Graduate Curriculum Committee

Minutes

May 11, 2023
Meeting Materials

Voting Conducted
via Zoom

I. Presentation and review of the Minutes from the April Meeting of the Graduate Curriculum Committee (GCC).

II. Update(s) to the Committee: The following was reviewed by the Graduate Curriculum Committee (GCC) previously. The GCC felt further follow-up and/or clarifications were necessary before the proposals could move forward to the University Curriculum Committee (UCC). Suggestions and/or follow-up required are noted below the proposals.

There are no updates to present at this time.

III. Course Change Proposals: The following proposals are newly requested revisions to existing courses already within the current course catalog in curriculum inventory. The changes requested are listed below each of the proposals.

COP - Pharmaceutical Outcomes and Policy

1. PHA 6273 *Structure, Process, and Outcomes of Regulation I*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18496

   Proposal has been approved by the GCC with a note to correct the syllabus provided to students.

COP - Pharmacotherapy and Translational Research

2. PHA 6427 *Pharmacogenetics of Drug Metabolism and Transport*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18477

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

COP - Pharmaceutics

3. PHA 6740 *Fundamentals of Grant Writing in the Pharm Sciences*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18476

   Proposal has been approved by the GCC.

IV. New Course Proposal(s) from the University Curriculum Committee: The following are newly requested course proposals that were presented at the April UCC meeting. Proposed course titles and descriptions are listed below.

ENG – Agricultural and Biological Engineering

1. *ABE 5XXX Controlled Environment Agriculture Principles and Practices*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17826

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

V. New Course Proposal(s) (with attached syllabi): The following are newly requested course proposals. Proposed course titles and descriptions are listed below. Syllabi have been included with these new course requests, at the request of GCC Members.

HHP – Applied Physiology and Kinesiology

1. APK 5XXXC *Clinical Anatomy for the Exercise Sciences*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17267

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

ENG – Civil and Coastal Engineering

2. CEG 6XXX *Nondestructive Testing and Geophysical Methods*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18281

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

ENG – Computer and Information Science and Engineering

3. CEN 5XXX *Human-Centered Input Recognition Algorithms*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17427

   Proposal has been conditionally approved. Once revised, the results will be shared with GCC Members before approval.

4. CIS 6XXXC *Cyber-physical System Security*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17805

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

ENG – Chemical Engineering

5. ECH 6XXX *Chemical Process Data Science*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17311

   Proposal has been conditionally approved. Once revised, the results will be shared with GCC Members before approval.

SFRC – Fisheries, Aquatic Sciences, and Geomatics

6. FAS 6XXX *Marine Protected Areas*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18280

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

CLAS – Geography

7. GEO 6XXX *Community Conservation Governance: Theory and Practice*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18453

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

8. GEO 6XXX *Wildlife Economy and Policy: The Governance and Economics of Wildlife on Working Landscapes*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18454

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

MED – Neuroscience

9. GMS 5XXX *Ticket to Ride as a Neuroscience PhD Graduate Student*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18483

   Proposal has been conditionally approved. Once revised, the results will be shared with GCC Members before approval.

10. GMS 6XXX *Statistics for Neuroscientists*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18288

    Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

MED – Molecular Genetics and Microbiology

11. GMS 6109 *Advanced Bacteriology*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18107

    Proposal has been conditionally approved. Once revised, the results will be shared with GCC Members before approval.

CALS – Microbiology and Cell Science

12. MCB 6XXX *Careers for Impact in Microbiology and Cell Science*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18379

    Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

13. MCB 6XXX *Innovation Project Management for Life Sciences*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18381

    Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.

VM - Physiological Sciences

14. VME 6XXX *New Approach Methodologies in Toxicology*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17827

    Proposal has been conditionally approved. Once revised, the results will be shared with GCC Members before approval.

VI. Information Items:

1. ANS 6312C – 18216 – Change to course title, description, and credit hours from 4 to 3
2. ECH 6843 – 17312 – Change to course title and description
3. ECO 7938 – 18334 – Change maximum repeatable credit from 8 to 20
4. EIN 6905 – 18413 – Change maximum repeatable credit from 9 to 15
5. ENU 5142 – 18269 – Change to course title, description, and pre-requisites
6. FIN 7938 – 18299 – Change maximum repeatable credit from 7 to 30
7. GEO 6706 – 18410 – Change to course title and description
8. PHI 6639 – 18406 – Change maximum repeatable credit from 6 to 18
9. PHI 6905 – 18407 – Change maximum repeatable credit from 9 to 12
10. PHI 7979 – 18408 – Change variable credit from 1-12 to 1-6 and the maximum repeatable credit from unlimited to 12
11. SPM 5206 – 18323 – Transfer of course ownership from APK to Sport Management

12. SPM 5309 – 18324 – Transfer of course ownership from APK to Sport Management
13. SPM 5506 – 18326 – Transfer of course ownership from APK to Sport Management
14. SPM 6036 – 18327 – Transfer of course ownership from APK to Sport Management
15. SPM 6106 – 18328 – Transfer of course ownership from APK to Sport Management
16. SPM 6158 – 18329 – Transfer of course ownership from APK to Sport Management
17. SPM 6726 – 18330 – Transfer of course ownership from APK to Sport Management

Graduate Curriculum Committee

Agenda

September 14, 2023
Meeting Materials

Voting Conducted
via Zoom

I. Presentation and review of the Minutes from the May Meeting of the Graduate Curriculum Committee (GCC).

II. Update(s) to the Committee: The following was reviewed by the Graduate Curriculum Committee (GCC) previously. The GCC felt further follow-up and/or clarifications were necessary before the proposals could move forward to the University Curriculum Committee (UCC). Suggestions and/or follow-up required are noted below the proposals.

MED – Neuroscience

1. GMS 5XXX *Navigating the Neuroscience PhD Program*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18483

   GCC requested revisions to the course title, course description, and course objectives. There were also concerns about the selected text. The Committee requested to re-review this proposal once revised. The unit has since revised the attached submission materials, attached here.

VM – Graduate Studies Committee

2. VME 6XXX *New Approach Methodologies in Toxicology*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17827

   GCC requested revisions to the course title, course description, objectives, assignment descriptions, and grading rubric. The Committee requested to re-review this proposal once revised. The unit has since revised the attached submission materials, attached here.

III. Course Change Proposals: The following proposals are newly requested revisions to existing courses already within the current course catalog in curriculum inventory. The changes requested are listed below each of the proposals.

MED – Neuroscience COP - Pharmaceutical Outcomes and Policy

1. GMS 6022 *Principles of Neurophysiology*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18547

   This is a request to change the credit hours from 3 to 2.

2. GMS 6701 *Functional and Comparative Neuroanatomy for Professionals*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18545

   This is a request to change the credit hours from 5 to 3.

COP – Pharmaceutical Outcomes and Policy

3. PHA 6279 *Pharmaceutical Outcomes and Policy Seminar*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18654

   This is a request to change the course to a capstone and update the course title from "Pharmaceutical Outcomes and Policy Seminar" to "Pharmaceutical Outcomes and Policy Capstone". They also request to change the credit hours, description, objectives, and prerequisites.

IV. New 5XXX Course Proposal(s) (with attached syllabi): The following are newly requested course proposals. Proposed course titles and descriptions are listed below. Syllabi have been included with these new course requests, at the request of GCC Members.

MED - Biochemistry and Molecular Biology

1. BCH 5206 *Medical Metabolism*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18717

   Metabolism will be taught in the context of medical situations. Lecture material will cover basic concepts in carbohydrate, lipid, and nitrogen metabolism. Students will enhance their understanding of human metabolism by applying their knowledge to the analysis and discussion of clinical case studies and primary literature with the metabolism field.

2. BCH 5930 *Journal Colloquy*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18718

   A one (1) credit online course in which primary literature articles in translational medicine will be assigned for reading and discussion. Homework questions and discussion board post will be used to determine student mastery of the material.

V. New Course Proposal(s) (with attached syllabi): The following are newly requested course proposals. Proposed course titles and descriptions are listed below. Syllabi have been included with these new course requests, at the request of GCC Members.

COE – School of Human Development and Organizational Studies in Education

1. EDF 7XXX *AI for Evaluation in Educational Environments*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18367

   This course provides knowledge and skills to implement AI methods to evaluate the effectiveness of educational programs and policies, investigate variability in program effects across groups and contexts, and optimize the matching of educational experiences to students.

2. EDH 6XXX *Academic and Student Affairs Collaborations*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18395

   Explores high impact partnerships between academic and student affairs that contribute to student learning and retention. Examines student characteristics and institutional contexts that correlate with student persistence to design and evaluate learning experiences for students.

3. EDH 6XXX *Coaching Models for Student Success in Higher Education*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18396

   Introduces techniques and methods for coaching, mentoring, and supporting student success in higher education, including but not limited to, academic coaching, life/career coaching, and wellness coaching. Explores skills to assess, design, implement, and evaluate effective coaching models and interventions.

ENG – Nuclear and Radiological Engineering

4. ENU 6XXX *Advanced Radiation Measurement Laboratory*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18260

   Advanced radiation detection methods and applications in the fields of nuclear safeguards, dosimetry, and nuclear medicine. Coverage of radiological non-destructive assay methods for materials control and accountability. Hands-on experience on state-of-the-art radiation detection instrumentation.

5. ENU 6XXX *Power Plant Simulation*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18266

   Instruction and practical experience in the operation and interpretation of results from major nuclear reactor simulation codes such as TRACE, RELAP5, RETRAN, CATHARE, and SAM.

CALS – Entomology and Nematology

6. ENY 6941 *Practical Work Experience*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18460

   Firsthand, authentic work experience in Entomology or Nematology under the supervision of a faculty member and workplace supervisor. Projects vary depending upon the program requirements.

SFRC – Forest Resources and Conservation

7. FOR 6XXX *Management and Restoration of Invaded Ecosystems*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17550

   This online course begins with an overview of the ecological basis for plant invasions in terrestrial ecosystems, with emphasis on applications for restoration and management of invaded ecosystems. Methods and techniques for prediction, prevention, control, and restoration will be discussed, and plant invasions from Florida and around the U.S. will be used as case studies. This course focuses heavily on applying scientific theory and research to on-the-ground management.

8. FOR 6XXXC *Urban Forestry*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18372

   Explores the nature, scope and components of the urban forest, including biology, culture, protection and aspects of management, planning and policy.

CALS – Microbiology and Cell Science

9. MCB 6937 *AI in Agricultural and Life Sciences*
   Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17091

   Artificial intelligence (AI) is used to solve problems in research and industry. This course provides students with an understanding of AI systems and how they can be applied to answer challenging questions in life sciences. Through online study materials and hands on exercises, students will obtain the skills and knowledge they need to use AI to solve real world life sciences problems.

JOU – Mass Communication

10. MMC 6XXX *Academic Writing*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18566

This course is designed to provide graduate students with practical knowledge and skills in various academic writing formats. The course focuses on three types of academic writing products: 1) research writing, 2) other publication writing, and 3) career/professional development materials, including but not limited to social scientific research papers, extended abstracts, conference presentations, letters to journal editors, responses to reviewers, and IRB protocols.

11. MMC 6XXX *Computer-Mediated Communications*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18790

    Computer-mediated communication (CMC) explores our understanding of how certain technology features in computing environments deliver messages, how people form bonds with each other online, and how unique networks are created through computing systems. Course topics include: interpersonal and hyper-personal models of communication, spatial and social presence, online dating, virtual reality, augmented reality, media addiction, location-based mobile media, and future CMC development.

12. MMC 6XXX *Critical and Cultural Theories in Media Studies*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18587

    Students will be introduced to the theoretical underpinnings of critical and cultural approaches to studying media. The course will trace the origins of critical/cultural and explores these developments to various schools of thought. Themes covered will include political economy, critical race theory, feminist media studies (both US centered and transnational), media globalization studies and cultural histories, to name a few. Students will engage with a broad range of readings that map

13. MMC 6XXX *Media Psychology*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18772

    Media psychology examines how we interact with media on the psychological level. Instead of focusing only on the user or the media, media psychology examines media use and effects as an interaction between media, content message, and users. The course helps you gain a general overview of the theories and methods in this area.

14. MMC 6XXX *Risk Communication*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18588

    Students examine theory and research related to the communication of health, environmental, technological, agricultural, and geological risks. The course looks at risk communication from multiple perspectives, including psychological, social, and cultural. The course will emphasize understanding, critiquing, and applying theories of risk communication.

PHHP – Biostatistics

15. PHC 6XXX *Statistical and Computational Analysis of Genomic Data*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18649

    The course will focus on statistical and computational methods/tools on next generation sequencing data analysis. Topics include introduction and analysis of DNA-seq, RNA-seq, ChIPseq, ATAC-seq and single-cell genomics. In addition, the course will illustrate how to use R/Bioconductor R packages to handle common types of genomic data.

VM – Graduate Studies Committee

16. VME 6XXX *Ecotoxicology*
    Link to proposal: https://secure.aa.ufl.edu/Approval/reports/17699

    This course will present conceptual and fundamental knowledge required to discern the impacts of environmental contaminants on wildlife and ecosystems.

VI. Information Items:

1. EME 5404 – 18455 – Change prerequisites
2. EME 6637 – 18457 – Change course title and prerequisites
3. PHA 6856 – 18776 – Change course title
4. PHA 6905c – 18370 – Change course title
5. PHC 6068 – 18593 – Change course number, description, and objectives
6. SUR 6377 – 18428 – Change prerequisites

GMS 5XXX Ticket to Ride as a Neuroscience PhD Graduate Student (18483)

Please address the following concerns expressed by the Graduate Curriculum Committee after their complete review of this new course request --- once addressed, the results will be shared with GCC Members before approval.

The GCC recommends the following revisions to the submitted form (and syllabus where appropriate):

1) Consider revisions to the course title. Title doesn't seem very appropriate for publicly published material and is not very descriptive in relation to the course content. Perhaps "Navigating the Neuroscience PhD. Program"

2) Course description needs minor revisions.

    a) The course description on the submitted form cuts off at the end.

    b) Delete introductory words to reduce unneeded introduction to simply begin with "Provides students . . "

    c) Ensure that the course description on the submitted form and syllabus match.

3) The objectives should be revised. There doesn't appear to be any student objectives here at all, which speaks to the larger issue of what is supposed to be accomplished in this course and whether this should be accomplished outside of a formal course (for example, the IDP process should be handled by committee chair)

4) There are concerns that the selected text is appropriate for the content (it is generally described as diverting and amusing)

Course|New for request 18483

Info

Request: GMS 5XXX Navigating the Neuroscience PhD Program
Description of request: Provides students with fundamental skills, knowledge, and strategies to thrive in graduate school and beyond. Slides will be used in each class for the purposes of stimulating interaction and discussion. The course director will draw on her own experiences to stimulate discussion and periodically invite other faculty to join the class when the discussion will be enhanced by their inclusion. Two senior graduate students who have passed their qualification exam will serve as teaching assistants who will also share their experiences and help stimulate discussion.
Submitter: Ikiah Young ilyoung@ufl.edu
Created: 8/3/2023 1:35:33 PM
Form version: 4

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
GMS

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
5

Rationale for 5000 level course request
Please provide the rationale for submitting this course as a 5000 level course in the space provided below. (i.e. target audience, program, school). 5000 level courses may need additional, joint review by the University Curriculum Committee and Graduate School.

Response:
The program aims to prepare the students for a career in neuroscience. This class introduces relevant professional skills and personal strategies to the students to help them to thrive in graduate school and prepare for their desired career trajectory after graduation. We have positioned this course as the first course students will take in graduate school to provide them with early tools and strategies to be successful.

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Introductory

- *1000 level = Introductory undergraduate*
- *2000 level = Introductory undergraduate*
- *3000 level = Intermediate undergraduate*
- *4000 level = Advanced undergraduate*
- *5000 level = Introductory graduate*
- *6000 level = Intermediate graduate*
- *7000 level = Advanced graduate*
- *4000/5000= Joint undergraduate/graduate*
- *4000/6000= Joint undergraduate/graduate*

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Navigating the Neuroscience PhD Program

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Navigating the Neuro PhD Prog

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Fall

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2023

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
Yes

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:

1

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
Yes

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
1

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:

To provide first year PhD students with the basic knowledge that they need to succeed in graduate school and position them to achieve their career goals. This class will help align the students' expectations with those of the neuroscience program.

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
No prerequisites. Student must be in the first year of the Neuroscience PhD program.

Completing Prerequisites on UCC forms:

• Use "&" and "or" to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
The program aims to prepare the students for a career in neuroscience. This class introduces relevant professional skills and personal strategies to the students to help them to thrive in graduate school and prepare for their desired career trajectory after graduation. We have positioned this course as the first course students will take in graduate school to provide them with early tools and strategies to be successful.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
The students will interact with their peers, the TAs and the course director on critical topics of interest to them as well as topics that our faculty view as important for the students' success within our program and in a career in neuroscience. The peer support network that is built through these discussions will support student success in their PhD studies. Based on in-class and individual discussions, this course will be used to shape how the Neuroscience program individualizes each student's experience in their graduate training.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
"Piled Higher and Deeper: A Graduate Student Comic Strip Collection", Author: Jorge Charm, June 1, 2002 (not required)

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Weekly Schedule of Topics:

Week Title Topic
1 Guess Who Finding and Identifying Matches in Mentor, lab and research focus
Students will be guided through ways to engage potential mentors and their lab members, how to determine if the lab meets their needs, and to self-assess what their individual needs and learning styles are. Timelines and expectations of the program will also be conveyed.

2 Trivial Pursuit What are the topics of your questions as you enter and navigate graduate school education?
Students will be engaged to determine their self-identified needs and address questions they have about graduate level education and neuroscience careers. These items will be addressed in this specific class or in other classes throughout the semester

3 Jenga Finding Balance in School, Work and Life
A guest faculty will join the course director in discussing common struggles for school, work, and life with the students. Students will be encouraged, but not required, to offer their own challenges (in an anonymous survey) that they face and discussions will include those shared in the survey. Students will be directed to existing resources that are available within UF and otherwise in the event that additional support or need a confidential forum in which to engage professional services arises in the future.

4 Dungeons and Dragons Responsibilities of each party as you quest for your success
A graduate program director and the course director will convey general expectations and reasonable metrics that should be used for assessing student's own performance and progress in graduate school. Additionally, the graduate program director and course director will convey what the responsibilities of the program, mentor, and lab members should be to each other and the students. This class will also provide students tools to ensure that expectations are met by each entity and how to address issues that may arise.

5 Pandemic What to Expect and the Unexpected as a Graduate Student
A guest faculty member and the course director will openly discuss the impact of the pandemic and other unexpected set-backs on their research and encourage students to share their experiences. Resilience strategies for negative impacts and strategies to position themselves for unexpected positive outcomes will be discussed.

6 Clue Using clues to solves research mysteries
This class will focus on rigor, reproducibility, unbiased, open and team science and how to incorporate that into their research. This class will also discuss strategies for reading, assessing and interpreting publications or research presentations, particularly in the context of limited time and many time demands.

7 Monopoly Owning your own project
This class will discuss expectations for owning their research project and when and to what extent that is expected. We will also guide their understanding of authorship roles, authorship order and reasonable and unreasonable expectations. This class will also cover who should be deemed an appropriate author, touching on “courtesy” authorship and how to avoid that.

8 Connect Four Finding and Being Allies
This class will focus on building community in graduate school and in future careers and will include discussions on doing so when one is under-represented in research.

9 Axis & Allies Establishing Collaboration and Cooperation
This class will discuss how to find and build collaborations, how to cooperate and comprise in collaborations, and when a collaboration should be started and stopped.

10 Outburst Managing Internal and External Conflicts
This class will discuss inevitable self-comparisons that give rise to internal and external conflicts as well as strategies for having difficult conversations with peers, supervisors and, eventually, mentees.

11 Werewolf Identifying and Overcoming Imposter Syndrome
A guest faculty will be invited and will join the course director in discussing imposter syndrome and how to recognize, avoid and confront their own imposter syndrome. The course director and guest faculty will convey their own experiences and strategies.

12 Chutes and Ladders Persistence and Resilience in the Face of Setbacks

A guest faculty will join the course director in discussion with the students about how they have faced perceived failures of set-backs, strategies that they have deployed to be resilient in setbacks, and when a new direction might be the solution.

13 Scrabble How to spell authorship and “words” that are not allowed
This class will specifically deal with plagiarism, retraction, rigor, and reproducibility.

14 Deal or No Deal Qualification and Defense Exams
One of the program directors will join the course director in a discussion about programmatic expectations for qualification and defense exams and how to prepare for those exams. Additionally, strategies on how to listen and provide focused answers will be discussed.

15 Scattergories Careers that Start with PhD
A pre-class survey will be given to determine the careers that our students are interested in and the presentation/discussion will focus on those careers. Additionally, careers that may be less well-known will be introduced as potential.

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and

grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
S/U

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Jada Lewis, Ph.D.

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE SYLLABUS
NEUROSCIENCE

Course number: GMS 5XXX (1 credit)
Course Name: Navigating the Neuroscience PhD Program
Fall 2023
In person (except where noted), 4-5pm Wednesday

Instructor Name: Dr. Jada Lewis
Phone Number: 352-273-9666
Email Address: jada.lewis@ufl.edu
Office Hours: BMS J485, Friday, 3-5pm
Graduate Teaching Assistant (TA): 2 senior graduate students (post-qual)
Preferred Course Communications: email or Canvas
Prerequisites: No prerequisites. Student must be in the first year of the Neuroscience PhD program.

Purpose and Outcome: Provides first year PhD students with the basic knowledge that they need to succeed in graduate school and position them to achieve their career goals. This class will help align the students' expectations with those of the neuroscience program.

Course Overview: Provides students with fundamental skills, knowledge, and strategies to thrive in graduate school and beyond. Slides will be used in each class for the purposes of stimulating interaction and discussion. The course director will draw on her own experiences to stimulate discussion and periodically invite other faculty to join the class when the discussion will be enhanced by their inclusion. Two senior graduate students who have passed their qualification exam will serve as teaching assistants who will also share their experiences and help stimulate discussion.

Relation to Program Outcomes: Prepares students for a career in neuroscience. Introduces relevant professional skills and personal strategies to the students to help them to thrive in graduate school and prepare for their desired career trajectory after graduation.

Course Objectives and/or Goals: The students will interact with their peers, the TAs and the course director on critical topics of interest to them as well as topics that our faculty view as important for the students' success within our program and in a career in neuroscience. The peer support network that is built through these discussions will support student success in their PhD studies. Based on in-class and individual discussions, this course will be used to shape how the Neuroscience program individualizes each student's experience in their graduate training.

Instructional Methods: A mixture of instructor-led didactics, out of class self-assessment, and interactive discussions.

What is expected of the student?
Students are expected to actively engage in the course throughout the semester. Students must introduce questions or issues that they have questions about program, graduate studies and research and actively participate in discussion. As students must engage programmatic faculty to identify rotation mentors and they should employ skills learned in the class to choose their graduate laboratory. Students should develop strong understanding of resources that exist to address questions/issues that arise in the program and identify issues where resources do not exist that they can justify needing for their own individual success.

Attendance is required and failure to attend may result in the student struggling to build critical knowledge and skills needed to thrive in the Neuroscience PhD program. Similarly, individuals are expected to actively participate in class discussions and self-reflection. Their participation fosters a rich course experience for the student and their peers that facilitates overall mastery of the course objectives.

Weekly Schedule of Topics:

Week	Title	Topic
1	Guess Who	*Finding and Identifying Matches in Mentor, lab and research focus* Students will be guided through ways to engage potential mentors and their lab members, how to determine if the lab meets their needs, and to self-assess what their individual needs and learning styles are. Timelines and expectations of the program will also be conveyed.
2	Trivial Pursuit	*What are the topics of your questions as you enter and navigate graduate school education?* Students will be engaged to determine their self-identified needs and address questions they have about graduate level education and neuroscience careers. These items will be addressed in this specific class or in other classes throughout the semester
3	Jenga	*Finding Balance in School, Work and Life* A guest faculty will join the course director in discussing common struggles for school, work, and life with the students. Students will be encouraged, but not required, to offer their own challenges (in an anonymous survey) that they face and discussions will include those shared in the survey. Students will be directed to existing resources

		that are available within UF and otherwise in the event that additional support or need a confidential forum in which to engage professional services arises in the future.
4	Dungeons and Dragons	*Responsibilities of each party as you quest for your success* A graduate program director and the course director will convey general expectations and reasonable metrics that should be used for assessing student's own performance and progress in graduate school. Additionally, the graduate program director and course director will convey what the responsibilities of the program, mentor, and lab members should be to each other and the students. This class will also provide students tools to ensure that expectations are met by each entity and how to address issues that may arise.
5	Pandemic	*What to Expect and the Unexpected as a Graduate Student* A guest faculty member and the course director will openly discuss the impact of the pandemic and other unexpected set-backs on their research and encourage students to share their experiences. Resilience strategies for negative impacts and strategies to position themselves for unexpected positive outcomes will be discussed.
6	Clue	*Using clues to solves research mysteries* This class will focus on rigor, reproducibility, unbiased, open and team science and how to incorporate that into their research. This class will also discuss strategies for reading, assessing and interpreting publications or research presentations, particularly in the context of limited time and many time demands.
7	Monopoly	*Owning your own project* This class will discuss expectations for owning their research project and when and to what extent that is expected. We will also guide their understanding of authorship roles, authorship order and reasonable and unreasonable expectations. This class will also cover who should be deemed an appropriate author, touching on "courtesy" authorship and how to avoid that.
8	Connect Four	*Finding and Being Allies*

		This class will focus on building community in graduate school and in future careers and will include discussions on doing so when one is under-represented in research.
9	Axis & Allies	*Establishing Collaboration and Cooperation* This class will discuss how to find and build collaborations, how to cooperate and comprise in collaborations, and when a collaboration should be started and stopped.
10	Outburst	*Managing Internal and External Conflicts* This class will discuss inevitable self-comparisons that give rise to internal and external conflicts as well as strategies for having difficult conversations with peers, supervisors and, eventually, mentees.
11	Werewolf	*Identifying and Overcoming Imposter Syndrome* A guest faculty will be invited and will join the course director in discussing imposter syndrome and how to recognize, avoid and confront their own imposter syndrome. The course director and guest faculty will convey their own experiences and strategies.
12	Chutes and Ladders	*Persistence and Resilience in the Face of Setbacks* A guest faculty will join the course director in discussion with the students about how they have faced perceived failures of set-backs, strategies that they have deployed to be resilient in setbacks, and when a new direction might be the solution.
13	Scrabble	*How to spell authorship and "words" that are not allowed* This class will specifically deal with plagiarism, retraction, rigor, and reproducibility.
14	Deal or No Deal	*Qualification and Defense Exams* One of the program directors will join the course director in a discussion about programmatic expectations for qualification and defense exams and how to prepare for those exams. Additionally, strategies on how to listen and provide focused answers will be discussed.
15	Scattergories	*Careers that Start with PhD* A pre-class survey will be given to determine the careers that our students are interested in and the

		presentation/discussion will focus on those careers. Additionally, careers that may be less well-known will be introduced as potential.

Final Exam: Students will have two weeks to complete a student project on one topic covered in the course. Each student will develop a critical question/issue that graduate students in the program may have and detail what solutions or resources currently exist at UF and/or detail and justify what resources should be created to help graduate students navigate the issue.

Supportive Course Materials and Technology: "Piled Higher and Deeper: A Graduate Student Comic Strip Collection", Author: Jorge Charm, June 1, 2002 (not required)

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- UF eLearning

Academic Requirements and Grading:
10% Monthly individual discussions with Course Director and/or Teaching Assistants
30% Individual Project
60% Class Participation / In-class activities. Note: attendance is not sufficient for participation. This category will consist of in-class problems, discussions, or other activity during the scheduled course time. Attendance will not be taken, but if you fail to show up to class, you will miss opportunities to get participation credits, see attendance policy below.

Grading:
S/U

Exam Policy: No exams, Individual Project serves as final exam

Policy Related to Required Class Attendance: Attendance is expected for all classes. Anticipated absences should be discussed with the instructors as far in advance as possible.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance). Additional

information can be found here:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Expectations Regarding Course Behavior:
Attendance is required, with excused absences handled as describe above.
Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Communication Guidelines: http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

Academic Integrity: Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

"**We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity**."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:
https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/
http://gradschool.ufl.edu/students/introduction.html
Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process:
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/ . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety.

Support Services:

Accommodations for Students with Disabilities:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/ . It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health:

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: http://www.counseling.ufl.edu. On line and in person assistance is available.

- You Matter We Care website: http://www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.

- The Student Health Care Center at UF Health is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at UF Health offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: https://shcc.ufl.edu/

- UF Health Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,Gainesville, FL 32698, ufhealth.org/emergency-room-trauma-center.

- University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).

- Crisis intervention is always available 24/7 from:
  Alachua County Crisis Center:
  (352) 264-6789
  http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services career.ufl.edu/.
Library Support: cms.uflib.ufl.edu/ ask various ways to receive assistance with respect to using the libraries or finding resources.
Teaching Center: Broward Hall 352-392-2010 or to make an appointment 352 392-6420. General study skills and tutoring. teachingcenter.ufl.edu/
Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. writing.ufl.edu/writing-studio/
Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/
On-Line Students Complaints: distance.ufl.edu/student-complaint-process

VME 6XXX (17827) New Approach Methodologies in Toxicology

Please address the following concerns expressed by the Graduate Curriculum Committee after their complete review of this new course request --- once addressed, the results will be shared with GCC Members before approval.

The GCC recommends the following revisions to the submitted form (and syllabus where appropriate):

1) Course description needs minor revisions.

    a) Delete introductory words to reduce unneeded introduction to simply begin with "Introduces students. . . "

    b) Seems too brief to be useful for students selecting courses. Some of the language in the rationale seems appropriate

    c) Ensure that the course description on the submitted form and syllabus match.

2) Course objectives need editing and strengthening. The objectives read more like description. Look at the objectives within some of your own existing courses for examples.

3) Provide more detail regarding assignments. "Example" assignments are included, but it is not clear how many total assignments are required and what the structure of each one is.

4) The rubrics provided seem too simple to be of use. Curious about method of grading participation in the 1-hour discussion each week because it is a pretty high percentage of the grade, 20% if understood correctly.

5) The syllabus should contain the expected course number (e.g., 6XXX)

6) The syllabus should contain the University recommended information about recordings since this is an online course. Follow syllabus the guidelines found here: http://syllabus.ufl.edu/syllabus-policy/

Course|New for request 17827

Info

Request: VME 6XXX New Approach Methodologies in Toxicology
Description of request: The online course is being developed for an online certificate program in Regulatory Toxicology for post-graduate training.
Submitter: Christopher Vulpe cvulpe@ufl.edu
Created: 7/31/2023 1:29:31 PM
Form version: 11

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
VME

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
New Approach Methodologies in Toxicology

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
NAMs in Toxicology

Degree Type
Select the type of degree program for which this course is intended.

Response:
Professional

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the

department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Spring

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2023

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
New Approach Methodologies are a rapidly evolving set of computational and cell based model systems as an alternative to traditional animal based testing which are transforming the fields of toxicology, hazard and exposure assessment, and regulation. Introduce students to New Approach Methodologies, the diversity of methods, their emerging use in regulatory toxicology, and ongoing discussions about their strengths and limitations.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:

Permission of the program.

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
No course currently exists at the University of Florida, or to our knowledge at any University within the United States, which covers the subject matter of the course. New Approach Methodologies in Toxicology is a rapidly evolving field that is transforming the fields of toxicology, hazard and exposure assessment, and regulation. This course will introduce students to the history of New Approach Methodologies, the diversity of methods, and their emerging use in regulatory toxicology.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
Upon successful completion of the course, students will be able to:
1. Synthesize and contrast the moral, scientific, and regulatory imperatives which underlie the use of NAMs in toxicology.
2. Summarize and illustrate current and potential application scenarios for NAMs in different toxicology contexts.
3. Compare the strengths and limitations of animal-based testing and NAMs based testing in hazard identification and risk assessment.
4. Identify the key current knowledge, technical and application gaps in the application of NAMs in risk assessment in a regulatory context.

5. Evaluate novel NAMs based on key criteria identified during the course for their reliability, reproducibility, and their regulatory utility.
6. Conceptually design or refine a NAM to address a current gap in risk assessment capabilities.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
There is no single textbook available that cover the material necessary for the course. Instead, the course will utilize selected textbook chapters, journal articles, regulatory guidance documents, and reports by different expert bodies, such as the National Academy of Sciences.
Alternative methods
Balls, M., Combes, R., and Worth, A. 2019. The History of Alternative Test Methods in Toxicology. London, England: Elsevier. https://www.elsevier.com/books/the-history-of-alternative-test-methods-in-toxicology/balls/978-0-12-813697-3

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Grimm, D. 2019. U.S. EPA to eliminate all mammal testing by 2035. In sciencemag.org. American Association for the Advancement of Science.
Hartung, T. 2010. Evidence-based toxicology - the toolbox of validation for the 21st century? Altex 27:253-263. https://pubmed.ncbi.nlm.nih.gov/21240468/
Two-dimensional in vitro cell culture systems
Karwelat D, Kühnlenz J, Steger-Hartmann T, Bars R, Tinwell H, Marx U, Bauer S, Born O, Raschke M. A rodent thyroid-liver chip to capture thyroid toxicity on organ functional level. ALTEX. 2022 Jun 21. doi: 10.14573/altex.2108262. Epub ahead of print. PMID: 35791291.

Rim, Kyung-Taek. "In vitro models for chemical toxicity: review of their applications and prospects." Toxicology and Environmental Health Sciences 11.2 (2019): 94-103.

Advanced in vitro tissue culture systems
Duval, K., Grover, H., Han, L., et al. (2017). Modeling physiological events in 2D vs. 3D cell culture. Physiology. 32:266-277. https://pubmed.ncbi.nlm.nih.gov/28615311/

Antoni, D., Burchel, H., Josset, E., and Noel, G. (2015). Three-dimensional cell culture: a breakthrough in vivo. Int J Mol Sci. 16:5517-5527. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4394490/

Chen, S. and Schoen, J. (2019). Air-liquid interface cell culture: From airway epithelium to the female reproductive tract. Reprod Domest Anim. 54 Suppl 3:38-45. https://pubmed.ncbi.nlm.nih.gov/31512315/

Truskey, G.A. (2018). Human microphysiological systems and organoids as in vitro models for toxicological studies. Front Public Health. 6:185. https://pubmed.ncbi.nlm.nih.gov/30042936/

Non-vertebrate animals
Lillicrap A, Belanger S, Burden N, Du Pasquier D, Embry MR, Halder M, Lampi MA, Lee L, Norberg-King T, Rattner BA, Schirmer K. Alternative approaches to vertebrate ecotoxicity tests in the 21st century: A review of developments over the last 2 decades and current status.

Environmental toxicology and chemistry. 2016 Nov 1;35(11):2637-46. https://pubmed.ncbi.nlm.nih.gov/27779828/

Computational and Integrative Methodologies
Cronin, M. T., & Yoon, M. (2019). Computational methods to predict toxicity. In The History of Alternative Test Methods in Toxicology (pp. 287-300). Academic Press. https://www.sciencedirect.com/science/article/pii/B9780128136973000317

Hong, Huixiao. "Advances in Computational Toxicology." (2019).
Computational Toxicology. Risk Assessment for Pharmaceutical and Environmental Chemicals, 2nd Edition Sean Ekins, (Hoboken, NJ: John Wiley & Sons, Inc.), 2018,). ISBN 978-1-119-28258-7 (E-book).
Cushing L, Faust J, August LM, Cendak R, Wieland W, Alexeeff G. Racial/Ethnic Disparities in Cumulative Environmental Health Impacts in California: Evidence From a Statewide Environmental Justice Screening Tool (CalEnviroScreen 1.1). Am J Public Health. 2015 Nov;105(11):2341-8. doi: 10.2105/AJPH.2015.302643. Epub 2015 Sep 17. PMID: 26378826; PMCID: PMC4605180.

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Garcia-Reyero, N. 2018. Advancing Adverse Outcome Pathways for Risk Assessment. In A Systems Biology Approach to Advancing Adverse Outcome Pathways for Risk Assessment, edited by N. Garcia-Reyero, and C. Murphy: Springer International Publishing. https://link.springer.com/chapter/10.1007/978-3-319-66084-4_1

National Toxicology Program 2020. Adverse Outcome Pathways. (https://ntp.niehs.nih.gov/whatwestudy/niceatm/test-method-evaluations/comptox/ct-aop/aop.html).
Noyes, P. D., Friedman, K. P., Browne, P., Haselman, J. T., Gilbert, M. E., Hornung, M. W., Barone, S., Jr., Crofton, K. M., Laws, S. C., Stoker, T. E., Simmons, S. O., Tietge, J. E., and Degitz, S. J. 2019. Evaluating Chemicals for Thyroid Disruption: Opportunities and Challenges with in Vitro Testing and Adverse Outcome Pathway Approaches. Environmental health perspectives 127:95001. https://pubmed.ncbi.nlm.nih.gov/31487205/

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Chemical regulation and alternative-to-animal toxicity testing methods

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ICCVAM (Interagency Coordinating Committee on the Validation of Alternative Methods). 2018. A Strategic Roadmap for Establishing New Approaches to Evaluate the Safety of Chemicals and Medical Products in the United States. Available: https://ntp.niehs.nih.gov/go/iccvam-rdmp. https://dx.doi.org/10.22427/NTP-ICCVAM-ROADMAP2018
Russell, W., and Burch, R. 1959. The principles of humane experimental technique. In The principles of humane experimental technique. London, England: Methuen. https://caat.jhsph.edu/principles/the-principles-of-humane-experimental-technique

US EPA. 2018. Strategic Plan to Promote the Development and Implementation of Alternative Test Methods Within the TSCA Program. Office of Chemical Safety and Pollution Prevention EPA-740-R1-8004, no. (June 22, 2018). https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/strategic-plan-reduce-use-vertebrate-animals-chemical

US EPA. 2019. First Annual Conference on the State of the Science on Development and Use of New Approach Methods (NAMs) for Chemical Safety Testing. Office of Chemical Safety and Pollution Prevention and Office of Research and Development https://www.epa.gov/chemical-research/first-annual-conference-state-science-development-and-use-new-approach-methods-0 (January 27, 2020).
US EPA. Wheeler, A. 2019. Memorandum: Directive to Prioritize Efforts to Reduce Animal Testing. (September 10, 2019). https://www.epa.gov/research/administrator-memo-prioritizing-efforts-reduce-animal-testing-september-10-2019. Discussed in Grimm, D. 2019. U.S. EPA to eliminate all mammal testing by 2035. In sciencemag.org. American Association for the Advancement of Science. https://www.sciencemag.org/news/2019/09/us-epa-eliminate-all-mammal-testing-2035
EURL ECVAM Status Report on the Development, Validation and Regulatory Acceptance of Alternative Methods and Approaches (2019). https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/eurl-ecvam-status-report-development-validation-and-regulatory-acceptance-alternative-4

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Based on a survey of courses offered in the College of Public Health and Health Professions, the College of Veterinary Medicine, and in toxicology courses at the University of Florida, no other courses cover the subject matter of this course.

Each module will incorporate 3 contact hours and be presented within each week. Two hours will include a lecture on the topic that include background, biology, and toxicology, with examples of how the concepts are applied in the field. The third hour will incorporate discussion of a reading assignment including a response/critique of two other student responses.

Module 1: Introduction to alternative methods/ Assignment #1 / Quiz #1
Lecture 1: Historical overview of the development of current toxicity testing approaches for both humans and ecosystems.
Lecture 2: Variability and reproducibility in in vivo systems, prediction of human/ecosystem health.

Discussion: What drove the development of animal testing for regulatory assessments?

Module 2: Rationale and impetus for development of alternative methods / Assignment #2 / Quiz #2
Lecture 1: Ethical and regulatory imperatives for development of alternative methods. 3Rs movement, the two NRC reports, REACH, EPA directive, EPA work plan, TSCA update, current use in industry.
Lecture 2: Overview of major classes of alternative methods. Cell based assays, 2D, 3D cultures, multi-cellular culture, organs on a chip, non-vertebrate animals, computational methods
Discussion: How do the ethical and regulatory imperatives intersect in the rationale for NAMs?

Module 3: Introduction to two-dimensional cell culture-based testing systems/ Assignment #3 / Quiz #3
Lecture 1: Cell types, endpoints, assays, metabolism, immortalized vs primary cells, HepaRG, cell and tissue specific tests
Lecture 2: Cell models for ecotoxicology.
Discussion: What are the advantages and limitations of 2D cell culture as toxicity models?

Module 4: High throughput toxicity testing with cell-based systems / Assignment #4 / Quiz #4

Lecture 1: Introduction to ToxCast (now called CompTox), Tox21 – Assays, metabolism, purity, cytotoxicity, AC50 values.
Lecture 2: Application of ToxCast/CompTox,Tox 21 data analysis by different regulatory bodies, ExpoCast.
Discussion: What are the major issues that have been raised about the use of ToxCast/CompTox data in a regulatory context?

Module 5: 3D cell-based culture systems / Assignment #5 / Quiz #5
Lecture 1: Spheroids, organoids
Lecture 2: 3D framework hepatic cells, Air-liquid interface models.
Discussion: What capabilities do 3D based systems bring to toxicity testing as compared to 2D testing and what remain as limitations in their uses?

Module 6: Primary cell, iPSC derived cells / Assignment #6 / Quiz #6
Lecture 1: Primary cell-based assays, immortalized primary cells.
Lecture 2: iPSC derived cell types, different cell and tissue types of interest.
Discussion: How do primary cells or tissue samples differ from iPSC derived differentiated cells and what is the implication for toxicity assessment?

Module 7: Multi-cell type culture systems, organ on a chip / Assignment #7 / Quiz #7
Lecture 1: Macro co-culture approaches, tissue specific models, liver, brain, lung.
Lecture 2: Organ-on-a-chip systems.
Discussion: How do the multitude of organ on chip methods complicate their use in a regulatory context?

Module 8: Addressing Genetic Variability /Assignment #8 / Quiz #8
Lecture 1: Review role of genetic variability in toxicity, safety factors, current approaches, mixed population S9 extracts.
Lecture 2: Approaches to assess in vitro models, population models, genetically diverse cell models.
Discussion: What are public health implications of using model systems lacking diversity in toxicity testing?

Module 9: Case Studies of successful alternative methods/ Assignment #11 / Quiz #11
Lecture 1: Skin models, skin sensitization
Lecture 2: Eye toxicity, inhalation and MucilAirTM
Discussion: What do the NAMs recently proposed or adopted for regulatory acceptance share in common and what barriers exist to the adoption of other NAMs in regulatory practice.

Module 10: Non-animal models / Assignment #10 / Quiz #10
Lecture 1: Bacteria, yeast, C. elegans.
Lecture 2: D. magna, Zebrafish embryo bio-assays
Discussion: What is an animal in regulatory toxicology, and what are the implications and issues with regard to their uses?

Module 11: Introduction to Computational Approaches/ Assignment #11 / Quiz #11
Lecture 1: Currently utilized approaches: read-across, QSARS, PBPK/D models, IVIVE
Lecture 2: Next steps, emerging computational approaches, ExpoCast
Discussion: What are the inherent limitations of computational approaches in toxicology and caveats with it adoption for regulatory decision making?

Module 12: Integrated Approaches/ Assignment #12/ Quiz #12
Lecture 1: Mode of action, pathway mapping.
Lecture 2: Adverse Outcome Pathways (AOPs)
Discussion: How are integrated approaches utilized in fit-for-purpose regulatory decision making?

Module 13: OMICS technologies in alternative models / Assignment #13/ Quiz #13
Lecture 1: Transcriptomics, S1500+ gene set, high throughput gene expression
Lecture 2: proteomics, lipidomics, other omic technologies.
Discussion: What are the issues in the interpretation of correlative genomic studies in risk assessment? What is the the difference between causality and correlation?

Module 14: Validation/Testing and Acceptance of Alternative methods/ Assignment #14 / Quiz #14

Lecture 1: Fit for purpose, context of use, biological plausibility.

Lecture 2: Evaluation frameworks (OECD GD211, GD34), international bodies (ICCVAM, ICATM, OECD),

Discussion: What are the major barriers currently in the utilization of NAMs in a regulatory context? How could these barriers be overcome?

Module 15: Outstanding issues in NAMs and the Future for NAMs in toxicity testing /Assignment #15/ Quiz #15.

Lecture 1: Will NAMs ever replace animal studies? Reproducibility and reliability issues in NAMs.

Lecture 2: Current unmet needs in NAMs, and how to design and evaluate a NAM for regulatory use.

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Grading Scheme

Each module will include a quiz, an assignment, and discussion for a total of 15 of each type. Quizzes will comprise 45% of the total grade, 45% is assignments, and the remaining 10% is participation in the discussion.

Quiz Format: Each quiz will contain 3 short answer questions extracted from the lecture notes and assigned readings. Students will be required to provide short answer responses that focus on understanding of the lecture. The quizzes will be time limited to 30 minutes to ensure academic integrity. Each quiz will worth 3 pts for a total of 45 pts for 15 quizes. Each short answer response will receive full credit (1 pt), ½ credit (1/2 pt), or no credit for a score between 0-3 pts.

Assignment Format: There will be one assignment for each module with a total of 15 assignments. Each assignment will consist of primary data or material which the student has not previously encountered in the class. The format of the assignment will be a short critical evaluation of the provided data set which highlights key technical and interpretation issues such as underlying assumptions, application of appropriate analysis tools, and technical application caveats or limitations. Additionally, the student will be asked to propose additional work that could be used to address an issue identified by the student. The weekly assignments will be due the week after the material is covered in lecture/discussion on Friday (e.g. for Module 1, it would be due the following week). The assignments will be submitted online. Example module assignments include:

Module 4: High throughput toxicity testing with cell-based systems.

An example of EPA high throughput testing data (e.g.ToxCast) data set will be provided to the students. Students will need to explain the assay systems being used, explain quality control issues to be addressed, consider appropriate analysis approaches, and interpret the data with appropriate caveats and limitations. The student will be asked to provide one additional experiment that could address one of the issues identified by the student.

Rubric:

Exceeds standard – student correctly identifies the assays, identifies two QC issues, suggests appropriate analysis, and provides reasoned interpretation. Suggests a reasonable experimental approach to address limitations (considerable flexibility will be allowed here and practicality will not be primary consideration)

Meets standard – student omits no more than one of the key issues.

Nearly meets standard – student omits two of the key issues.
Does not meet standard – student does not identify any key issue.

Module 6: Primary cell, iPSC derived cells
The student will be provided with toxicity data obtained from primary cells and iPSC cells of the same cell type. The student will be asked to compare the results and discuss the reproducibility, reliability, and concordance of the results and comment on the experimental issues that could be contributing to the observed similarities and differences. The student will will be asked to suggest one experimental approach to address limitations identified in their analysis.

Rubric:
Exceeds standard – student correctly describes the reproducibility of each studies, and provides an explanation of reliability as related to toxicity studies, and identifies at least two issue that could explain similarities/differences in the results. Suggests a reasonable experimental approach to address limitations (considerable flexibility will be allowed here and practicality will not be primary consideration)

Meets standard – student omits no more than one of the components indicated above, eg. Does not address reproducibility but addresss other metrics.
Nearly meets standard – student omits no more than two of the components indicated above.
Does not meet standard – student omits more than two of the components above.

Discussion Format: Students will be provided with a short reading assignment about a controversial issue in NAM use, application, or interpretation which is relevant to the week's topic. Each student will be required to participate in the online discussion on the topic where they provide their individual perspective/thoughts on the topic, provide rationale and support for their viewpoints while also providing feedback to two other students. The goal is to encourage the students to engage with the topic rather than come to any particular consensus on the best approach. Each student will be responsible for participating in at least 10 of the 15 module topics. Participation for a module topic is defined as submission of at least a one paragraph to the discussion board, and a response (at least three sentences) to at least two other participants submissions. The quality of the submissions and responses will not be evaluated. Ten points will be given for each module participation up to a maximum of 100 pts which will comprise the 10% participation score.

Grading Scale

Percent	Grade	Grade Points
90.0 - 100.0	A	4.00
87.0 – 89.9	A-	3.67
84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 77.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:
UF Graduate Catalog
Grades and Grading Policies

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Instructors:
Name: Chris Vulpe
Email Address: cvulpe@ufl.edu
Office Phone: Online
Office Hours: Online

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

New Approach Methodologies in Toxicology

VME 6XXX (17827) Section: xx
Location: Online
Academic Term: xx

Instructors:

Name: Chris Vulpe
Email Address: cvulpe@ufl.edu
Office Phone: Online
Office Hours: Online

Teaching Assistants:

- Name of TA, email address, office location, office hours

Preferred method for communication.

This course is part of the distance education program at the University of Florida. Instead of traditional lecture format, the medium for communication between course instructors, teaching assistants and students will be via Canvas, a user-friendly web-based classroom management tool, and the World Wide Web.

Please contact TA and instructor through the Course Inbox rather than the discussion board. It is your responsibility to know who the instructor and/or teaching assistant(s) are for your class. Do not choose the option of sending your email within the class to "all" instructors, as there are staff members from our administrative team listed that cannot assist you with course questions (and are only there for administrative purposes).

Technical Issues with Course Website.

Course technologies are in place to meet online learning accessibility standards for sight and hearing-impaired learners. Likewise, course materials are developed in accordance with accessibility standards.

Canvas Accessibility webpage: https://www.instructure.com/products/canvas/accessibility

E-learning technical support: 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu

For technical assistance do not contact the UF HELP Desk. Please contact dess@ahc.ufl.edu, for IT support for this course.

Course description

New Approach Methodologies are a rapidly evolving set of computational and cell- based model systems developed as an alternative to traditional animal-based testing which are transforming the fields of toxicology, hazard and exposure assessment, and regulation. Introduces students to the diversity of NAMs, the history of their development, the moral and scientific rationale for their application, their emerging use in regulatory toxicology, and ongoing discussions about their strengths and limitations.

Prerequisites

Permission of the program.

Course Objectives

Upon successful completion of the course, students will be able to:

1. Synthesize and contrast the moral, scientific, and regulatory imperatives which underlie the use of NAMs in toxicology.
2. Summarize and illustrate current and potential application scenarios for NAMs in different toxicology contexts.
3. Compare the strengths and limitations of animal-based testing and NAMs based testing in hazard identification and risk assessment.
4. Identify the key current knowledge, technical and application gaps in the application of NAMs in risk assessment in a regulatory context.
5. Evaluate novel NAMs based on key criteria identified during the course for their reliability, reproducibility, and their regulatory utility.
6. Conceptually design or refine a NAM to address a current gap in risk assessment capabilities.

Weekly Schedule of Topics

Module 1: Introduction to alternative methods/ Assignment #1 / Quiz #1
Lecture 1: Historical overview of the development of current toxicity testing approaches for both humans and ecosystems.
Lecture 2: Variability and reproducibility in *in vivo* systems, prediction of human/ecosystem health.
Discussion: What drove the development of animal testing for regulatory assessments?

Module 2: Rationale and impetus for development of alternative methods / Assignment #2 / Quiz #2
Lecture 1: Ethical and regulatory imperatives for development of alternative methods. 3Rs movement, the two NRC reports, REACH, EPA directive, EPA work plan, TSCA update, current use in industry.
Lecture 2: Overview of major classes of alternative methods. Cell based assays, 2D, 3D cultures, multi-cellular culture, organs on a chip, non-vertebrate animals, computational methods
Discussion: How do the ethical and regulatory imperatives intersect in the rationale for NAMs?

Module 3: Introduction to two-dimensional cell culture-based testing systems/ Assignment #3 / Quiz #3
Lecture 1: Cell types, endpoints, assays, metabolism, immortalized vs primary cells, HepaRG, cell and tissue specific tests
Lecture 2: Cell models for ecotoxicology.
Discussion: What are the advantages and limitations of 2D cell culture as toxicity models?

Module 4: High throughput toxicity testing with cell-based systems / Assignment #4 / Quiz #4
Lecture 1: Introduction to ToxCast (now called CompTox), Tox21 – Assays, metabolism, purity, cytotoxicity, AC_{50} values.

Lecture 2: Application of ToxCast/CompTox,Tox 21 data analysis by different regulatory bodies, ExpoCast.
Discussion: What are the major issues that have been raised about the use of ToxCast/CompTox data in a regulatory context?

Module 5: 3D cell-based culture systems / Assignment #5 / Quiz #5
Lecture 1: Spheroids, organoids
Lecture 2: 3D framework hepatic cells, Air-liquid interface models.
Discussion: What capabilities do 3D based systems bring to toxicity testing as compared to 2D testing and what remain as limitations in their uses?

Module 6: Primary cell, iPSC derived cells / Assignment #6 / Quiz #6
Lecture 1: Primary cell-based assays, immortalized primary cells.
Lecture 2: iPSC derived cell types, different cell and tissue types of interest.
Discussion: How do primary cells or tissue samples differ from iPSC derived differentiated cells and what is the implication for toxicity assessment?

Module 7: Multi-cell type culture systems, organ on a chip / Assignment #7 / Quiz #7
Lecture 1: Macro co-culture approaches, tissue specific models, liver, brain, lung.
Lecture 2: Organ-on-a-chip systems.
Discussion: How do the multitude of organ on chip methods complicate their use in a regulatory context?

Module 8: Addressing Genetic Variability /Assignment #8 / Quiz #8
Lecture 1: Review role of genetic variability in toxicity, safety factors, current approaches, mixed population S9 extracts.
Lecture 2: Approaches to assess in vitro models, population models, genetically diverse cell models.
Discussion: What are public health implications of using model systems lacking diversity in toxicity testing?

Module 9: Case Studies of successful alternative methods/ Assignment #11 / Quiz #11
Lecture 1: Skin models, skin sensitization
Lecture 2: Eye toxicity, inhalation and MucilAir™
Discussion: What do the NAMs recently proposed or adopted for regulatory acceptance share in common and what barriers exist to the adoption of other NAMs in regulatory practice.

Module 10: Non-animal models / Assignment #10 / Quiz #10
Lecture 1: Bacteria, yeast, *C. elegans.*
Lecture 2: *D. magna*, Zebrafish embryo bio-assays
Discussion: What is an animal in regulatory toxicology, and what are the implications and issues with regard to their uses?

Module 11: Introduction to Computational Approaches/ Assignment #11 / Quiz #11
Lecture 1: Currently utilized approaches: read-across, QSARS, PBPK/D models, IVIVE
Lecture 2: Next steps, emerging computational approaches, ExpoCast
Discussion: What are the inherent limitations of computational approaches in toxicology and caveats with it adoption for regulatory decision making?

Module 12: Integrated Approaches/ Assignment #12/ Quiz #12
Lecture 1: Mode of action, pathway mapping.
Lecture 2: Adverse Outcome Pathways (AOPs)
Discussion: How are integrated approaches utilized in fit-for-purpose regulatory decision making?

Module 13: OMICS technologies in alternative models / Assignment #13/ Quiz #13
Lecture 1: Transcriptomics, S1500+ gene set, high throughput gene expression
Lecture 2: proteomics, lipidomics, other omic technologies.
Discussion: What are the issues in the interpretation of correlative genomic studies in risk assessment? What is the the difference between causality and correlation?

Module 14: Validation/Testing and Acceptance of Alternative methods/ Assignment #14 / Quiz #14
Lecture 1: Fit for purpose, context of use, biological plausibility.
Lecture 2: Evaluation frameworks (OECD GD211, GD34), international bodies (ICCVAM, ICATM, OECD),
Discussion: What are the major barriers currently in the utilization of NAMs in a regulatory context? How could these barriers be overcome?

Module 15: Outstanding issues in NAMs and the Future for NAMs in toxicity testing /Assignment #15/ Quiz #15.
Lecture 1: Will NAMs ever replace animal studies? Reproducibility and reliability issues in NAMs.
Lecture 2: Current unmet needs in NAMs, and how to design and evaluate a NAM for regulatory use.
Discussion: What will toxicity testing look like in 25 years?

Grading Scheme

Each module will include a quiz, an assignment, and discussion for a total of 15 of each type. Quizzes will comprise 45% of the total grade, 45% is assignments, and the remaining 10% is participation in the discussion.

Quiz Format: Each quiz will contain 3 short answer questions extracted from the lecture notes and assigned readings. Students will be required to provide short answer responses that focus on understanding of the lecture. The quizzes will be time limited to 30 minutes to ensure academic integrity. Each quiz will worth 3 pts for a total of 45 pts for 15 quizes. Each short answer response will receive full credit (1 pt), ½ credit (1/2 pt), or no credit for a score between 0-3 pts.

Assignment Format: There will be one assignment for each module with a total of 15 assignments. Each assignment will consist of primary data or material which the student has not previously encountered in the class. The format of the assignment will be a short critical evaluation of the provided data set which highlights key technical and interpretation issues such as underlying assumptions, application of appropriate analysis tools, and technical application caveats or limitations. Additionally, the student will be asked to propose additional work that could be used to address an issue identified by the student. The weekly assignments will be due the week after the material is covered in lecture/discussion on Friday (e.g. for Module 1, it would be due the following week). The assignments will be submitted online. Example module assignments include:

Module 4: High throughput toxicity testing with cell-based systems.
An example of EPA high throughput testing data (e.g.ToxCast) data set will be provided to the students. Students will need to explain the assay systems being used, explain quality control issues to be addressed, consider appropriate analysis approaches, and interpret the data with appropriate caveats and limitations. The student will be asked to provide one additional experiment that could address one of the issues identified by the student.

Rubric:
Exceeds standard – student correctly identifies the assays, identifies two QC issues, suggests appropriate analysis, and provides reasoned interpretation. Suggests a reasonable experimental approach to address limitations (considerable flexibility will be allowed here and practicality will not be primary consideration)
Meets standard – student omits no more than one of the key issues.
Nearly meets standard – student omits two of the key issues.
Does not meet standard – student does not identify any key issue.

Module 6: Primary cell, iPSC derived cells
The student will be provided with toxicity data obtained from primary cells and iPSC cells of the same cell type. The student will be asked to compare the results and discuss the reproducibility, reliability, and concordance of the results and comment on the experimental issues that could be contributing to the observed similarities and differences. The student will will be asked to suggest one experimental approach to address limitations identified in their analysis.

Rubric:
Exceeds standard – student correctly describes the reproducibility of each studies, and provides an explanation of reliability as related to toxicity studies, and identifies at least two issue that could explain similarities/differences in the results. Suggests a reasonable experimental approach to address limitations (considerable flexibility will be allowed here and practicality will not be primary consideration)

Meets standard – student omits no more than one of the components indicated above, eg. Does not address reproducibility but addresss other metrics.
Nearly meets standard – student omits no more than two of the components indicated above.
Does not meet standard – student omits more than two of the components above.

Discussion Format: Students will be provided with a short reading assignment about a controversial issue in NAM use, application, or interpretation which is relevant to the week's topic. Each student will be required to participate in the online discussion on the topic where they provide their individual perspective/thoughts on the topic, provide rationale and support for their viewpoints while also providing feedback to two other students. The goal is to encourage the students to engage with the topic rather than come to any particular consensus on the best approach. Each student will be responsible for participating in at least 10 of the 15 module topics. Participation for a module topic is defined as submission of at least a one paragraph to the discussion board, and a response (at least three sentences) to at least two other participants submissions. The quality of the submissions and responses will not be evaluated. Ten points will be given for each module participation up to a maximum of 100 pts which will comprise the 10% participation score.

Grading Scale

Percent	Grade	Grade Points
90.0 - 100.0	A	4.00
87.0 – 89.9	A-	3.67
84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 77.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:
UF Graduate Catalog
Grades and Grading Policies

Attendance Policy, Class Expectations, and Make-Up Policy

Students are required to visit the course website **daily** for important updates and messages. Students are expected to complete each module in a timely fashion, complete each assignment every week, and participate in the Discussions board. Missed quizzes or exams will be discussed with the instructor. Excused absences must be consistent with university policies in the Graduate Catalog and require appropriate documentation. Additional information can be found in Attendance Policies.

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

University Honesty Policy

Academic Honesty: All students are expected to abide by the student honor code. To review the student honor code read the information on standards of ethical Conduct at: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/
Students are also not allowed to use any apps or websites such as Quizlet, Course Hero or

anything similar to share their assignments and the course notes or to obtain assignment responses. Use of such sites without the specific permission of instructors or program directors are a violation of UF Copyright rules and UF student honor policies. Such violations could result in the student's expulsion from the University of Florida. Anyone found to be using these sites or soliciting chat groups on the internet to answer assignment questions will be assigned an automatic zero grade with no option to redo the assignment.

Plagiarism: Plagiarism includes any attempt to take credit for another person's work. This includes quoting directly from a book or web site, without crediting the source. Sources should always be referenced or a link to the website added and, where direct quotes have been used, quotation marks must be placed around the quoted material. However, we expect more than simply cutting and pasting in a graduate level course. Students are expected to review, evaluate and comment on material they research, rather than simply copying relevant material. Your work will be graded accordingly.

Use of online and recorded materials: Students are allowed to use online video or audio recordings of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or guest lecturer during a class session. Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Policy on Course Syllabi, UF, Academic Affairs, September 9th, 2022

Use of Chatbots and Artificial Intelligence (e.g. ChaptGPT): Please note that students are not permitted to submit work that has been written using chatbots. Every student in our program should have completed the academic integrity module:

"Submission of Academic Work Purchased or Obtained from an Outside Source. A Student must not submit as their own work any academic work in any form that the student purchased or otherwise obtained from an outside source, including but not limited to: academic materials in any form prepared by a commercial or individual vendor of academic materials; a collection of research papers, tests, or academic materials maintained by a Student Organization or other entity or person, or any other sources of academic work."

Students who submit work, be it an entire paper or even parts of an assignment using Artificial Intelligence technology to formulate their answers will be considered as an honor code violation. If an instructor determines that you have violated the honor code, an official student conduct report may be filed.

Assignments: Each module includes an assignment that has a due date posted on the Course Calendar. While we understand that our students have other work and personal commitments, we expect every effort to be made to meet these deadlines. If for some reason, because of circumstances beyond your control, you are unable to meet an assignment deadline, students should message the professor **PRIOR TO THE DATE THE ASSIGNMENT IS DUE** and explain the situation in advance. If no prior communication occurred, the instructor may deduct points for late submission at their discretion or as stated in the course overview and/or communicated via the discussion board. Being consistently late in submitting assignments disrupts the discussion of topics on the bulletin board and will therefore result in loss of marks for that assignment up to a full letter grade. If you message us we will work with you around the deadline.

If you have outstanding assignments as we near the end of the semester, we will send you a follow up email as a reminder and to determine your plans for completion. If you do not respond to us before the final day of classes, you will be assigned a grade based on the completed assignments.

Incomplete grades: Under special circumstances, if a student is unable to finish a course before the end of the semester, we may be able to assign an incomplete grade. An incomplete grade is a non-punitive grade assigned at the discretion of the course instructor. In this course an incomplete grade may be assigned if a third or more of the course assignments have been completed and if the student has remained in communication with TA's and instructors throughout the course, or has made an effort to request an incomplete grade. If an incomplete grade is assigned, outstanding assignments and quizzes must be completed by the end of the next semester. If the assignments are not completed in this time, you will be assigned a grade based on the completed assignments.

Drop Dates: Consult the UF Calendar of Critical Dates at UF Calendar of Critical Dates . Students must inform us that they are withdrawing from a course to ensure appropriate tuition reimbursement. Deleting yourself from the course roster does not officially withdraw you from a course.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Campus Resources:

Health and Wellness

U Matter, We Care:
If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints

Course|Modify for request 18547

Info

Request: GMS 6022 Principles of Neurophysiology - Credit hour reduction
Description of request: The Neuroscience faculty has discovered that there is significant content overlap between GMS 6701 and GMS 6022. We intend to alter GMS 6701 removing all content taught in GMS 6022 thereby reducing the required time in GMS 6701. We will also remove any overlapped content from GMS 6022 and we will begin offering GMS 6022 and GMS 6701 concurrently.
Submitter: Ikiah Young ilyoung@ufl.edu
Created: 5/8/2023 2:43:23 PM
Form version: 1

Responses

Current Prefix
Enter the current three letter code (e.g., POS, ATR, ENC).

Response:
GMS

Course Level
Select the current one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Number
Enter the current three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles.

Response:
022

Lab Code
Enter the current lab code. This code indicates whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Course Title
*Enter the current title of the course as it appears in the Academic Catalog.There is a 100 character limit for course titles. *

Response:
Principles of Neurophysiology

Effective Term
Select the requested term that the course change(s) will first be implemented. Selecting "Earliest" will allow the change to be effective in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's expectations. Courses cannot be changed retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires at least 6 weeks after approval of the course change at UF.

Response:
Fall

Effective Year
Select the requested year that the course change will first be implemented. See preceding item for further information.

Response:
2023

Requested Action
Indicate whether the change is for termination of the course or any other change. If the latter is selected, all of the following items must be completed for any requested change.

Response:
Other (selecting this option opens additional form fields below)

Change Course Prefix?

Response:
No

Change Course Level?

Response:
No

Change Course Number?

Response:
No

Change Lab Code?

Response:
No

Change Course Title?

Response:
No

Change Transcript Title?
*If changing the course title a new transcript title is also required. *

Response:
No

Change Credit Hours?

Response:
Yes

Current Credit Hours

Response:
3

Proposed Credit Hours

Response:
2

Change Variable Credit?

Response:
No

Change S/U Only?

Response:
No

Change Contact Type?

Response:
No

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Change Rotating Topic Designation?

Response:
No

Change Repeatable Credit?

Response:
No

Multiple Offerings in a Single Semester
Can this course be taken by a student multiple times in the same semester?

Response:
No

Change Course Description?

Response:
No

Change Course Objectives

Response:
No

Change Prerequisites?

Response:
No

Change Co-requisites?

Response:
No

Rationale
Please explain the rationale for the requested change.

Response:
The Neuroscience faculty has discovered that there is significant content overlap between GMS 6701 and GMS 6022. We intend to alter GMS 6701 removing all content taught in GMS 6022 thereby reducing the required time in GMS 6701. We will also remove any overlapped content from GMS 6022 and we will begin offering GMS 6022 and GMS 6701 concurrently.

UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE SYLLABUS
NEUROSCIENCE
GMS 6022, Principles of Neurophysiology (2 credits)
Semester: Spring 2023
Delivery Format: in-person
Monday 1:00 – 3:00 PM

Instructor Name: Drew Maurer
Room Number: LG-101A DeWesse Auditorium
Phone Number: Maurer 352-273-5092
Email Address: drewmaurer@ufl.edu
Office Hours: Dr. Maurer- upon request
Preferred Course Communications: Email

Prerequisites: Must be a graduate student in Neuroscience or related discipline (e.g., Psychology, Pharmacology, Clinical Health Psychology, Biomedical Engineering, Pharmacodynamics)

Purpose and Outcome: *This semester course provides the fundamental principles of electrical properties and synaptic signaling in excitable cells. Students will gain an understanding of the physiological properties of the nervous system, including how ions and ion channels govern the membrane potential and excitability, and how signaling properties arise at the single neuron level to manifest as larger networks that support behavior. Following the function of individual cells, the manner in which they are connected will be covered, including synaptic signaling between neurons. We will cover the molecular make-up of synapses, and different kinds of synapses, the quantal theory of transmission, and neuromodulation. Course material will also cover the different types of synaptic plasticity mechanisms that make synaptic strength use-dependent. The course includes a review of model systems and neural circuits in integrative neurophysiology, as well as the relation of neural circuits to behavior and cognitive processes.*

Course Overview: This course will focus on the physiology of the nervous system from the microscopic scale to the interaction of the brain with the body and environment.

Relation to Program Outcomes: This course fulfills the requirements for Academic Credits for graduate students in the Neuroscience program.

Course Objectives and/or Goals:
By the end of each semester, students will be able to:

- Describe the basic cellular physiology of neurons
- Describe different types of cellular communication
- Identify the different types of ionic current and describe how that gives rise to resting membrane potential and action potential propagation.

- Describe the role of interneurons in shaping neural dynamics
- Identify circuit level physiology in normal and disease states. Detail different molecular tools to study neuronal function

Instructional Methods: Instructors and students will attend in-person.

Description of Course Content:

Topical Outline/Course Schedule

Week	Day	Lecture	Lecturer
1	8/28/23	**Intro and course overview** Nernst and GHK equation, current-voltage relationships *Kandel Ch 6; Hille Ch 1*	Maurer Alviña
		Passive properties: capacitance, time and space constants *Kandel Ch 6*	Alviña
2	9/4/23	*NO CLASS – Labor Day Holiday*	
3	9/11/23	Action potential and Synaptic Transmission Intro *Kandel Ch 7; Hille Ch 2*	Burke
		Touch and Proprioception, Receptors, Signal Transduction	Mandel/Ch 21, 23 in Kandel, Nadeau Ch 7 cycle 1
4	9/18/23	Central synapses *Kandel Ch 8, 10,12; Hille Ch 6*	Moehle
		Metaneuron 3 Lab: synaptic currents	Moehle
	9/22/23	**Exam 1 Due Friday by 11:59 PM**	
5	9/25/23	Dynamics of small circuits Readings: Sharp, A. A., Skinner, F. K., & Marder, E. (1996). Mechanisms of oscillation in dynamic clamp constructed two-cell half-center circuits. Journal of Neurophysiology, 76(2), 867–883. Bargmann, Cornelia I., and Eve Marder. "From the connectome to brain function." Nature methods 10.6 (2013): 483. Gutierrez, Gabrielle J., Timothy O'Leary, and Eve Marder. "Multiple mechanisms switch an electrically coupled, synaptically inhibited neuron between competing rhythmic oscillators." Neuron 77.5 (2013): 845-858.	Maurer
6	10/2/23	*Cells of the Nervous System, Blood Brain Barrier, Choroid Plexus, and CSF*	*Mandel Ch 1,2,4, and Appendix D in Kandel, Nadeau Ch-1 cycle 3, Ch-3 cycles 1-4*
		Glymphatics and Introduction to Neuroimmunology	Mandel

7	10/9/23	"Hormones, gene transcription and physiology"	Casadesus
		The Neurophysiology of breathing	Fuller
8	10/16/23	Interneurons and plasticity in spinal cord	Dale
		Interneurons and the importance of network balance in the brain Berg, Rune W., Alex Willumsen, and Henrik Lindén. "When networks walk a fine line: balance of excitation and inhibition in spinal motor circuits." Current Opinion in Physiology 8 (2019): 76-83.	Maurer
	10/20/23	**Exam 2 DUE Friday by 11:59 PM**	
9	10/23/23	The Visual System #1 (ZOOM)	Semple-Rowland/ Ch 26, 27, 28 in Kandel
		The Visual System #2 (ZOOM)	Semple-Rowland/ Nadeau Ch 9
10	10/30/23	Rhythms of the Brain 1 Buzsáki, György, Costas A. Anastassiou, and Christof Koch. "The origin of extracellular fields and currents—EEG, ECoG, LFP and spikes." Nature reviews neuroscience 13.6 (2012): 407-420.	Mauer
		Rhythms of the Brain 2 *Kandel ch. 46*	Maurer
11	11/6/23	Human Neurophysiology	Keil
		LTP/LTD and neuroplasticity	Burke
12	11/13/23	Memory 1 Schwindel, C. Daniela, and Bruce L. McNaughton. "Hippocampal–cortical interactions and the dynamics of memory trace reactivation." Progress in brain research. Vol. 193. Elsevier, 2011. 163-177. Josselyn, Sheena A., Stefan Köhler, and Paul W. Frankland. "Heroes of the engram." Journal of Neuroscience 37.18 (2017): 4647-4657.	Burke
		Memory 2	Maurer
	11/17/23	EXAM 3 DUE Friday by 11:59PM	
13	11/20/23	Physiology of Neurodegeneration	Chakrabarty
		Manipulating neural circuits: Optogenetics, DREADDS and other in vivo methods for assessing and manipulating neural circuits in vivo	Setlow
14	11/27/23	Physiology of the Prefrontal Cortex	Padilla-Coreano

15	12/4/23	Computational Neuroscience: Pros and Cons	Maurer
		Imaging of Cognition	Burke
16		**EXAM 4 or Paper DUE 12/6/23 at 11:59PM**	

Course Materials and Technology:

From Neuron to Brain, Fifth Edition by John G. Nicholls(Author), A. Robert Martin(Author), Paul A. Fuchs

Principles of Neuroscience, Fifth Edition, by Kandel, Schwartz, Jessel, Siegelbaum and Hudspeth

Supplemental reading: Ion Channels of Excitable Membranes, Third Edition, by Bertil Hille as well as readings assigned special readings corresponding to specific lectures.

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- UF eLearning

Academic Requirements and Grading:

Assignments:

There will be 4 exams based on lecture content and will involve multiple choice, short answer and essay questions. Grades will be determined from performance on 4 exams and class participation.

Once per semester, students will be permitted to replace their lowest exam score by writing a single "Journal Club" on a paper of their choice that published within the last 12 months. This will follow the Journal of Neuroscience format (http://www.jneurosci.org/site/misc/ifa_features.xhtml) and should have three components: a short overview of the background of the reviewed paper, a critical data-based review of the key findings, and a brief summary of the significance relative to the concept in the current course. The Journal Club should focus on the most important results (it is not necessary to discuss each figure), and a successful paper will offer a critical evaluation the results in the context of other work. The length should be between 1200 and 1500 words.

Grading:

Requirement	Percent Final Grade
Participation	10%

Exam 1	22.5%
Exam 2	22.5%
Exam 3	22.5%
Exam 4	22.5%

Point system used (i.e., how do course points translate into letter grades).

Percentage Earned	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	E

Exam Policy: There are four exams in this course. Exams will be administered at the date and time specified in the syllabus.

Policy Related to Make up Exams or Other Work: You are expected to notify the course directors of any anticipated absences. You should make every effort to take the exams on the

days they are scheduled. If extenuating circumstances prevent you from taking a scheduled exam, and you have an excused absence, you will need to schedule an appointment to meet with the course directors to identify an alternative exam date.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (http://helpdesk.ufl.edu/) correspondence. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance: You are expected to attend each lecture and actively participate in the problem sets. Participation is incorporated into the problem set grading.

Expectations Regarding Course Behavior: We expected all students to be in attendance for every lecture and participate in class discussions. Students should meet with the instructors as soon as possible regarding University-excused absences so that accommodations can be made on a case by case basis.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

Communication Guidelines:
Please see the NETIQUETTE GUIDE FOR ONLINE COURSES: http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

Academic Integrity:
Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

"**We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity**."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/
http://gradschool.ufl.edu/students/introduction.html
Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process:
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/ . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Accommodations for Students with Disabilities:
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/ . It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health:
Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: http://www.counseling.ufl.edu.
  On line and in person assistance is available.

- You Matter We Care website: http://www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.

- The Student Health Care Center at UF Health is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at UF Health offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: https://shcc.ufl.edu/

- UF Health Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,Gainesville, FL 32698, ufhealth.org/emergency-room-trauma-center.

- University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).

- Crisis intervention is always available 24/7 from:

  Alachua County Crisis Center:
  (352) 264-6789
  http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services career.ufl.edu/.

Library Support: cms.uflib.ufl.edu/ ask various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall 352-392-2010 or to make an appointment 352 392-6420. General study skills and tutoring. teachingcenter.ufl.edu/

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. writing.ufl.edu/writing-studio/

Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

On-Line Students Complaints: distance.ufl.edu/student-complaint-process

Course|Modify for request 18545

Info

Request: GMS 6701 Functional and Comparative Neuroanatomy for Professionals - credit hour reduction
Description of request: The Neuroscience faculty has discovered that there is significant content overlap between GMS 6701 and GMS 6022. We intend to alter GMS 6701 removing all content taught in GMS 6022 thereby reducing the required time in GMS 6701. We will also remove any overlapped content from GMS 6022 and we will begin offering GMS 6022 and GMS 6701 concurrently.
Submitter: Ronald Mandel rmandel@ufl.edu
Created: 8/24/2023 12:02:58 PM
Form version: 3

Responses

Current Prefix
Enter the current three letter code (e.g., POS, ATR, ENC).

Response:
GMS

Course Level
Select the current one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Number
Enter the current three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles.

Response:
701

Lab Code
Enter the current lab code. This code indicates whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Course Title
*Enter the current title of the course as it appears in the Academic Catalog.There is a 100 character limit for course titles. *

Response:
Functional and Comparative Neuroanatomy for Professionals

Effective Term
Select the requested term that the course change(s) will first be implemented. Selecting "Earliest" will allow the change to be effective in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's expectations. Courses cannot be changed retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires at least 6 weeks after approval of the course change at UF.

Response:
Fall

Effective Year
Select the requested year that the course change will first be implemented. See preceding item for further information.

Response:
2023

Requested Action
Indicate whether the change is for termination of the course or any other change. If the latter is selected, all of the following items must be completed for any requested change.

Response:
Other (selecting this option opens additional form fields below)

Change Course Prefix?

Response:
No

Change Course Level?

Response:
No

Change Course Number?

Response:
No

Change Lab Code?

Response:
No

Change Course Title?

Response:
No

Change Transcript Title?
*If changing the course title a new transcript title is also required. *

Response:
No

Change Credit Hours?

Response:
Yes

Current Credit Hours

Response:
5

Proposed Credit Hours

Response:
3

Change Variable Credit?

Response:
No

Change S/U Only?

Response:
No

Change Contact Type?

Response:
No

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Change Rotating Topic Designation?

Response:
No

Change Repeatable Credit?

Response:
No

Multiple Offerings in a Single Semester
Can this course be taken by a student multiple times in the same semester?

Response:
No

Change Course Description?

Response:
No

Change Course Objectives

Response:
No

Change Prerequisites?

Response:
No

Change Co-requisites?

Response:
No

Rationale
Please explain the rationale for the requested change.

Response:
The Neuroscience faculty has discovered that there is significant content overlap between GMS 6701 and GMS 6022. We intend to alter GMS 6701 removing all content taught in GMS 6022 thereby reducing the required time in GMS 6701. We will also remove any overlapped content from GMS 6022 and we will begin offering GMS 6022 and GMS 6701 concurrently.

UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE SYLLABUS

NEUROSCIENCE

GMS 6701 Advanced Functional and Comparative Neuroanatomy for Professionals (3 credits)

Semester: Fall 2023
Delivery Format: In person
Wednesday (1:00-3:00PM; CG-67/68 or L1-101) and Friday (1:00 – 2:00 PM, L1-101)

Course Director Names: Drs. Ron Mandel and Sara N. Burke
Graduate Teaching Assistants: TBD
Room Number: LECTURES will be in MBI L1-101; Early LAB sessions will be in Communicore CG-67, later labs will be in L1-101
Email Addresses: (Mandel) rmandel@ufl.edu; (Burke) burkes@ufl.edu
Office Hours: Dr. Burke will be available on Tues/Wed from *12pm to 1pm.* Additional meetings can be scheduled with Drs. Burke, Mandel, or the graduate teaching assistants.
Canvas site: TBD
Preferred Course Communications: Canvas or email
Prerequisites: Must be a graduate student in Neuroscience or related discipline (e.g., Psychology, Clinical Health Psychology, Biomedical Engineering, Pharmacodynamics)

Purpose and Outcome: Neuroanatomy is the science of how the nervous system is built and how it functions. It is the basis for understanding nearly all aspects of modern medicine and should be a cornerstone for all discovery science and clinical research in the neurosciences. The purpose of this course is to provide graduate students with foundational knowledge of the basic anatomy, organization, and cells that make up the central nervous system in humans, primates, medium-sized quadrupeds, and rodents.

Course Overview: Neuroanatomy is a complex but rewarding field of study. The earliest documented interest in this subject appears in an Egyptian script written in the 17th century BCE that was likely based on observations made a thousand years earlier. During the 3rd century BCE, several Greek scientists, philosophers, and physicians made significant contributions to our understanding of brain structure through dissection, a practice that was outlawed for several hundred years until the Renaissance period. The driving force behind studies of the human brain continues to be our desire to explain changes in human behavior and cognition resulting from injury and disease.

In this course, you will learn the structure and function of all major systems in the central nervous system (brain and spinal cord). Our studies of the anatomy and function of the

brain will be complemented by clinical cases and observations in humans. At the end of this course, you will have both a working knowledge of human and rodent neuroanatomy, and you will also be able to use this knowledge to explain how disruption of brain structure leads to changes in human behavior and cognition.

Relation to Program Outcomes:

After successful completion of this course, you will have a knowledge base of brain structure and function that will facilitate your graduate research and overall neuroscience training. It is also a goal that successful completion of this course will position students to serve as teaching assistants and/or instructors for a neuroanatomy course in the future.

Course Objectives and/or Goals:

Specific learning objectives will be provided at the start of each lecture and anatomy introduction. Broadly, upon successful completion of this course students will be able to:

1) Identify and name all structures provided on the neuroanatomy “hit list.”
2) Describe the neuroanatomy and function of all primary sensory and motor systems.
3) Describe the basic organization of higher-order cortical function.
4) Be able to predict precise lesion locations in the nervous when presented with detailed functional deficits (neurological symptoms).
5) Be able to define differences and similarities between functional neuroanatomy of animals and humans.
6) Understand how disruption of neural systems translates to changes in human behavior and cognition.

Instructional Methods:

The course will consist of a lecture and neuroanatomy component and exams for each component will be given approximately each month. All lectures will be recorded and made available on the CANVAS site. We ask that students please view instructors as a resource that want to share their love of neuroanatomy with you and help you be a successful researcher in the neurosciences.

It is the instructors' expectation that students taking this course will work on mastering the material presented throughout each week. It is not possible to do well in this course if the time you spend on the course is limited to a few hours on weekends. All exams in this course will utilize LockDown browser technology so it is important that you become familiar with this technology. You will have a chance to take "practice" quizzes using this technology before taking the first course exams.

Description of Course Content:

Below is a detailed outline of the course content. This course includes a lecture and an accompanying neuroanatomy section for 5 hours of instruction each week that run concurrently. The lectures and the neuroanatomy content are designed to complement each other.

Topical Outline/Course Schedule

Week	Day/Date	Topic	Instructor/Readings
1	**WED Aug 23 (LAB 1)**	**Course Introduction and Directional terms, Embryology, Basic Gross, and Sectional Neuroanatomy (CG-67)**	Mandel & Burke/Haines Ch 2, Nadeau Ch 1 cycles 1-2 4-10
	FRI Aug 25	Basic Development of the CNS	Sarkisian/*Ch 52, 53 in Kandel*
2	**WED Aug 30 (LAB 2)**	**Gross brain white matter, Diencephalon, Basal Ganglia, Basal forebrain in humans and rodents (CG-67)**	Mandel/*Haines Ch 4, Nadeau Ch 1 cycles 6-9*
	FRI Sept 1	Overview of Somatosensation	Mandel/*Ch 22 in Kandel,* *Nadeau Ch 7 cycles 2,3,5*
3	**WED Sept 6 (LAB 3)**	**External cranial nerves, Spinal cord and sections of the brainstem, somatosensory tracts in humans and rodents (CG-67)**	Mandel*/Haines Ch 5, 6/ Haines pp188-197, 206-220*
	FRI Sept 8	Pain	Caudle/*Ch 24 in Kandel, Nadeau Ch 7 cycles 6-7*
4	**WED Sept 13 (LAB 4)** Lecture	**Motor Tracts Anatomy in humans and rodents** Motor pathways and spinal cord	Mandel/*Haines pp 241-261* Mandel/*Ch 37 in Kandel, Nadeau Ch 6*
	FRI Sept 15	Autonomic nervous system	Mandel, supplemented with recording from 2021/ CH 47 in Kandel, Nadeau Ch 11
	OPTIONAL FRI Sept 15 2-3PM	**Orange and Blue Anatomy Review**	Mandel/Burke
	MON SEP 18	**EXAM 1 (Lecture and Lab) DUE 9AM**	
5	**WED Sept 20 (LAB 5)**	**Basal Ganglia, and Cerebellum Anatomy in humans and rodents**	Mandel/Burke
	FRI Sept 22	Basal Ganglia Function	Mandel/*Kandel Ch 43*

6	WED Sept 27	Cerebellum Function	Mandel/*Kandel Ch 42*
	FRI Sept 29	Cognitive control of movement	Burke/*Ch 19, 37, 38 in Kandel*
7	**WED Oct 4 (LAB 6)** Lecture	**Cerebrovasculature in humans and rodents** Arteries and Veins of CNS: aneurysms and territories	Mandel/*Appendix C in Kandel* Mandel/*Nadeau Ch 2*
	FRI Oct 6 **NO CLASS**	Homecoming Holiday	
8	**WED Oct 11 (LAB 7)**	**Cranial Nerves External review and Internal Anatomy in humans and rodents (CG-67)**	Burke/*Haines Ch 3, Nadeau Ch 8*
	FRI Oct 13	Stroke	Candelario-Jalil
9	WED Oct 18	Cranial Nerves I-VI Cranial Nerves VII-XII	Burke/*Ch 45 in Kandel*
	FRI Oct 20	Chemical Senses: Smell and Taste	Munger/*Ch 32 in Kandel*
	OPTIONAL FRI Oct 20 2-3PM	**Orange and Blue Anatomy Review**	Mandel/Burke
	MON OCT 23	**EXAM 2 (Lecture and Lab) DUE 9AM**	
10	**WED Oct 25 (LAB 8)**	**Thalamus, Auditory, vestibular, and visual anatomy in humans and rodents (CG-67)**	Burke/*Haines pp 154-173, 262-270*
	FRI Oct 27	Horizontal Eye Movements and Pupillary Reflexes	Mandel/*Ch 39 in Kandel, Nadeau Ch 8 cycles 3-4, Ch 9 cycle 5*
11	WED Nov 1	The Thalamus – **PAPER TOPIC DUE** The Vestibular system	Burke Burke/*Ch 40 in Kandel*
	FRI Nov 3	The Auditory system	Someya/*Ch 30, 31 in Kandel*
12	**WED Nov 8 (LAB 9)**	**Hypothalamus and limbic system in humans and rodents (CG-67)**	Burke/*Haines pp 280-293,* *Nadeau Ch 12 cycle 4*
	FRI Nov 10 **NO CLASS**	Veteran's Day Observed	
13	WED Nov 15	Cortical organization of higher-level perception Learning and memory	Burke/*Ch 17, 18, 28, 29 in Kandel* Burke/*Ch 65, 67 in Kandel, Nadeau Ch 12 cycle 5*
	FRI Nov 17	Language	Mandel/ *Ch 60 in Kandel, Nadeau Ch 12 cycle 3*
14	Nov 22-24 **NO CLASS**	**THANKSGIVING BREAK**	Review and work on paper
15	WED Nov 29	**PAPER DUE** Rewards systems and the neurobiology of addiction	Setlow/*CH 49 in Kandel* Burke

		Executive Function and the PFC	
	FRI Dec 1	Neuropathology	Giasson/Ch44 in Kandel
16	WED Dec 6	**NAME THE LESION (NTL)**	Mandel/Burke
	OPTIONAL **FRI Dec 8 1-3PM**	**Anatomy and NTL Review**	Mandel/Burke
	MON Dec 11	**FINAL DUE by 9AM**	

Class Guest Lecturers:

Name	Email	Department
Eduardo Candelario-Jalil	ecandelario@ufl.edu	Neuroscience
Robert Caudle	rcaudle@dental.ufl.edu	Dentistry
Benoit Giasson	bgiasson@ufl.edu	Neuroscience
Rick Johnson	rdjohnso@ufl.edu	Veterinary Medicine
Steve Munger	steven.munger@ufl.edu	Neuroscience
Barry Setlow	setlow@ufll.edu	Psychiatry
Matt Sarkisian	msarkisian@ufl.edu	Neuroscience
Shinichi Someya	someya@ufl.edu	Aging

Course Materials and Technology:

LECTURE (*required*): Hudspeth, A. J., Jessell, T. M., Kandel, E. R., Schwartz, J. H., & Siegelbaum, S. A. (Eds.). (2013). *Principles of Neural Science.* McGraw-Hill, Health Professions Division.
(Available on Kindle)
Neuroanatomy (*required*): Haines, D. E. 10th Edition (9th is also acceptable) (2019). *Neuroanatomy: an Atlas of Structures, Sections, and Systems* (Vol. 153, No. 2004). Lippincott Williams & Wilkins.

SUPPLEMENTAL READING

We will also be providing you with *Medical Neuroscience* as a downloadable PDF through the CANVAS site. Authors: Stephen E. Nadeau, Tanya S. Ferguson, Edward Valentstein, Charles J. Vierk, Jeffrey C. Petruska, Wolfgang J. Streit and Louis A. Ritz, Saunders 2004, ISBN 0-7216-0249-5 (out of print).

Atlas of the Human Brain in Section. By Melville Roberts and Joseph Hanaway, Virginia. Will be made available as a pdf through the Canvas site.

Neuroanatomy Through Clinical Cases, 3nd Edition. Author: Hal Blumenfeld. Sinauer Associates, Inc. 2010. ISBN-13: 978-1605359625 We recommend you buy the hardcopy from a friend or a vendor like Amazon because we do not like the eBook

interface. However, if you are interested in the eBook the link is: https://global.oup.com/academic/product/neuroanatomy-through-clinical-cases-9781605359625?cc=us&lang=en&

TECHNOLOGY:
CANVAS Site:
Laptop or desktop computer equipped with microphone and video camera. A microphone and video camera will be used for video conferencing with instructors.

- There is a Canvas app that can be used to access the course using your portable devices. The app is not as good as laptop or desktop computers.
- There are VoiceThread apps that are available for iOS and Android devices that can be used to view and post comments on VTs. While these portable devices are excellent for watching lectures and asking questions, we strongly recommend that you use laptop or desktop computers when working on this course.
- **Installation of LockDown Browser** – Installation instructions will be made available prior to practice practical exams.
- A high-speed internet connection such as DSL or cable. **When using LockDown Browser your computer should be directly connected to the internet rather than accessing using WiFi.** A broadband internet connection is strongly recommended. Slower connections should still be able to access e-Learning, but will take longer to load and will be unreliable when taking tests.
- It is highly recommended that you work with Canvas and VT using either the **Firefox or Chrome Browsers**.
- In order to use Canvas and LockDown Browser (for tests so it's kind of important) you should have a late model computer running Windows 10 or 11 with 8-16 Mb RAM or a MacIntosh running macOS Monterey with at least 12 Mb of RAM. If these computer requirements are beyond your capabilities to obtain please contact your instructors immediately.
- For specific questions about browser compatibilities and general questions about e-learning at UF please go to https://wiki.helpdesk.ufl.edu/FAQs/E-Learning.

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- UF eLearning

Academic Requirements and Grading

Exams and Assignments: There will be a total of 6 exams that will make up your grade. Three exams will cover the lecture content, 3 exams will be on the neuroanatomy content and will involve identifying structures in gross anatomy or sections. The third

Lab exam will also have questions related to name lesion exercises covered in the second half of the semester. There is also an optional paper assignment that is to be written in the format of a *Journal of Neuroscience* Journal Club paper: https://www.jneurosci.org/content/jneurosci-journal-club. Your paper grade will replace your lowest exam grade.

Student Paper: Each student will write one "Journal Club" on a paper of their choice that related to the course content. This will follow the *Journal of Neuroscience* format for Journal Club Papers (https://www.jneurosci.org/content/jneurosci-journal-club) and should have three components: a short overview of the background of the reviewed paper, a critical data-based review of the key findings, and a brief summary of the significance of the paper. The Journal Club should focus on the most important results (it is not necessary to discuss each figure), and a successful paper will offer a critical evaluation the results in the context of other work. ***Please get approval of our paper topic from an instructor by Oct. 31, 2022****. This is required in order to get credit for the paper.* The length should be between 1200 and 1500 words. Papers should be submitted through the Canvas site by **5:00 pm on Nov 22, 2022**.

Note regarding respect for diverse ideas: At times your instructors may make provocative statements related to course content to spark discussion. We welcome and have respect for dissenting opinions. Moreover, we feel that hearing and sharing diverse ideas is an essential component of the active learning process. Please discuss with course faculty if you ever feel that your ideas are not being heard or respected. All lectures will be recorded and available on CANVAS if discussions ever need to be reviewed.

Grading:

Requirement	Due date	Points or % of final grade (% must sum to 100%)
Exam 1	9/18	30%
Exam 2	10/23	30%
Exam 3	12/11	40%
Paper (your paper grade will replace your lowest exam grade)	11/29	

Grades:

Percentage Earned	Letter Grade
93-100	A
90-92.9	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9	C+
73-76.9	C
70-72.9	C-
67-69.9	D+
63-66.9	D
60-62.9	D-
Below 60	E

Please be aware that a C- is not an acceptable grade for graduate students. The GPA for graduate students must be 3.0 based on 5000 level courses and above to graduate. A grade of C counts toward a graduate degree only if based on credits in courses numbered 5000 or higher that have been earned with a B+ or higher.

More information on UF grading policy may be found at:
http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades

Exam Policy:

Exams will be administered online at the date and time specified on the syllabus. Exam grades will be adjusted by setting the highest score to 100%. Questions that are faulty or that all students get incorrect will be dropped. Final grades are curved to reflect that class average of a B+.

You are expected to notify the course directors of any anticipated absences. You should make every effort to take the exams on the days they are scheduled. If extenuating circumstances prevent you from taking a scheduled exam, you will need to schedule an

appointment to discuss this with the course directors to identify an alternative exam date.

Policy Related to Make-up Exams or Other Work

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (http://helpdesk.ufl.edu/) correspondence. You MUST e-mail the instructors within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance). Additional information can be found here: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Student Expectations, Roles, and Opportunities for Input:

Expectations Regarding Course Behavior:

We expect all students to be in attendance for every lecture and Neuroanatomy, as well as to participate in class discussions.

Communication Guidelines:

Please see the NETIQUETTE GUIDE FOR ONLINE COURSES: http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

Academic Integrity:

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

"**We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity**."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:
https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/
http://gradschool.ufl.edu/students/introduction.html
Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/ . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Support Services:

Accommodations for Students with Disabilities:
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/ . It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health:

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information:

http://www.counseling.ufl.edu.
On line and in person assistance is available.

- You Matter We Care website: http://www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at UF Health is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at UF Health offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: https://shcc.ufl.edu/
- UF Health Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,Gainesville, FL 32698, ufhealth.org/emergency-room-trauma-center.
- University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).
- Crisis intervention is always available 24/7 from:
  Alachua County Crisis Center:
  (352) 264-6789
  http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services career.ufl.edu/.

Library Support: cms.uflib.ufl.edu/ ask various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall 352-392-2010 or to make an appointment 352 392-6420. General study skills and tutoring. teachingcenter.ufl.edu/

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. writing.ufl.edu/writing-studio/

Student Complaints On-Campus: sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

On-Line Students Complaints: distance.ufl.edu/student-complaint-process

Course|Modify for request 18654

Info

Request: PHA 6279 - Change to Capstone and other modifications
Description of request: This request is to update PHA6279 from a 1-cr hour seminar course to a 3-cr hour capstone course that is the culminating experience for the MS program. There is also an update to the course title, credit hours, description, objectives, & prerequisites.
Submitter: Emely McKitrick emely.mckitrick@ufl.edu
Created: 6/28/2023 10:29:25 AM
Form version: 3

Responses

Current Prefix
Enter the current three letter code (e.g., POS, ATR, ENC).

Response:
PHA

Course Level
Select the current one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).
* *

Response:
6

Rationale for 5000 level course request
Please provide the rationale for submitting this course as a 5000 level course in the space provided below. (i.e. target student audience, program, school). 5000 level courses require joint review and approval by the University Curriculum Committee and Graduate Curriculum Committee or Professional Curriculum Committee.

Response:
This is a request to revise PHA6279, which is a course offered to students in the College of Pharmacy.

Lab Code
Enter the current lab code. This code indicates whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Number
Enter the current three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles.

Response:
279

Course Title
*Enter the current title of the course as it appears in the Academic Catalog.There is a 100 character limit for course titles. *

Response:
Pharmaceutical Outcomes and Policy Seminar

Effective Term
Select the requested term that the course change(s) will first be implemented. Selecting "Earliest" will allow the change to be effective in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's expectations. Courses cannot be changed retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires at least 6 weeks after approval of the course change at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course change will first be implemented. See preceding item for further information.

Response:
Earliest Available

Requested Action
Indicate whether the change is for termination of the course or any other change. If the latter is selected, all of the following items must be completed for any requested change.

Response:
Other (selecting this option opens additional form fields below)

Change Course Prefix?

Response:
No

Change Course Level?

Response:
No

Change Course Number?

Response:

No

Change Lab Code?

Response:
No

Change Course Title?

Response:
Yes

Current Course Title
(100 character limit)

Response:
Pharmaceutical Outcomes and Policy Seminar

Proposed Course Title
(100 character limit)

Response:
Pharmaceutical Outcomes and Policy Capstone

Change Transcript Title?
*If changing the course title a new transcript title is also required. *

Response:
Yes

Current Transcript Title

Response:
Pha Outcome and Plcy Sm

Proposed Transcript Title (30 char. max)

Response:
Pharm Out/Policy Capstone

Change Credit Hours?

Response:
Yes

Current Credit Hours

Response:
1

Proposed Credit Hours

Response:
3

Change Variable Credit?

Response:
No

Change S/U Only?

Response:
No

Change Contact Type?

Response:
No

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Change Rotating Topic Designation?

Response:
No

Change Repeatable Credit?

Response:
No

Multiple Offerings in a Single Semester
Can this course be taken by a student multiple times in the same semester?

Response:
No

Change Course Description?

Response:
Yes

Current Course Description

Response:
Development, reasons for, and possible approaches to resolving a contemporary issue in health outcomes or policy. Students analyze particular aspects of the issue and present results for class discussion.

Proposed Course Description (500 characters max)

Response:
This graduate capstone course is the culminating learning experience in the Master of Pharmacy, Pharmaceutical Outcomes and Policy program. Students will recall information and synthesize what they have learned in prerequisite courses to apply pharmaceutical research to project the impact of pharmaceutical policies on outcomes. At the end of this course, students will be able to prepare an oral and written evidence-based pharmaceutical policy brief that policymakers can use.

Change Course Objectives

Response:
Yes

Current Course Objectives

Response:
Upon successful completion of this course, the student will be able to:
1. Explain the relationship between reimbursement and prescription drug prices in the US.
2. Analyze contributors to high prescription drug prices.
3. Describe the consequences of policies intended to reduce prescription drug prices.

Proposed Course Objectives

Response:
1. Recall foundational facts about drug discovery, development, approval, marketing, regulation, and use in the United States.
2. Recognize best practices in evidence-based writing in pharmaceutical outcomes and policy.
3. Identify policy alternatives for a pharmaceutical issue.
4. Apply evidence to project the consequences of policies on outcomes.
5. Prepare a written pharmaceutical policy brief.
6. Deliver a pharmaceutical policy brief presentation.

Change Prerequisites?

Response:
Yes

Current Prerequisites

Response:
None

Proposed Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.
(There is a limit of 246 characters)
* *

Response:
PHA6186 POP Foundations I: Drug Discovery, Development and Approval
PHA 6187: POP Foundations II: Drug Marketing, Use, and Policy
PHA 6741: Writing for POP

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example:

<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Change Co-requisites?

Response:
No

Rationale
Please explain the rationale for the requested change.

Response:
We have submitted a request for a curriculum change for our MS in Pharmacy, Concentration in Pharmaceutical Outcomes and Policy. A key component of the curriculum change is to provide students with a better culminating experience - which will be a Capstone course. Previously, students were required to take the 1-cr hour PHA6279 Pharm Outcomes and Policy Seminar and then take a Comprehensive Exam that was not for academic credit. We are requesting to combine/replace those two elements (Seminar + Comprehensive Exam) with a 3-cr hour Pharm Outcomes and Policy CAPSTONE course.

To be clear, we have separately submitted a request for the curriculum change in the approval system. We included the modification to the culminating experience detailed above in that request. THIS request is exclusively for the new capstone course. Since we are sunsetting the Seminar course, and the Capstone course is similar to Seminar just much more comprehensive - we thought it was logical to request to revise the old Seminar course to the new Capstone course, rather than to request a new course.

I will also note for the reviewers that the Seminar course was offered annually and covered a current topic in pharmaceutical outcomes and policy. The 2023 offering covered drug pricing. As such, the course description and objectives in the attached syllabus are specific to drug pricing.

Online POP Course Syllabus

PHA6279:
Pharmaceutical Outcomes and Policy (POP) Capstone
3 credit hours

Class Format
This is an 8-week asynchronous, online course. There are no synchronous class meetings.

Course Website
Course materials are accessed via the course Canvas site. If you have trouble accessing the course Canvas site, please contact Distance Education Support Services at DESS@ahc.ufl.edu.

Instructors
Laura E. Happe, PharmD, MPH
Associate Clinical Professor
Director, Online Graduate Program, Pharmaceutical Outcomes and Policy
lhappe@ufl.edu
Phone/Text: 727.488.2700
Office Hours: By appointment
Office Location: Click here to schedule a Zoom meeting

Randy C. Hatton, BPharm, PharmD, FCCP
Clinical Professor
hatton@ufl.edu
Phone/Text: 352.262.0736
Office Hours: By appointment
Office Location: via Zoom or phone

Course Description
This graduate capstone course is the culminating learning experience in the Master of Pharmacy, Pharmaceutical Outcomes and Policy program. Students will recall information and synthesize what they have learned in prerequisite courses to apply pharmaceutical research to project the impact of pharmaceutical policies on outcomes. At the end of this course, students will be able to prepare an oral and written evidence-based pharmaceutical policy brief that policymakers can use.

Online POP Course Syllabus

Course Objectives

Upon successful completion of this course, the student will be able to:

1. Recall foundational facts about drug discovery, development, approval, marketing, regulation, and use in the United States.
2. Recognize best practices in evidence-based writing in pharmaceutical outcomes and policy.
3. Identify policy alternatives for a pharmaceutical issue.
4. Apply evidence to project the consequences of policies on outcomes.
5. Prepare a written pharmaceutical policy brief.
6. Deliver a pharmaceutical policy brief presentation.

Relationship to Program-level Student Learning Outcomes

This course pertains to the following program-level student learning outcomes:

1. Identify, interpret, and utilize core knowledge across the spectrum of Pharmaceutical Sciences.
2. Analyze and apply material from foundation courses in the curriculum, interpret data, and synthesize a response to a complex problem or case.
3. Deliver a presentation of a discipline-specific topic related to Pharmaceutical Sciences for internal academic review. These presentations will be clear in providing information at an appropriate level to the audience, complete in providing the necessary and relevant background from the literature and will utilize appropriate audiovisual aids that are clearly constructed.

Required Textbooks and/or Software

There are no required texts. Reading assignments from current websites, journal articles, and news articles are provided in Canvas.

Recommended Materials

None

Course Pre-Requisites

PHA6186 POP Foundations I: Drug Discovery, Development and Approval
PHA 6187: POP Foundations II: Drug Marketing, Use, and Policy
PHA 6741: Writing for POP

Structure and Organization

This course is organized into weekly activities in UF's e-learning system, Canvas. Each week's assigned work (eg, readings, recorded lectures, assignments) are clearly detailed in Canvas. Students can progress through the course materials at their own pace, provided they meet the posted due dates. Assignments can be turned

in before the due date; however, it is possible that instructor feedback will not be returned until the posted date. Further, students should plan to complete the peer reviews within the dates shown below.

Course Schedule

Week	Activities	Assignments	Important Dates
			• 5/12: First day of term
1	• Watch course Welcome lecture • Watch Pharmaceutical Policy Brief lecture • Read "How to write a health policy brief" • Read "UNC policy brief handout" • Search for policy proposals • Prepare a prospectus	• Syllabus quiz • Prospectus	• 5/19: Assignments due
2	• Review Foundations I • Review Foundations II	• None	• 5/26: Prospectus will be returned by an instructor
3	• Search for primary literature • Review Writing for POP • Prepare an annotated bibliography	• Annotated bibliography	• 6/2: Assignment due
4	• Read AMA's Inclusive Language • Study for the exam	• Exam (open 6/3 to 7/14)	• 6/3: Exam opens • 6/9: Annotated bibliography will be returned by an instructor
5	• Begin writing first draft of brief	• None	• 6/16: Last day of week, no assignments due
6	• Finish writing first draft of brief • Exchange drafts with peer • Complete peer review	• Peer review	• 6/23: Assignment due
7	• Revise brief based on peer-review comments • Watch Presentation video	• None	• 6/30: Last day of week, no assignments due
8	• Finalize brief • Work on presentation	• Final paper	• 7/7: Assignment due
9	• Finalize presentation	• Presentation	• 7/14: Assignment due • 7/14: Exam closes
			• 7/26: An instructor will provide feedback on final paper and presentation; Grades finalized

Evaluation Methods

Exam (20%):

Students will take a comprehensive exam over content from the three prerequisite courses. The exam will be administered via Canvas and will be primarily composed of multiple-choice questions. The exam is closed-book, timed, and will be proctored via an online proctoring service.

Pharmaceutical Policy Brief:

Students will write a Pharmaceutical Policy Brief summarizing the evidence on alternative policies to address a pharmaceutical issue for a policymaker audience. The instructors will assign an issue, such as "The price of insulin is too high," or "Step therapy policies delay necessary treatment to patients." The purpose of the brief is to explain the likely impact of the policy alternatives on outcomes to help the policymaker to determine what they should do. In this assignment, students are not to take a position on one policy over another – this is not an argumentative assignment.

Students will complete the brief in a series of scaffolding assessments:

(5%) Prospectus: Students will identify two policy alternatives and explain how the policies could address the issue. Students should identify proposed or existing policies from the public domain rather than constructing a new policy themselves. An instructor will approve the policies or work with the student to identify suitable policies.

(10%) Annotated bibliography: Students will identify evidence to project the impact of the alternative policy options. The students will identify primary literature reports on economic, humanistic, and/or clinical outcomes. An instructor will approve the bibliography and/or recommend improving it.

(10%) Draft and peer-review: Students will draft their brief, exchange drafts with a peer, and provide constructive feedback to their peer. The instructors will not provide comments on the draft.

(30%) Final paper: Students will submit the final paper. An instructor will use the rubric provided to evaluate the paper and provide feedback.

Presentation (15%)

Students will prepare and submit a short, recorded presentation of their brief. This assignment is designed as an adaptation to the "Three Minute Thesis." An instructor will use the rubric provided to evaluate the presentation and provide feedback.

Online POP Course Syllabus

Grading Policy

This is a Pass or Fail course. Students must meet all the following criteria to pass the course:

1. Earn 72.500% or higher on the Exam.
2. Submit all the following assignments by the due dates: (1) prospectus, (2) annotated bibliography, (3) peer review, (4) final paper, and (5) presentation.
3. Earn a passing grade on the final paper per the rubric.
4. Earn a passing grade on the presentation per the rubric.

Grading Rubric

Students must earn a satisfactory evaluation on 4 out of the 5 categories to earn a passing grade.

Online POP Course Syllabus

Categories	Satisfactory	Unsatisfactory
Content	Papers/Presentations exhibit evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing the literature, and providing an adequate discussion with a sophisticated understanding of the data and results of the study.	Papers/Presentations either include a research question that is unclear, a poorly formed methodology or results, or provide only minimal or inadequate discussion of the data. Papers may also lack sufficient or appropriate attention to the literature.
Organization and coherence	Papers/Presentations exhibit logical structure for academic research, including a clear research question or hypothesis, a coherent literature review, appropriate expression of methodology and discussion of results. Sections and paragraphs illustrate coherence, including the use of topic sentences and logical transitions.	Papers/Presentations lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack transitions and coherence to guide the reader.
Argument and support	Papers/Presentations present ideas persuasively and confidently. Claims are strongly supported with evidence. Methods are valid. Conclusions are well reasoned from the data presented.	Generalizations are not supported by the citation of literature, data is interpreted illogically, and conclusions may not be reasonably drawn from the evidence
Style	Papers/Presentations use a writing style with word choice appropriate to the context, genre, and discipline. Sentences display complexity and logical structure.	Papers/Presentations rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly.
Mechanics	Papers/Presentations will feature correct or error-free presentation of ideas. If any spelling, punctuation, or grammatical errors remain, they are unobtrusive and do not obscure the paper's argument.	Papers/Presentations contain mechanical or grammatical errors that impede the reader's understanding or severely undermine the writer's credibility.

Online POP Course Syllabus

Attendance Policy for Online POP

Students are expected to formally drop or withdraw from the course if they no longer wish to participate. See the program's Academic Calendar for applicable deadlines. In some cases, the University may automatically drop students for inactivity and/or for failure to pay tuition. It is crucial for students to communicate with the DESS (DESS@ahc.ufl.edu) about their status in the course, and about any tuition deferments or other special conditions related to their tuition payment. Any student who remains enrolled in the course after the drop/add deadline is considered tuition-liable, unless exempted by University petition. The official UF Attendance Policy can be found here.

Make-up Policy

Each assignment is posted with a clear due date. **Assignments that are not submitted by the due date will be given a zero.** An instructor will consider extenuating circumstances on a case-by-case basis – if of the student contacts them before the due date. No other makeup assignments are offered. Contact an instructor regarding any concerns.

Course Technology Support

Your instructor is not able to handle technological issues or answer questions related to computer issues.

- **Assistance accessing course Canvas page:** Contact Distance Education Support Services at DESS@ahc.ufl.edu
- **IT Support:** Contact UF Computing Help Desk at 352-392-HELP (4357) or helpdesk@ufl.edu or submit an online request form. If a technical problem causes you to miss an assignment, you must report the problem to the Help Desk and then email your instructor your Help Desk ticket number to an instructor to receive an extension.

Students Requiring Academic Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course technologies meet online learning accessibility standards for sight and hearing-impaired learners. Likewise, course materials are developed in accordance with accessibility standards. Course documents and webpages are formatted for screen-reader accessibility with the use of headings, styles, or alternative text tagging for images. Accessibility design tools in Microsoft Office products and in Canvas are used to evaluate

and update accessibility issues detected in the instructional materials. Synchronous class sessions in Zoom are recorded. These recordings are posted to the course site to accommodate students unable to attend.

- Canvas Accessibility
- Zoom Accessibility

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/.

University Honesty Policy and Academic Integrity

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Regarding academic integrity, students in the program are strongly encouraged to be mindful of what constitutes plagiarism. Written assignments that contain the research or other original published work of someone else must be properly quoted, cited, paraphrased, or referenced appropriately. A software (TurnItIn) that is integrated with Canvas Assignments may be utilized to help students determine if a written submission meets the criteria for a properly referenced research paper. Please ask for help, utilize resource materials and take advantage of opportunities like creating a draft of your paper to test, ensuring you have addressed any errors prior to the final submission.

Please watch these short videos about this topic:

- Understanding and Avoiding Plagiarism: Types of Plagiarism
- Avoiding Plagiarism

Software Use and Course Technology

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the

individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Educational technology in the program is primarily the Canvas Learning Management System (LMS) and Zoom web conferencing software. These tools firmly support learning objectives and course goals. Writing with communication tools, reading articles from digital collections, and viewing video presentations in high-quality, accessible formats are essential to facilitate meaningful learning experiences. These experiences expand knowledge and influence professional work habits and skills such as information-gathering techniques and evidence-based practice. Synchronous class sessions in Zoom provide learners with opportunities to gain confidence and practice how they interact and collaborate in online meetings.

- Canvas Student Guide
- Zoom Resources

A minimum number of other technical skills are required for success in the online courses. These include accessing course webpages to read text and listen to recorded videos, using word processing tools (MS Word, PowerPoint), downloading/uploading content, submitting online assignments and using a variety of communication tools (Canvas Inbox, Discussions, Zoom Conferences).

Course Communication

Canvas (Inbox tool) will be used as the primary communication tool between instructors and students. Check daily for new announcements or notifications about course updates. UF email will also be used occasionally for mass communication to the class, so please check your email at least once a day as well. All emails sent out to the entire class will also be posted as an Announcement on Canvas. The instructors will generally respond to student messages within 48 hours.

General questions about course content (e.g., assignments or lectures) or policies should be posted to the course discussion board. We expect students to help each other track down answers as best as possible. Read through all the other posts in the discussion board first before posting to make sure your question has not been addressed/answered already. Please include a clear subject title for your topics to make it clear what your post pertains to. Instructors will generally respond to questions posted on the course discussion board within 48 hours.

Emotions can easily be misinterpreted on a discussion board/emails, so make sure your message is clear before sending it since there are no physical gestures or voice inflections that accompany posts/emails. Any posts/emails deemed inappropriate by the faculty will be dealt with on a case-by-case basis with either the faculty directly or they will be sent on to the Associate Dean for Professional Affairs.

For personal issues/questions, please email your instructor. Be sure to include in your subject line the course listing and then a quick subject (e.g., PHAXXXX – Your Name -). This will allow instructors to quickly identify

emails related to the course amongst the many emails that are received each day. Emails not correctly addressed may get lost in the shuffle and unintentionally deleted or ignored so be sure to follow the guidelines exactly.

Student Privacy

There are federal laws protecting your privacy in terms of grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

- Zoom Software Privacy Statement
- Canvas (by Instructure) Privacy Policies

Security

Online activity in Canvas requires an active UF GatorLink account to log in, as well as enrollment in courses. The Zoom Conference meetings for weekly classes are accessed within Canvas. These meetings have a pass code applied as an additional security setting. Students in the class do not need to enter the passcode, however anyone not enrolled in the course cannot join the meeting without it.

Library Resources

For remote access to UF library resources such as e-journals or other digital collections, use the UF VPN or proxy server to connect.

Additional University Resources

- **U Matter, We Care:** If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
- **Counseling and Wellness Center**
- **Sexual Assault Recovery Services (SARS):** Student Health Care Center, 392-1161.
- **University Police Department** at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu
- **E-learning technical support**: 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
- **Teaching Center**: Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
- **Writing Studio**: 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
- **Student Complaints**

Online POP Course Syllabus

PHA6279: PHARMACEUTICAL OUTCOMES AND POLICY SEMINAR

Prescription Drug Prices:
Unreasonable but Affordable

1 credit hour

Class Meeting Times

Saturday, March 4

- 12:00 pm registration
- 1:00 pm start
- 6:00-8:00 pm dinner

Sunday, March 5

- 7:30 am check in
- 8:00 am start
- 2:00 pm end

Class Meeting Location

HPNP Building, 1225 Center Drive, University of Florida, Gainesville, FL

Instructor

Laura E. Happe, PharmD, MPH, Associate Clinical Professor
Director, Online Graduate Program, Pharmaceutical Outcomes and Policy
lhappe@ufl.edu | Mobile: 727.488.2700
Office Hours: By appointment | Office Location: via Zoom or phone

Course Description

Consider this: although 8 in 10 adults say the cost of prescription drugs is unreasonable, only 3 in 10 say they are difficult to afford (KFF 2021). This paradox results from complex system of drug pricing and reimbursement in the US, which often shields people from the true cost of the medications they take. This is one of several incentives that make bringing the price of prescription drugs down so difficult. The 29th Pharmaceutical Outcomes and Policy Seminar will examine the business, economic, and ethical aspects of prescription drug pricing in the context of the complex reimbursement system. Experts will present new policies included in the Inflation Reduction Act and proposed policy solutions, including value-based drug prices and patent reforms. Student and faculty will deliberate the intended and unintended consequences of these policies on patient costs, access, disparity, and innovation - and whether any of these efforts will actually result in lower drug prices.

Online POP Course Syllabus

Course Objectives

Upon successful completion of this course, the student will be able to:

1. Explain the relationship between reimbursement and prescription drug prices in the US.
2. Analyze contributors to high prescription drug prices.
3. Describe the consequences of policies intended to reduce prescription drug prices.

Relationship to Program Outcomes

This course pertains to the following program outcomes:

1. Identify, interpret, and utilize core knowledge across the spectrum of Pharmaceutical Sciences.
2. Analyze and apply material from foundation courses in the curriculum, interpret data, and synthesize a response to a complex problem or case.

Required Textbook

Drugs, Money, and Secret Handshakes by Robin Feldman
111 pages of reading
ISBN-10: 1108482457
ISBN-13: 978-1108482455

Recommended Materials

None

Course Pre-Requisites

None

Structure and Organization

This course is an in-person seminar at the University of Florida campus in Gainesville. Students will conduct pre-seminar assignments to prepare to participate in the seminar, as well as a post seminar assignment to demonstrate their learning. The seminar will host a series of nationally recognized speakers as well as interactive practical learning sessions.

Course Schedule

The live seminar will be held March 4-5, 2023. A detailed agenda will be posted to Canvas by February 1.

Online POP Course Syllabus

Evaluation Methods and Grading Policy

This is a Pass or Fail course. **Students who achieve ≤80% will fail the course.** Students that miss two items from the table below, will fail the course.

	Description	**Due date**	**10% will be deducted from the overall course grade for each of the following reasons:**
Pre-seminar quiz	Multiple choice Open-book Two attempts – only the highest score is recorded.	March 4, 11 am EST	Failure to complete quiz by posted due date **or** Score of ≤60% on quiz
Seminar attendance	Attendance at all synchronous sessions	March 4 and March 5	Missing more than 20 minutes of any session (cumulative for each session infraction)
Discussion board posts	Two posts – one must be original and one may be either original or in response to a classmate's post Course Introduction does not count	March 4, 11 am EST	Failure to complete discussion board by posted due date **or** Inadequate posts (can lose up to 10% for **EACH** post)
Post-seminar assignment	Written assignment	March 9, 5 pm EST	Failure to complete by posted due date **or** Inadequate response

Online POP Course Syllabus

Attendance Policy for this Course

Students are expected to attend the entire seminar in person. Being late, leaving early, or missing sessions may result in failure of the course, as noted in the Evaluation Methods and Grading Policy section above.

Attendance Policy for Online POP

Students are expected to formally drop or withdraw from the course if they no longer wish to participate. See the program's Academic Calendar for applicable deadlines. In some cases, the University may automatically drop students for inactivity and/or for failure to pay tuition. It is crucial for students to communicate with the DESS (DESS@ahc.ufl.edu) about their status in the course, and about any tuition deferments or other special conditions related to their tuition payment. Any student who remains enrolled in the course after the drop/add deadline is considered tuition-liable, unless exempted by University petition.

Make-up Policy:

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- Canvas Accessibility
- Zoom Accessibility

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Online POP Course Syllabus

Software Use and Course Technology

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Course Communication

Canvas (Inbox tool) will be used as the primary communication tool between the instructor and students. Check daily for new announcements or notifications about course updates. UF email will also be used occasionally for mass communication to the class, so please check your email at least once a day as well. All emails sent out to the entire class will also be posted as an Announcement on Canvas. The instructor will generally respond to student messages within 48 hours.

General questions about course content (e.g., assignments or lectures) or policies should be posted to the course discussion board. We expect students to help each other track down answers as best as possible. Read through all the other posts in the discussion board first before posting to make sure your question has not been addressed/answered already. Please include a clear subject title for your topics to make it clear what your post pertains to. The instructor will generally respond to questions posted on the course discussion board within 48 hours.

Emotions can easily be misinterpreted on a discussion board/emails, so make sure your message is clear before sending it since there are no physical gestures or voice inflections that accompany posts/emails. Any

posts/emails deemed inappropriate by the faculty will be dealt with on a case-by-case basis with either the faculty directly or they will be sent on to the Associate Dean for Professional Affairs.

For personal issues/questions, please email your instructor. Be sure to include in your subject line the course listing and then a quick subject (e.g., PHAXXXX – Your Name -). This will allow instructors to quickly identify emails related to the course amongst the many emails that are received each day. Emails not correctly addressed may get lost in the shuffle and unintentionally deleted or ignored so be sure to follow the guidelines exactly.

Student Privacy

There are federal laws protecting your privacy in terms of grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Recordings of weekly class sessions in Zoom are created for the purpose of course teaching and learning, as well as for use as a resource for students who miss a class session.

The use of video (or web camera) feature in Zoom is not a requirement, but rather is voluntary for meeting participants. For both the audio and video features in Zoom, you will have the option to Start or Stop these functions.

Students who participate with their camera engaged or who utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

- Zoom Software Privacy Statement
- Canvas (by Instructure) Privacy Policies

Security

Online activity in Canvas requires an active UF GatorLink account to log in, as well as enrollment in courses. The Zoom Conference meetings for weekly classes are accessed within Canvas. These meetings have a pass code applied as an additional security setting. Students in the class do not need to enter the passcode, however anyone not enrolled in the course cannot join the meeting without it.

Library Resources

For remote access to UF library resources such as e-journals or other digital collections, use the UF VPN or proxy server to connect.

Additional University Resources

- **U Matter, We Care:** If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
- Counseling and Wellness Center
- **Sexual Assault Recovery Services (SARS):** Student Health Care Center, 392-1161.
- **University Police Department** at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu
- E-learning technical support: 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
- Teaching Center: Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
- Writing Studio: 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
- Student Complaints

Course|New for request 18717

Info

Request: New Course BCH 5206 Medical Metabolism
Description of request: This request is for a new course in medical metabolism. This course will be part of a 4 course online graduate certificate program offered by the Department of Biochemistry and Molecular Biology. It is one of four requests submitted:
(1) change the course number of GMS5905 to BCH5024
(2) new course in medical metabolism
(3) new journal club in translational medicine
(4) proposal for an online graduate certificate in medical biochemistry
Submitter: Deborah Smith dsmith43@ufl.edu
Created: 7/7/2023 12:20:45 PM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
BCH

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
* *

Response:
5

Undergraduate students in 5000 level courses
Is this course intended for an audience including undergraduate students?

Response:
No

Rationale for 5000 level course request
Please provide the rationale for submitting this course as a 5000 level course in the space provided below. (i.e. target student audience, program, school). 5000 level courses require joint review and approval by the University Curriculum Committee and Graduate Curriculum Committee or Professional Curriculum Committee.

Response:
The target audience for this course are students in the early stages of their graduate school curriculum. It reviews basic metabolic principles that students will use to analyze and discuss case study scenarios and primary literature within the metabolism field. A good understanding of undergraduate biochemistry is the only requirement for student success.

Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
206

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Introductory

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Medical Metabolism

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Medical Metabolism

Degree Type
Select the type of degree program for which this course is intended.

Response:

Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus, Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Spring

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2024

Rotating Topic
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select “Variable” for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Metabolism will be taught in the context of medical situations. Lecture material will cover basic concepts in carbohydrate, lipid, and nitrogen metabolism. Students will enhance their understanding of human metabolism by applying their knowledge to the analysis and discussion of clinical case studies and primary literature with the metabolism field.

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
One undergraduate biochemistry course or BCH 5024
Note: A proposal to change the number of GMS 5905 (Fundamentals of Biochemistry and Molecular Biology) to BCH 5024 has been submitted.

Completing Prerequisites:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course is being developed as part of a new online certificate program in the department called medical biochemistry (proposal for the certificate is also submitted). This course fits with the program by connecting the fundamental concepts in metabolism to human health. Additionally, students will further develop their critical thinking and problem-solving skills through the analysis of case studies and the evaluation of primary literature within the field. The course would also be appropriate for students in other programs where it would be helpful to strengthen their understanding of metabolism, but not necessary to go as in depth as is taught in BCH6206 - Advanced Metabolism.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
- Understand the fundamental principles of human metabolism
- Connect the basic principles of metabolism to the causes, symptoms, and treatments for metabolic disorders
- Develop skills in critical thinking, problem solving, and communication through the analysis and discussion of metabolic pathways and associated case study scenarios
- Learn to analyze and evaluate primary research articles in the metabolism field
- Recognize the impact of metabolism on human health

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Optional Readings will come from: Lehninger Principles of Biochemistry, 8th edition, by David L. Nelson and Michael M. Cox. New York: Macmillan Learning, 2021.

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Weeks 1-5 Carbohydrate Metabolism
- Week 1 – Introduction to case studies, overview of carbohydrate metabolism
- Week 2 – Case 1 – GP6 dehydrogenase complex
- Week 3 – Case 2 – Pyruvate Kinase
- Week 4 – Case 3 – Warburg Metabolism
- Week 5 – Case 4 – Glycogen Storage, Exam 1

Weeks 6 – 9 Lipid Metabolism
- Week 6 – Overview of lipid metabolism, Case 5 – Hypercholesterolemia
- Week 7 – Case 6 – ApoE and Astrocytes
- Week 8 - Case 7 – Hypertension, Case 8 – Tay Sachs disease
- Week 9 – Case 9 – Fabry’s Disease, Exam 2

Weeks 10 – 14 Nitrogen Metabolism
- Week 10 – Overview of nitrogen metabolism, Case 10 – PKU
- Week 11 – Case 11 – Asparagine Synthetase Deficiency
- Week 13 – Case 12 – Hartnup Disease, Case 13 – Vegetarian Diet

- Week 14 – Case 14 – Gout, Exam 3

Week 15 – Final Project

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
Homework will count for 10% of the grade and will consist of guided questions and discussion posts to assist students in organizing and understanding the lectures and case study presentations.
3 exams will count for 65% of the grade and will consist of multiple-choice questions developed from the homework assignments and discussions.
Final project will count for 25% of the grade. Students will research a metabolic disorder not previously covered and design a case study scenario similar to those discussed in class. Students will also provide the explanation of the metabolic pathways involved in the case and the connections between the pathways, the symptoms and the management of the disorder. A rubric for the final project can be found in the attached syllabus.

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Deborah Smith
Others to be determined

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations

Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation.

Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• *https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx*

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.*

* *

Response:
Yes

Course Syllabus
BCH5XXX (BCH5206 requested) - Medical Metabolism
Distance Learning Section

Instructor: Dr. Deborah Smith
Online Instructor
Email: dsmith43@ufl.edu
Office hours: Zoom by appointment using bookings
Biochemistry Office: Academic Research Building (ARB) R3-234
Biochemistry Phone: (352)294-8404

Course Objectives

- Understand the fundamental principles of human metabolism
- Connect the basic principles of metabolism to the causes, symptoms, and treatments for metabolic disorders
- Develop skills in critical thinking, problem solving, and communication through the analysis and discussion of metabolic pathways and associated case study scenarios
- Learn to analyze and evaluate primary research articles in the metabolism field
- Recognize the impact of metabolism on human health

Prerequisites: A working knowledge of basic biochemistry.

Recommended Textbook: Lehninger Principles of Biochemistry, any edition. This text is recommended to review the basic principles of metabolism. Exam questions will come from lecture material and provided supplemental resources.

Web Page: Course material is available on the Canvas E-Learning site: https://elearning.ufl.edu/. Access lecture videos and slides by clicking the respective exam module button on the course homepage. Lectures videos are the property of UF and cannot be downloaded. Weekly announcements can be found by clicking "Announcements." **Students are expected to keep up-to-date with all information communicated through the announcements.**

Course Design: Metabolism will be taught in the context of medical situations. Lectures material will cover basic concepts in carbohydrate, lipid, and nitrogen metabolism. Students will enhance their understanding of human metabolism by applying their knowledge to the analysis and discussion of clinical case studies and primary literature with the metabolism field. As a final project, students will create their own case study scenario.

Grading Policy: Students' final letter-grades will be based on performance on guided question homework assignments, three examinations, and a final project. Points are distributed as follows:

Assignment Type	Points	Percentage of Final Grade
Homework	75	10%
Exams	300	65%
Final Project	125	25%
Total	**500**	**100%**

Final grades will be calculated as a percentage of the total possible points earned. The grading scale for this course is based on the performance of the entire class on all assignments.

The default grading scale for the course is A ≥ 90, A- 87-89.9, B+ 84 – 86.9, B 80 – 83.9, B- 77 – 79.9, C= 74 – 76.9, C 70 – 73.9, C- 67 – 69.9, D+ 64 – 66.9, D 60 – 63.9, D- 57 – 59.9, E ≤ 56.9. The scale may be shifted downward based on course performance, but will never be shifted upwards. Updated grading scales will be provided after each exam.

Information on the UF graduate school grading policy is available at:
https://gradcatalog.ufl.edu/graduate/regulations/.

Honorlock: Exams will be administered using the Honorlock Chrome extension. Honorlock will provide a scientific calculator when an exam requires one. For all exams you must use Chrome web browser, a computer that is connected to the internet, and a webcam which can be turned to give a 360° view of your testing room if requested. You must be the only person in your testing room. Scratch paper is permitted, but you must show the front and back of the paper at the beginning of the exam. Ensure you have a stable internet connection. If your connection is dropped, the exam timer will not stop. *In case of technical issues during an exam, contact Honorlock support IMMEDIATELY! Use the chat feature within Honorlock or go to link below.*

Install Honorlock: http://www.honorlock.com/extension/install

Honorlock technical support: https://honorlock.com/support/

A practice Honorlock quiz is available all semester within the "Quizzes" section to ensure that students have the appropriate technology in place prior to the first exam.

Make-up exams: Make-up exams will be granted ONLY for emergencies. Students must provide adequate documentation of a need to miss an exam and receive approval by Dr. Smith. Vacations are not a valid reason to miss an exam. The make-up exams are specific to the missed exam, not cumulative.

Course Communications: Students are responsible for regularly checking announcements for important updates. Questions about course organization & operation, including grades, should be directed to Dr. Smith using the Canvas email system.

How to send a message on Canvas: https://community.canvaslms.com/t5/Student-Guide/How-do-I-send-a-message-to-a-user-in-a-course-in-the-Inbox-as-a/ta-p/502

Attendance Policy: As an online asynchronous course, there is no attendance policy. However, students are expected to keep up with the lectures schedule and complete all assignments on a schedule (sample schedule provided below). If a student cannot complete an assignment when scheduled, the student must contact the professor and make appropriate arrangements. Excused absences must be consistent with university policies in the Graduate Catalog and require appropriate documentation. Additional information can be found in Attendance Policies.

Students Requiring Accommodations: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

University Honesty Policy: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use: All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy*:* Students who participate in live online office hours or review sessions with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited. There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Campus Resources:

Health and Wellness

U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS): Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints

Course Schedule. Topical Outline

Weeks 1-5 Carbohydrate Metabolism

- Week 1 – Introduction to case studies, overview of carbohydrate metabolism
- Week 2 – Case 1 – GP6 dehydrogenase complex
- Week 3 – Case 2 – Pyruvate Kinase
- Week 4 – Case 3 – Warburg Metabolism
- Week 5 – Case 4 – Glycogen Storage, **Exam 1**

Weeks 6 – 9 Lipid Metabolism

- Week 6 – Overview of lipid metabolism, Case 5 – Hypercholesterolemia
- Week 7 – Case 6 – ApoE and Astrocytes
- Week 8 - Case 7 – Hypertension, Case 8 – Tay Sachs disease
- Week 9 – Case 9 – Fabry's Disease, **Exam 2**

Weeks 10 – 14 Nitrogen Metabolism

- Week 10 – Overview of nitrogen metabolism, Case 10 – PKU
- Week 11 – Case 11 – Asparagine Synthetase Deficiency
- Week 13 – Case 12 – Hartnup Disease, Case 13 – Vegetarian Diet
- Week 14 – Case 14 – Gout, **Exam 3**

Week 15 – Final Project

Case Study Project Rubric

Required Elements					**Score**
	Excellent	Good	Fair	Poor	
Case study characteristics (15)	Contains key elements necessary for understanding and diagnosing the patient. (12-15)	Contains most elements necessary for understanding and diagnosing the patient. (8-11)	Several important elements for understanding the case are missing. (5-8)	Minimal effort made to include key case elements. (0-5)	
Metabolic pathways (15)	Metabolic pathways associated with the case study are clearly described. (12-15)	Metabolic pathways associated with case are described, but some parts lack clarity. (8-11)	Metabolic pathways associated with case are present, but not clearly described. (5-8)	Appropriate metabolic pathways are not present (0-5)	
Connections to Disorder (30)	Clear connections between the pathway, the symptoms and the management of the disorder are described (24-30)	Connections are made between the pathway and the case, but some aspects are missing or not clear. (16-23)	Some connections are present, but not clearly describe. Some connections are absent. (10-15)	Connections between pathway and case are not appropriate or not present (0-10)	
References (5)	References are listed and cited within the text. (5)	References are listed but not cited within text. (4)	Not enough references were listed or cited. (2-3)	No references were listed or cited. (0-1)	
Mechanics (10)	Writing is clear and free of grammatical errors. (9-10)	Writing is clear with minimal (less than 5) grammatical errors. (6-8)	Writing is not clear or contains excessive grammatical errors (4-6)	No posting. (0-3)	
				Total	___/75

Course|New for request 18718

Info

Request: New Journal Club in Translational Medicine BCH 5930
Description of request: This request is for a new journal club. This course will be part of a 4 course online graduate certificate program offered by the Department of Biochemistry and Molecular Biology. It is one of four requests submitted:
(1) change the course number of GMS5905 to BCH5024
(2) new course in medical metabolism
(3) new journal club in translational medicine
(4) proposal for an online graduate certificate in medical biochemistry
Submitter: Deborah Smith dsmith43@ufl.edu
Created: 7/10/2023 4:27:15 PM
Form version: 2

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
BCH

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
* *

Response:
5

Undergraduate students in 5000 level courses
Is this course intended for an audience including undergraduate students?

Response:
No

Rationale for 5000 level course request
Please provide the rationale for submitting this course as a 5000 level course in the space provided below. (i.e. target student audience, program, school). 5000 level courses require joint review and approval by the University Curriculum Committee and Graduate Curriculum Committee or Professional Curriculum Committee.

Response:
This course is meant to assist students in developing skills in analyzing and evaluating primary literature. It is for students early in their graduate school curriculum and have minimal skills in this area.

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
930

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Introductory

- *1000 level = Introductory undergraduate*
- *2000 level = Introductory undergraduate*
- *3000 level = Intermediate undergraduate*
- *4000 level = Advanced undergraduate*
- *5000 level = Introductory graduate*
- *6000 level = Intermediate graduate*
- *7000 level = Advanced graduate*
- *4000/5000= Joint undergraduate/graduate*
- *4000/6000= Joint undergraduate/graduate*

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Journal Colloquy

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Journal Club

Degree Type
Select the type of degree program for which this course is intended.

Response:

Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Spring

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2024

Rotating Topic
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select “Variable” for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
1

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
1

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
A one (1) credit online course in which primary literature articles in translational medicine will be assigned for reading and discussion. Homework questions and discussion board post will be used to determine student mastery of the material.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
This course is only for students enrolled in the online certificate program. The proposal for a new online certificate is also being submitted at this time so we do not currently have the plan code.

Completing Prerequisites:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course is meant to assist students in the online certificate program in developing skills in analyzing and evaluating primary literature. It is for students early in their graduate school curriculum and have minimal skills in this area. The topic is translational medicine which fits with the focus of the certificate (Medical Biochemistry & Molecular Biology). Students can enroll in the journal club in the same semester as any of the courses that are part of the program.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
- Apply knowledge of the basic processes of cells to the reading and comprehension of review articles and primary literature.
- Critically evaluate the quality of the research presented.
- Determine if research conclusions regarding the experimental data are appropriate.
- Connect the discoveries from basic science research to the ability to improve human health.
- Discuss research papers in an informed, thoughtful and thorough manner.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
None

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Each week, a research paper, an appropriate review, and guided questions will be posted. Guided questions aim to enforce timely reading of the paper and provoke thoughtful analysis of the research present. These questions should be completed by each Wednesday. Students will not be able to post on the discussion board until the guided questions are submitted. Students will participate in a discussion of each paper through original discussion posts or by commenting on the posts of others.

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
Final grades will be calculated as a percentage of the total possible points earned as follows:
- Homework 50%. Homework will be grades as points per correct questions. Total points will count as 50% of the overall grade.
- Discussion posts 50%. Students are required to participate in a discussion of the research paper each week. Discussion posts will be graded on participation and on the quality of the posts. A sample rubric for discussion post grades can be found at the end of the attached syllabus.

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Deborah Smith

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at <a href="https://gatorevals.aa.ufl.edu/public-

results/">https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

BCH5XXX – Journal Club – Translational Medicine Syllabus
Requested as BCH5930
Distance Learning Section

Instructor: Dr. Deborah Smith
Online Instructor
Email: dsmith43@ufl.edu
Office hours: Zoom by appointment using bookings
Biochemistry Office: Academic Research Building (ARB) R3-234
Biochemistry Phone: (352)294-8404

Course Description: A one (1) credit online course in which primary literature articles in translational medicine will be assigned for reading and discussion. Homework questions and discussion board post will be used to determine student mastery of the material.

Course Objectives

- Apply knowledge of the basic processes of cells to the reading and comprehension of review articles and primary literature.
- Critically evaluate the quality of the research presented.
- Determine if research conclusions regarding the experimental data are appropriate.
- Connect the discoveries from basic science research to the ability to improve human health.
- Discuss research papers in an informed, thoughtful and thorough manner.

Prerequisites or Corequisite: GMS5905: Introduction to Biochemistry & Molecular Biology

Materials and Supplies: None. Students will be provided with primary literature and review articles.

Web Page: Course material is available on the Canvas E-Learning site: https://elearning.ufl.edu/. Access research articles, lecture videos and slides by clicking the respective exam module button on the course homepage. Lectures videos are the property of UF and cannot be downloaded. Weekly announcements can be found by clicking "Announcements." **Students are expected to keep up-to-date with all information communicated through the announcements.**

Course Design: The journal club topic is translational medicine. The papers presented will follow the progress of several basic science discoveries that were successfully carried through to treatments that improve the quality of human health. Each week, a research paper, an appropriate review, and guided questions will be posted. Guided questions aim to enforce timely reading of the paper and provoke thoughtful analysis of the research present. These questions should be completed by each Wednesday. Students will not be able to post on the discussion board until the guided questions are submitted. Students will participate in a discussion of each paper through original discussion posts or by commenting on the posts of others.

Grades:

Final grades will be calculated as a percentage of the total possible points earned as follows:

- Homework 50%. Homework will be grades as points per correct questions. Total points will count as 50% of the overall grade.

- Discussion posts 50%. Students are required to participate in a discussion of the research paper each week. Discussion posts will be graded on participation and on the quality of the posts. A sample rubric for discussion post grades can be found at the end of the syllabus.

The default grading scale for the course is A ≥ 90, A- 87-89.9, B+ 84 – 86.9, B 80 – 83.9, B- 77 – 79.9, C= 74 – 76.9, C 70 – 73.9, C- 67 – 69.9, D+ 64 – 66.9, D 60 – 63.9, D- 57 – 59.9, E ≤ 56.9. The scale may be shifted downward based on course performance, but will never be shifted upwards.

Information on the UF graduate school grading policy is available at: https://gradcatalog.ufl.edu/graduate/regulations/.

Attendance Policy: As an online asynchronous course, there is no attendance policy. However, students are expected to read each assigned research paper, complete assigned guided questions, and participate in discussion for each paper. If a student cannot complete the weekly assignment due to an acceptable reason for absence, the student must contact the professor and make appropriate arrangements. Excused absences must be consistent with university policies in the Graduate Catalog and require appropriate documentation. Additional information can be found in Attendance Policies.

Students Requiring Accommodations: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

University Honesty Policy: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use: All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy: Students who participate in live online office hours or review sessions with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use

a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited. There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Campus Resources:

Health and Wellness

U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS): Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints

Course Communications: Students are responsible for regularly checking announcements for important updates. Questions about course organization & operation, including grades, should be directed to Dr. Smith using the Canvas email system.

How to send a message on Canvas: https://community.canvaslms.com/t5/Student-Guide/How-do-I-send-a-message-to-a-user-in-a-course-in-the-Inbox-as-a/ta-p/502

Weekly Schedule: A research paper an appropriate review will be posted each Sunday. Guided questions should be completed by each Wednesday. Students will not be able to post on the discussion board until the guided questions are complete. Discussion posts will be due by the following Sunday. The journal club topic is translational medicine. The papers presented will follow the progress of several

basic science discoveries that were successfully carried through to treatments that improve the quality of human health.

Sample Discussion Board Rubric:

Required Elements					**Score**
	Excellent	Good	Fair	Poor	
Relevance of Post (4pts)	Clear understanding of the research paper and contains well developed ideas. Contains strong connections to course topic. (4)	Good understanding of research paper and contains well developed ideas. Contains good connections to course topics. (3 -2)	No clear understanding of research paper. Short off topic comments. (1)	No posting (0)	
Contribution to Learning (3pts)	Meaningful posts that promote and motivate group discussion. (3)	Attempts to direct discussion and present relevant information for consideration. (2)	Minimal effort to promote community discussion (1)	No posting (0)	
Quality of Post (3pts)	Thoughtful and reflective comments and respectful of other's posting. (3)	Appropriate comments, respectful of other's posting. (2)	Responds with minimal effort. (1)	No posting or disrespectful. (0)	
Mechanics (2pts)	Writing is clear and free of grammatical errors. (2)	Writing is clear with minimal (less than 5) grammatical errors. (1)	Writing is not clear or contains excessive grammatical errors (0.5)	No posting. (0)	
				Total	___/10

Course|New for request 18367

Info

Request: EDF 7XXX AI for Evaluation in Educational Environments
Description of request: This course provides knowledge and skills to implement AI methods to evaluate the effectiveness of educational programs and policies, investigate variability in program effects across groups and contexts, and optimize the matching of educational experiences to students.

Submitter: Walter Leite walter.leite@coe.ufl.edu
Created: 12/19/2022 12:08:33 PM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
EDF

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
7

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
C

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:

Advanced

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
AI for Evaluation in Educational Environments

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
AI for Evaluation in Education

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Fall

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2023

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
This course provides knowledge and skills to implement AI methods to evaluate the effectiveness of educational programs and policies, investigate variability in program effects across groups and contexts, and optimize the matching of educational experiences to students.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:

EDF 7482

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course introduces students in the Ph.D. program in Research and Evaluation Methodology to AI methods to evaluate the effectiveness of programs and variability in the effects of programs. AI provides robust tools to evaluate educational programs, but no current course in the curriculum addresses AI for educational program evaluation.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
1) provide students with the knowledge and experience in applying AI methods to estimate the effects of educational programs
2) Enable students to use AI to identify variation of the effects of educational programs across groups and settings;
3) Enable students to optimize the matching of educational experiences to students.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
There is no required textbook. Required journal articles and book chapters are provided on the Canvas course website.
Assigned readings:

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Week 1 – Introduction to propensity score methods for program evaluation
Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. Multivariate Behavioral Research, 46(3), 399-424. https://doi.org/10.1080/00273171.2011.568786

Thoemmes, F. J., & Kim, E. S. (2011). A Systematic Review of Propensity Score Methods in the Social Sciences. Multivariate Behavioral Research, 46(1), 90-118. https://doi.org/10.1080/00273171.2011.540475

Week 2 – Overview of propensity score estimation
Chapter 2 of Leite, W. L. (2017). Practical propensity score methods using R. Sage Publishing.

Week 3 – Boosting for propensity score estimation
McCaffrey, D. F., Ridgeway, G., & Morral, A. R. (2004). Propensity score estimation with boosted regression for evaluating causal effects in observational studies. Psychological Methods, 9, 403-425.

Week 4 – Neural Networks for Propensity score estimation
Collier, Z. K., & Leite, W. L. (2021). A Tutorial on Artificial Neural Networks in Propensity Score Analysis. The Journal of Experimental Education, 1-18. https://doi.org/10.1080/00220973.2020.1854158

Week 5 – Causal Forests for estimation of treatment effect heterogeneity
Carvalho, C., Feller, A., Murray, J., Woody, S., & Yeager, D. (2019). Assessing Treatment Effect Variation in Observational Studies: Results from a Data Challenge. Observational Studies, 5(2), 21-35. https://doi.org/10.1353/obs.2019.0000

Athey, S., & Wager, S. (2019). Estimating Treatment Effects with Causal Forests: An Application. Observational Studies, 5(2), 37-51. https://doi.org/10.1353/obs.2019.0001

Week 6 – Bayesian additive regression trees to estimate treatment effect heterogeneity
Carnegie, N., Dorie, V., & Hill, J. L. (2019). Examining treatment effect heterogeneity using BART. Observational Studies, 5(2), 52-70. https://doi.org/10.1353/obs.2019.0002

Green, D. P., & Kern, H. L. (2012). Modeling Heterogeneous Treatment Effects in Survey Experiments with Bayesian Additive Regression Trees. Public Opinion Quarterly, 76(3), 491-511. https://doi.org/10.1093/poq/nfs036

Week 8 – Generic Machine Learning for estimation of treatment effect heterogeneity
Caron, A., Baio, G., & Manolopoulou, I. (2020). Estimating individual treatment effects using non-parametric regression models: A review. Journal of the Royal Statistical Society: Series A, 185,

1115-1149.

Chernozhukov, V., Demirer, M., Duflo, E., & Fernández-Val, I. (2020). Generic Machine Learning Inference on Heterogenous Treatment Effects in Randomized Experiments. arXiv preprint(1712.04802). https://doi.org/https://arxiv.org/abs/1712.04802

Week 9 - Program evaluation with latent class analysis
Bray, B. C., Dziak, J. J., Patrick, M. E., & Lanza, S. T. (2018). Inverse Propensity Score Weighting with a Latent Class Exposure: Estimating the Causal Effect of Reported Reasons for Alcohol Use on Problem Alcohol Use 16 Years Later. Prevention Science, 20, 394–406. https://doi.org/10.1007/s11121-018-0883-8

Week 10 – Program evaluation with finite mixture models
Suk, Y., Kim, J.-S., & Kang, H. (2020). Hybridizing Machine Learning Methods and Finite Mixture Models for Estimating Heterogeneous Treatment Effects in Latent Classes. Journal of Educational and Behavioral Statistics. https://doi.org/10.3102/1076998620951983

Week 11 – Experimental designs for evaluation of adaptive interventions
Nahum-Shani, I., Qian, M., Almirall, D., Pelham, W. E., Gnagy, B., Fabiano, G. A., Waxmonsky, J. G., Yu, J., & Murphy, S. A. (2012). Experimental design and primary data analysis methods for comparing adaptive interventions. Psychol Methods, 17(4), 457-477. https://doi.org/10.1037/a0029372

Week 12 – Q learning for estimating dynamic treatment regimes
Nahum-Shani, I., Qian, M., Almirall, D., Pelham, W. E., Gnagy, B., Fabiano, G. A., Waxmonsky, J. G., Yu, J., & Murphy, S. A. (2012). Q-learning: a data analysis method for constructing adaptive interventions. Psychol Methods, 17(4), 478-494. https://doi.org/10.1037/a0029373

Week 13 – Deep Q learning for estimating dynamic treatment regimes
Tan, C., Han, R., Ye, R., & Chen, K. (2020). Adaptive Learning Recommendation Strategy Based on Deep Q-learning. Appl Psychol Meas, 44(4), 251-266. https://doi.org/10.1177/0146621619858674

Week 14 – Inverse probability of treatment weighting for estimating dynamic treatment regimes
Hernán, M. A., Lanoy, E., Costagliola, D., & Robins, J. M. (2006). Comparison of Dynamic Treatment Regimes via Inverse Probability Weighting. Basic & Clinical Pharmacology & Toxicology, 98(3), 237-242. 10.1111/j.1742-7843.2006.pto_329.x

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
Online discussions: Students will participate in online discussions. For each discussion topic, students are expected to make an initial contribution as well as provide at least two high-quality responses. A rubric for the grading of discussions will be provided.

Paper Reviews: Students will perform reviews of papers and make team presentations. There will be several due dates for paper reviews and presentations. The paper review and presentation will target the Application and Analysis levels of Bloom’s taxonomy.

Data analyses: Students will complete team data analyses of datasets and present results.

Research Project: Students will submit a final paper that can have at most two authors, which will follow the format of proposals for the Annual Meeting of the American Educational Research Association (AERA). The research project will target the Application, Analysis, Synthesis and Evaluation levels of Bloom's taxonomy.

Extra credit - No planned opportunities for extra credit exist in this course.
General policy on missed work - It is expected that no students will miss any assignments. No make-ups will be possible unless due to special circumstances (e.g., conference presentations, disease) which will require documentation. Assignments not turned in by their due date will incur grade reduction of 5% per day after the due date.
++
Assessment - weight
1. Online discussions – 16%
2. Paper reviews – 24%
3. Data analyses: 24%
4. Research Project – 36 %

Course Grades

Final grades will be assigned based on the scale below:

Overall course percent	grade
93.0% - 100%	A
90.0% - 92.9%	A-
87.0% - 89.9%	B+
83.0% - 86.9%	B
80.0% - 82.9%	B-
77.0% - 79.9%	C+
73.0% - 76.9%	C
70.0% - 72.9%	C-
67.0% - 69.9%	D+
63.0% - 66.9%	D
60.0% - 62.9%	D-
59.9% or less	E

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Walter Leite

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

EDF 7XXX – AI for Evaluation in Educational Environments
Fall 2023
Thursdays | Period 6-8 (12:50 AM - 3:50 PM)

Instructor: Walter Leite
Office: NRNA 2711J
Phone: 352-273-4302
Email: walter.leite@coe.ufl.edu

- To help me keep track of email messages, please include EDF 7XXX in the subject line of any email message you send to me.

Course Web Page: elearning.ufl.edu

Office Hours: Mondays 1 to 4 pm

Description
This on-campus course provides knowledge and skills to implement AI methods to evaluate the effectiveness of educational programs and policies, investigate variability in program effects across groups and contexts, and optimize the matching of educational experiences to students.

Prerequisites
EDF7482 – Quasi-experimental design and analysis in educational research

Objectives
The objectives of this course are: 1) provide students with the knowledge and experience in applying AI methods to estimate the effects of educational programs 2) Enable students to use AI to identify variation of the effects of educational programs across groups and settings; 3) Enable students to optimize the matching of educational experiences to students.

Student Learning Outcomes
1. Students will understand the process of propensity score analysis.
2. Students will implement multiple machine learning methods to estimate propensity scores.
3. Students will evaluate covariate balance.
4. Students will estimate conditional average treatment effects with multiple machine learning methods.
5. Students will evaluate relationships between covariates and conditional average treatment effects.
6. Students will implement model-based clustering methods.
7. Students will estimate causal effects of cluster membership.
8. Students will estimate and evaluate optimal treatment regimes.

TOPICS

1. Quasi-experimental designs for evaluation: Applications of supervised learning
2. Detection of treatment effect heterogeneity: Applications of supervised learning
3. Detection of treatment effect heterogeneity: Applications of unsupervised learning
4. Dynamic treatment regimes

Materials

There is no required textbook. Required journal articles and book chapters are provided on the Canvas course website.

Schedule of Required Readings:

Week 1 – Introduction to propensity score methods for program evaluation

Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate Behavioral Research*, *46*(3), 399-424. https://doi.org/10.1080/00273171.2011.568786

Thoemmes, F. J., & Kim, E. S. (2011). A Systematic Review of Propensity Score Methods in the Social Sciences. *Multivariate Behavioral Research*, *46*(1), 90-118. https://doi.org/10.1080/00273171.2011.540475

Week 2 – Overview of propensity score estimation

Chapter 2 of Leite, W. L. (2017). *Practical propensity score methods using R.* Sage Publishing.

Week 3 – Boosting for propensity score estimation

McCaffrey, D. F., Ridgeway, G., & Morral, A. R. (2004). Propensity score estimation with boosted regression for evaluating causal effects in observational studies. *Psychological Methods*, *9*, 403-425.

Week 4 – Neural Networks for Propensity score estimation

Collier, Z. K., & Leite, W. L. (2021). A Tutorial on Artificial Neural Networks in Propensity Score Analysis. *The Journal of Experimental Education*, 1-18. https://doi.org/10.1080/00220973.2020.1854158

Week 5 – Overview of estimation of treatment effects heterogeneity

Carvalho, C., Feller, A., Murray, J., Woody, S., & Yeager, D. (2019). Assessing Treatment Effect Variation in Observational Studies: Results from a Data Challenge. *Observational Studies*, *5*(2), 21-35. https://doi.org/10.1353/obs.2019.0000

Week 6 – Causal Forests for estimation of treatment effect heterogeneity

Athey, S., & Wager, S. (2019). Estimating Treatment Effects with Causal Forests: An Application. *Observational Studies*, *5*(2), 37-51. https://doi.org/10.1353/obs.2019.0001

Week 7 – Bayesian additive regression trees to estimate treatment effect heterogeneity

Carnegie, N., Dorie, V., & Hill, J. L. (2019). Examining treatment effect heterogeneity using BART. *Observational Studies*, *5*(2), 52-70. https://doi.org/10.1353/obs.2019.0002

Green, D. P., & Kern, H. L. (2012). Modeling Heterogeneous Treatment Effects in Survey Experiments with Bayesian Additive Regression Trees. *Public Opinion Quarterly*, *76*(3), 491-511. https://doi.org/10.1093/poq/nfs036

Week 8 – Generic Machine Learning for estimation of treatment effect heterogeneity

Caron, A., Baio, G., & Manolopoulou, I. (2020). Estimating individual treatment effects using non-parametric regression models: A review. *Journal of the Royal Statistical Society: Series A*, *185*, 1115-1149.

Chernozhukov, V., Demirer, M., Duflo, E., & Fernández-Val, I. (2020). Generic Machine Learning Inference on Heterogenous Treatment Effects in Randomized Experiments. *arXiv preprint*(1712.04802). https://doi.org/https://arxiv.org/abs/1712.04802

Week 9 - Program evaluation with latent class analysis

Bray, B. C., Dziak, J. J., Patrick, M. E., & Lanza, S. T. (2018). Inverse Propensity Score Weighting with a Latent Class Exposure: Estimating the Causal Effect of Reported Reasons for Alcohol Use on Problem Alcohol Use 16 Years Later. *Prevention Science*, *20*, 394–406. https://doi.org/10.1007/s11121-018-0883-8

Week 10 – Program evaluation with finite mixture models

Suk, Y., Kim, J.-S., & Kang, H. (2020). Hybridizing Machine Learning Methods and Finite Mixture Models for Estimating Heterogeneous Treatment Effects in Latent Classes. *Journal of Educational and Behavioral Statistics*. https://doi.org/10.3102/1076998620951983

Week 11 – Experimental designs for evaluation of adaptive interventions

Nahum-Shani, I., Qian, M., Almirall, D., Pelham, W. E., Gnagy, B., Fabiano, G. A., Waxmonsky, J. G., Yu, J., & Murphy, S. A. (2012). Experimental design and primary data analysis methods for comparing adaptive interventions. *Psychol Methods*, *17*(4), 457-477. https://doi.org/10.1037/a0029372

Week 12 – Q learning for estimating dynamic treatment regimes

Nahum-Shani, I., Qian, M., Almirall, D., Pelham, W. E., Gnagy, B., Fabiano, G. A., Waxmonsky, J. G., Yu, J., & Murphy, S. A. (2012). Q-learning: a data analysis method for constructing adaptive interventions. *Psychol Methods*, *17*(4), 478-494. https://doi.org/10.1037/a0029373

Week 13 – Deep Q learning for estimating dynamic treatment regimes

Tan, C., Han, R., Ye, R., & Chen, K. (2020). Adaptive Learning Recommendation Strategy Based on Deep Q-learning. *Appl Psychol Meas*, *44*(4), 251-266. https://doi.org/10.1177/0146621619858674

Week 14 – Inverse probability of treatment weighting for estimating dynamic treatment regimes

Hernán, M. A., Lanoy, E., Costagliola, D., & Robins, J. M. (2006). Comparison of Dynamic Treatment Regimes via Inverse Probability Weighting. *Basic & Clinical Pharmacology & Toxicology*, *98*(3), 237-242. 10.1111/j.1742-7843.2006.pto_329.x

Course Requirements

The course will follow Team-Based Learning (http://www.teambasedlearning.org/) principles. Students are expected to read course materials and watch the lecture video associated with each class meeting in advance of the meeting. The assessments are based on targeting different levels of Bloom's taxonomy.

Online Discussions: Students will participate in 3 asynchronous discussions using the discussion page of the Canvas platform. For each discussion topic, students are expected to make an initial contribution as well as provide at least two high-quality responses. A rubric for the grading of discussions will be provided. Students will make posts on online course discussions prior to the class meeting. The posts of these discussions will be used during the course meeting as part of the class discussion.

Paper Reviews: Students will perform 2 reviews of papers and make team presentations. There will be several due dates for paper reviews and presentations. The paper review and presentation will target the Application and Analysis levels of Bloom's taxonomy.

Data analyses: Students will complete 2 team data analyses of datasets and present results.

Research Project: Students will submit a final paper that can have at most two authors, which will follow the format of proposals for the Annual Meeting of the American Educational Research Association (AERA). The research project will target the Application, Analysis, Synthesis and Evaluation levels of Bloom's taxonomy.

Extra credit - No planned opportunities for extra credit exist in this course.

Assessment - weight

1. Online discussions – 16%
2. Paper reviews – 24%
3. Data analyses: 24%
4. Research Project – 36 %

Course Grades

Final grades will be assigned based on the scale below:

Overall course percent	*grade*
93.0% - 100%	A
90.0% - 92.9%	A-
87.0% - 89.9%	B+
83.0% - 86.9%	B
80.0% - 82.9%	B-
77.0% - 79.9%	C+
73.0% - 76.9%	C
70.0% - 72.9%	C-
67.0% - 69.9%	D+
63.0% - 66.9%	D
60.0% - 62.9%	D-
59.9% or less	E

Information about UF grading policies can be found at
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Unless a computational error has been made, grades will not be changed after the end of the semester.

Class Attendance

As a matter of mutual courtesy, please let the instructor know when you're going to be late, when you're going to miss class, or if you need to leave early. Please try to do any of these as little as possible. Students are expected to be present for all classes, since much material will be covered only once in class. Attendance will not be checked or graded, but you are responsible for the content of all classes, including issues raised in the spontaneous class discussions. If you must miss a class, please request notes from your classmates.
Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Assignments not turned in by their due date will incur grade reduction of 5% per day after the due date.

Academic dishonesty

For University's honesty policy regarding cheating and use of copyrighted materials, see:
http://www.dso.ufl.edu/judicial/procedures/honestybrochure.php
Written assignments will be checked for plagiarism against published works, other papers submitted by classmates at the current and previous semesters and internet pages using Turnitin,

which is UF's plagiarism detection software. It is expected that submitted work for individual assignments will solely reflect the student's own efforts. Students are expected not to collaborate in writing answers, or interpreting results. However, collaborations in running statistical software are acceptable, as long as each student works on his/her report separately.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/ . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/ . Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

About Canvas and Technology:

Our course will be delivered through Canvas. There is an extensive Frequently Asked Questions Page for you to review, as well as a student canvas guide if you would like to get more familiarity with the online portal.

The University of Florida provides 24/7 Help Desk support for Canvas (online learning, Account (Gatorlink and UF email), and Application Supported services (Microsoft 365). This is for technical issues. The help desk cannot address any grading issues. Phone: (352) 392-HELP (4357) Email: helpdesk@ufl.edu

Additionally, The College of Education provides support to students during business work hours (8AM-5PM Mon-Fri) with Canvas issues. You can contact us at our own help desk at help@coe.ufl.edu. For urgent issues occurring after hours, please contact the UF Help Desk at help@ufl.edu

How to Do Well in This Course:

- To get the most out of the material, read the assigned chapters before listening to the lectures. This will make it easier for you to gauge your understanding of the material.
- Do not wait until the last week to complete your research project. Discuss your topic with your instructor several weeks in advance of the deadline.
- Please do not hesitate to contact me via email if you have questions or concerns.

Course Incompletes:

A grade of Incomplete "I" will only be given in extreme circumstances (i.e., hospitalization) and must be pre-approved by the instructor. If approved, a contract will be drawn up with the student specifying assignments and due dates. According to the University, all incomplete work must be completed by the following semester or you will receive a punitive incomplete (i.e., the same as an "E").

Accommodations for Students with Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Counseling and Student Health

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information: http://www.counsel.ufl.edu/ or http://www.health.ufl.edu/shcc/smhs/index.htm#urgent

Crisis intervention is always available 24/7 from:
Alachua County Crisis Center: (352) 264-6789

. ***Academic Resources:***

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml

Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. https://career.ufl.edu/

Library Support, http://cms.uflib.ufl.edu/ask Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. http://teachingcenter.ufl.edu/

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. http://writing.ufl.edu/writing-studio/

Student Complaints On-Campus: https://sccr.dso.ufl.edu/policies/student-honor- code-student-conduct-code/

On-Line Students Complaints: https://distance.ufl.edu/student-complaint-process/

Course|New for request 18395

Info

Request: EDH 6XXX Academic and Student Affairs Collaborations
Description of request: The Student Personnel in Higher Education program area is requesting that a new course be established.
Submitter: Clifford Haynes cliffh@ufl.edu
Created: 4/24/2023 3:18:17 PM
Form version: 3

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
EDH

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Academic and Student Affairs Collaborations

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Acad & Student Affairs Collab

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus, Off-Campus, Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the

department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Explores high impact partnerships between academic and student affairs that contribute to student learning and retention. Examines student characteristics and institutional contexts that correlate with student persistence to design and evaluate learning experiences for students.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
Graduate level

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This required course is taken in the second year of study by students in the online M.Ed. program in Student Personnel in Higher Education. It is also taken as an elective in the on-campus M.Ed. program in Student Personnel in Higher Education, the online Ed.D. program, and the on-campus Ph.D. program in Higher Education Administration. Its inclusion in the curriculum meets Part 5b.4. Organization and Administration of Higher Education area of the Professional Content Area of the Council for the Advancement of Standards (CAS) Standards and Guidelines for master’s level professional preparation programs in higher education and student affairs, which is used to evaluate the master's program curriculum during program review.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
Upon completion of this course, students will be able to:
Describe the origins and history of high impact practices for undergraduate learning.

Critically evaluate programs or initiatives that aim to support student learning and retention.

Identify opportunities for powerful academic and student affairs collaborations in their sphere of higher education.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
REQUIRED TEXTS
BrckaLorenz, A., Garvey, J. C., Hurtado, S. S., & Latopolski, K. (2017). High-impact practices and student–faculty interactions for gender-variant students. Journal of Diversity in Higher Education, 10(4), 350–365.

Finley, A., & McNair, T. (2013). Assessing underserved students' engagement in high-impact practices.

Kuh, G. D. (2008a). Why integration and engagement are essential to effective educational practice in the twenty-first century. Peer Review, 10(4), 27.

Sandeen, C. (2012). High-Impact Educational Practices: What We Can Learn from the Traditional Undergraduate Setting. Continuing Higher Education
Review, 76, 81-89.

Wawrzynski, M., & Baldwin, R. (2014). Promoting high-impact student learning: Connecting key components of the collegiate experience. New directions for higher education, 165(2014), 51-62.

Additional readings will be posted on Canvas for each module.

SUPPLEMENTAL TEXTS
Kuh, G. D. (2008b). High-impact educational practices: What they are, who has access to them, and why they matter. Association of American Colleges and Universities.

Kuh, G. D., O'Donnell, K., & Reed, S. (2013). Ensuring quality and taking high-impact practices to scale. Association of American Colleges and Universities.

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Weeks 1 + 2
Topic: Introduction and Overview
Assignment(s): Complete Module 1 Discussion Post
Primary Reading: Sandeen

Weeks 3 + 4
Topic: High Impact Practices and Diverse Learners
Assignment(s): HIP Overview; Complete Module 2 Discussion Post
Primary Reading: BrckaLorenz et al.; Finley & McNair

Weeks 5 + 6
Topic: HIPS in Depth Part 1
Assignment(s): Complete Module 3 Discussion Post
Primary Reading: Wawrzynski & Baldwin
Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)

Weeks 7 + 8
Topic: HIPS in Depth Part 2
Assignment(s): Complete Module 4 Discussion Post; Program Enhancement Plan
Primary Reading: Wawrzynski & Baldwin
Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)

Weeks 9 + 10
Topic: HIPS in Depth Part 3
Assignment(s): Complete Module 5 Discussion Post
Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)

Weeks 11 + 12
Topic: HIPS in Depth Part 4
Assignment(s): Complete Module 6 Discussion Post
Primary Reading: parts of Kuh, O'Donnell, & Reed
Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)

Weeks 13 + 14
Topic: The Future of Academic & Student Affairs Collaborations
Assignment(s): Complete Module 7 Discussion Post
Primary Reading: Kuh (2008a)

Weeks 15 + 16
Topic: Wrap up + Final presentations
Assignment(s): Final Reflection due

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
High Impact Practice Overview. (25% of overall grade)
Students will be assigned a specific high impact practice (HIP) on which to create a 10-12 minute recorded zoom teaching presentation. The zoom presentation should include an overview of the initiative, a literature review of its impact broadly, and an exploration of 2-3 exemplar programs at colleges and universities that represent this HIP in practice. This assignment should demonstrate a comprehensive understanding of the high impact practice as well as your skills in delivering a compelling online teaching/training to your colleagues. Depending on course enrollment this may be assigned as a group project.

Discussion Posts.(30% of overall grade)
Students will participate in discussion posts related to lectures, readings, and colleague presentations during the second week of each module. For each module, students must complete the discussion prompt and respond to at least two colleagues' posts. These discussions will be used during the course as part of the class discussion.

Program Enhancement Plans.(30% of overall grade)
Students will select an appropriate program from their institution for which to provide an 8-10 page program enhancement plan. Synthesizing course materials, local data, additional sources, and at least one student and one staff member interview, students will complete a report that could be shared with the department head, including an executive summary; a program overview; a description of identified strengths, weaknesses, opportunities, threats; and key recommendations. The report should be framed by foundational and current literature and best practices, and adhere to APA style.

Final Reflection. (15% of overall grade)
Each student will turn in a brief (3-5 page) reflective paper outlining their key takeaways from this course and their next steps as a higher education leader. Course assignments and discussion posts should lead up to this more comprehensive self-reflection. In addition to submission to the instructor, the final discussion post assignment will include a ~2 minute video summarizing key reflections.

Course Grading Scale

Final course grades will be assigned using the following scale:
93.00-100% (A)
90.00-92.99% (A-)
87.00-89.99% (B+)
83.00-86.99% (B)
80.00-82.99% (B-)
77.00-79.99% (C+)
73.00-76.99% (C)
70.00-72.99% (C-)
67.00-69.99% (D+)
63.00-66.99% (D)
60.00-62.99% (D-)
0-59.99% (E)
A grade of Incomplete (I) will only be issued for extreme circumstances

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Mary Jordan
Cliff Haynes

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• *https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx*

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.*

* *

Response:
Yes

Academic and Student Affairs Collaborations
EDH 6XXX: Section XXXX
Class Period: Day, Period, Time
Class Location: _____
Academic Term: Fall 20XX
3 credit course

INSTRUCTOR CONTACT INFORMATION:

Name: _____
E-mail: _____
Office Phone: _____
Office Hours: __(day)_____ from __(time)_____. Others by appointment.
Office: Norman Hall _____

COURSE DESCRIPTION:

Explores high impact partnerships between academic and student affairs that contribute to student learning and retention. Examines student characteristics and institutional contexts that correlate with student persistence to design and evaluate learning experiences for students.

COURSE OBJECTIVES:

Upon completion of this course, students will be able to:

- Describe the origins and history of high impact practices for undergraduate learning.
- Critically evaluate programs or initiatives that aim to support student learning and retention.
- Identify opportunities for powerful academic and student affairs collaborations in their sphere of higher education.

TEXTBOOKS:

Required

- BrckaLorenz, A., Garvey, J. C., Hurtado, S. S., & Latopolski, K. (2017). High-impact practices and student–faculty interactions for gender-variant students. *Journal of Diversity in Higher Education, 10*(4), 350–365.
- Finley, A., & McNair, T. (2013). Assessing underserved students' engagement in high-impact practices.
- Kuh, G. D. (2008a). Why integration and engagement are essential to effective educational practice in the twenty-first century. *Peer Review, 10*(4), 27.
- Sandeen, C. (2012). High-impact educational practices: What we can learn from the traditional undergraduate setting. *Continuing Higher Education Review, 76*, 81-89.
- Wawrzynski, M., & Baldwin, R. (2014). Promoting high-impact student learning: Connecting key components of the collegiate experience. *New directions for higher education, 165*(2014), 51-62.
- Additional course readings available on Canvas or via the university library.

Recommended

- Kuh, G. D. (2008b). *High-impact educational practices: What they are, who has access to them, and why they matter*. Association of American Colleges and Universities.
- Kuh, G. D., O'Donnell, K., & Reed, S. (2013). *Ensuring quality and taking high-impact practices to scale*. Association of American Colleges and Universities.

SCHEDULE

Disclaimer: Students are encouraged to employ critical thinking and to rely on data and verifiable sources to interrogate all assigned readings and subject matter in this course as a way of determining whether they agree with their classmates and/or their instructor. No lesson is intended to espouse, promote, advance, inculcate, or compel a particular feeling, perception, viewpoint or belief.

Week	Topic	Reading Due	Assignment(s) Due
1	Introduction and Overview	Syllabus	
2		Sandeen	Complete Module 1 Discussion Post
3	High Impact Practices and Diverse Learners	BrckaLorenz et al.	HIP Overview
4		Finley & McNair	Complete Module 2 Discussion Post
5	HIPS in Depth Part 1	Required: Wawrzynski & Baldwin	
6		Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)	Complete Module 3 Discussion Post
7	HIPS in Depth Part 2	Required: Wawrzynski & Baldwin	Program Enhancement Plan
8		Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)	Complete Module 4 Discussion Post
9	HIPS in Depth Part 3	Required: Wawrzynski & Baldwin	
10		Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)	Complete Module 5 Discussion Post
11	HIPS in Depth Part 4	Required: Wawrzynski & Baldwin	
12		Supplemental: Parts of Kuh (2008b) & Kuh et al. (2013)	Complete Module 6 Discussion Post
13	The Future of Academic & Student Affairs Collaborations	Kuh (2008a)	
14			Complete Module 7 Discussion Post
15	Wrap up + Final presentations		Final Reflection

COURSE AND UNIVERSITY POLICIES:

Attendance, Make-Up Exams and Assignments

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance

COURSE ASSIGNMENTS:

High Impact Practice Overview. (25% of overall grade)

Students will be assigned a specific high impact practice (HIP) on which to create a 10-12 minute recorded zoom teaching presentation. The zoom presentation should include an overview of the initiative, a literature review of its impact broadly, and an exploration of 2-3 exemplar programs at colleges and universities that represent this HIP in practice. This assignment should demonstrate a comprehensive understanding of the high impact practice as well as your skills in delivering a compelling online teaching/training to your colleagues. Depending on course enrollment this may be assigned as a group project.

Discussion Posts. (30% of overall grade)

Students will participate in discussion posts related to lectures, readings, and colleague presentations during the second week of each module. For each module, students must complete the discussion prompt and respond to at least two colleagues' posts. These posts will be used during the course as part of the class discussion.

Program Enhancement Plans. (30% of overall grade)

Students will select an appropriate program from their institution for which to provide an 8-10 page program enhancement plan. Synthesizing course materials, local data, additional sources, and at least one student and one staff member interview, students will complete a report that could be shared with the department head, including an executive summary; a program overview; a description of identified strengths, weaknesses, opportunities, threats; and key recommendations. The report should be framed by foundational and current literature and best practices, and adhere to APA style.

Final Reflection. (15% of overall grade)

Each student will turn in a brief (3-5 page) reflective paper outlining their key takeaways from this course and their next steps as a higher education leader. Course assignments and discussion posts should lead up to this more comprehensive self-reflection. In addition to submission to the instructor, the final discussion post assignment will include a ~2 minute video summarizing key reflections.

GRADING:

Assignment	**Percentage of Final Grade**
High Impact Practice Overview	25
Discussion Points	30
Program Enhancement Plans	30
Final Reflection	15
TOTAL POSSIBLE POINTS	100%

Course Grading Scale

93.00-100% (A)
90.00-92.99% (A-)
87.00-89.99% (B+)
83.00-86.99% (B)
80.00-82.99% (B-)
77.00-79.99% (C+)
73.00-76.99% (C)
70.00-72.99% (C-)
67.00-69.99% (D+)
63.00-66.99% (D)
60.00-62.99% (D-)
0-59.99% (E)

More information on UF grading policy may be found at:
http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades

CAMPUS POLICIES:

Accommodations for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Online Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

UF Student Honor Code

UF students are bound by the Honor Pledge which states, "We, the members of the UF community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at UF, the following pledge is either required or implied, "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Synchronous Course Participation

Our synchronous class sessions may be audio and visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

CAMPUS RESOURCES:

Health and Wellness

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.
- University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.
- GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.

Academic Resources

- E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center: 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- On-Line Students Complaints: View the Distance Learning Student Complaint Process.

Student Complaint Process

The University of Florida believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy.

- Information for residential courses can be found at https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
- Information for online courses can be found at http://distance.ufl.edu/student-complaint-process/

COMMITMENT TO A SAFE AND INCLUSIVE LEARNING ENVIRONMENT:

Inclusive Practices

Include a statement regarding topics related to inclusive practices (i.e., inclusive communication in classroom discussions, respect for diversity, accessibility and accommodations, religious and cultural observances, attendance and participation) FMI https://education.ufl.edu/college-curriculum-committee/developing-an-inclusive-syllabus/

Land Acknowledgment

A Land Acknowledgement is a formal statement that recognizes and respects Indigenous Peoples as traditional stewards of this land and the enduring relationship that exists between Indigenous Peoples and their traditional territories. In particular, the University of Florida resides on land of the Timucua people and the Seminole Tribe of Florida. Additionally, we acknowledge that Indigenous land was expropriated from over 120+ tribal nations as part of the Morrill Act in order to originally fund the University of Florida.

It is important to understand the long standing history that has brought you to reside on the land, and to seek to understand your place within that history. Land acknowledgements do not exist in a past tense, or historical context: colonialism is a current ongoing process, and we need to build our mindfulness of our present participation. It is also worth noting that acknowledging the land is Indigenous protocol. For more information, visit *http://www.lspirg.org/knowtheland*

Course|New for request 18396

Info

Request: EDH 6XXX Coaching Models for Student Success in Higher Education
Description of request: The Student Personnel in Higher Education program area is requesting that a new course be established.
Submitter: Clifford Haynes cliffh@ufl.edu
Created: 4/24/2023 3:21:17 PM
Form version: 3

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
EDH

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Coaching Models for Student Success in Higher Education

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Coach Mod for Stu Succ in HE

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus, Off-Campus, Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the

department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Introduces techniques and methods for coaching, mentoring, and supporting student success in higher education, including but not limited to, academic coaching, life/career coaching, and wellness coaching. Explores skills to assess, design, implement, and evaluate effective coaching models and interventions.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
Graduate level status

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This required course is taken in the second year of study by students in the online M.Ed. program in Student Personnel in Higher Education. It may be taken as an elective in the on-campus M.Ed. program in Student Personnel in Higher Education, the online Ed.D. program, and the on-campus Ph.D. program in Higher Education Administration. Its inclusion in the curriculum meets Part 5b.3. Individual and Group Strategies area of the Professional Content Area of the Council for the Advancement of Standards (CAS) Standards and Guidelines for master’s level professional preparation programs in higher education and student affairs, which is used to evaluate the master's program curriculum during program review.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
Students will be able to:
1. Apply fundamental coaching skills, techniques, and knowledge to coaching situations

2. Design a coaching program

3. Identify the necessary steps to obtain coaching certifications.

4. Evaluate published research related to coaching, mentoring and student success in Higher Education.

5. Recognize the basic tenets of coaching ethics

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Lancer, N., Clutterbuck, D., & Megginson, D. (2016). Techniques for coaching and mentoring. Routledge.

Van Nieuwerburgh, C. (2020). An introduction to coaching skills: A practical guide. Sage.

Additional course readings available on Canvas or via the university library.

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Week 1
Topic: Course Outcomes; Syllabus Review; Broad Field of Coaching; Coaching in Higher Education; Working definitions of student success

Week 2
Topic: Definitions of Coaching; Coaching Competencies
Reading: IFC Competencies available on canvas

Week 3
Topic: Benefits of Coaching; Role of a Coach and Becoming a Coach
Reading: Van Nieuwerburgh Ch. 2
Assignment(s): Core Competencies

Week 4
Topic: Types of Coaching - Academic Coaching; Advising vs. Coaching; The Coaching Relationship
Assignment(s): Start to work on Interview

Week 5
Topic: Types of Coaching - Student Success and Life Coaching; Connecting with the Coachee
Assignment(s): Start to work on final program analysis by identifying program/institution

Week 6
Reading: Van Nieuwerburgh Ch. 3
Topic: Types of Coaching - Wellness Coaching; Key Skills - Listening

Week 7
Reading: Van Nieuwerburgh Ch. 4
Topic: Types of Coaching - Career Coaching, Peer Coaching; Key Skills – Asking questions

Week 8
Topic: Types of Coaching - Mentoring; The Coaching Process - Conversational Frameworks
Reading: Van Nieuwerburgh Ch. 7
Assignment(s): Coach Interview

Week 9

Topic: Coaching for Specific Populations; The Coaching Process
Reading: Lancet et al

Week 10
Topic: Models of Coaching -Integrated Model of Goal-Focused Coaching; Techniques
Reading: Lancet et al
Assignment(s): Case Study

Week 11:
Reading: Lancet et al
Topic: Models of Coaching – the Foursquare Coaching Framework; Techniques

Week 12:
Reading: Lancet et al
Topic: Models of Coaching - Instructional Coaching; Techniques
Assignment(s): Journal Article

Week 13:
Reading: Lancet et al
Topic: Models of Coaching- Coaching Circles; The Coaching Way of Being

Week 14: Governing Bodies and Training

Week 15: Final-Wrap-up
Assignment(s): Coaching Program Analysis

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
1. Core Competencies Reflection Paper (100 points): This is a reflection paper of no more than three pages on the Updated ICF Core Competencies.

2. Interview with a Coach (100 points): Students will interview a coach at a higher education institution with an open-ended interview format. Questions must be informative and elicit meaningful information concerning coach training and career path, how the coach supports student success and outcomes, and coaching issues. Students should submit an executive summary of the interview as well as a transcript of the interview. Additionally, students will also provide the following: the interviewee's name, type of coach, program, and institution.

3. Case Study (150 points): Students will be presented with a hypothetical scenario. Students will work in pairs and submit possible solutions that integrate what they are learning in the course, identify two potential courses of action, and outline the pros and cons of each potential course of action from a higher education standpoint.

4. Journal Article critique (150 points): Students will select empirically based refereed journal articles to analyze from options provided. A critique is to discuss, analyze, and evaluate—not to summarize the article. A critique focuses on how? why? and how well? Focus the analysis on the questions provided. (See instructions in Canvas.).

5. Coaching Program Analysis Paper & Presentation (250 points): Students will select a Coaching Program at an institution of their choice and conduct a thorough analysis of the program. The program audit will include a thorough description of the program. This should include the history, goals, expected student outcomes, population they serve, staffing and a brief description of the institution itself. As part of the program evaluation, students will include a discussion section on the success of the program based on their review and any future recommendations.

Students will then:
(a) Prepare a PowerPoint summary (no more than 5 slides, not including title/cover slide) including program description, discussion, and recommendations. Present your presentation to your group. - 130 points.
(b) Prepare a 2-3 page executive summary of the program overview and evaluation. - 120 points

Course Grading Scale
Final course grades will be assigned using the following scale:
93.00-100% (A)
90.00-92.99% (A-)
87.00-89.99% (B+)
83.00-86.99% (B)
80.00-82.99% (B-)
77.00-79.99% (C+)
73.00-76.99% (C)
70.00-72.99% (C-)
67.00-69.99% (D+)
63.00-66.99% (D)
60.00-62.99% (D-)
0-59.99% (E)
A grade of Incomplete (I) will only be issued for extreme circumstances

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Jean Starobin
Cliff Haynes

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• *https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx*

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.*

* *

Response:
Yes

Coaching Models for Student Success in Higher Education
EDH 6XXX: Section XXXX
Class Period: Day, Period, Time
Class Location: _____
Academic Term: Fall 20XX
3 credit course

INSTRUCTOR CONTACT INFORMATION:

Name: _____
E-mail: _____
Office Phone: _____
Office Hours: __(day)_____ from __(time)_____. Others by appointment.
Office: Norman Hall _____

COURSE DESCRIPTION:

Introduces techniques and methods for coaching, mentoring, and supporting student success in higher education, including but not limited to, academic coaching, life/career coaching, and wellness coaching. Explores skills to assess, design, implement, and evaluate effective coaching models and interventions.

COURSE OBJECTIVES:

Students will be able to:

1. Apply fundamental coaching skills, techniques, and knowledge to coaching situations.
2. Design a coaching program
3. Identify the necessary steps to obtain coaching certifications.
4. Evaluate published research related to coaching, mentoring and student success in Higher Education.
5. Recognize the basic tenets of coaching ethics

TEXTBOOKS:

Required

- Lancer, N., Clutterbuck, D., & Megginson, D. (2016). *Techniques for coaching and mentoring*. Routledge.
- Van Nieuwerburgh, C. (2020). *An introduction to coaching skills: A practical guide*. Sage.
- Additional course readings available on Canvas or via the university library.

SCHEDULE

Disclaimer: Students are encouraged to employ critical thinking and to rely on data and verifiable sources to interrogate all assigned readings and subject matter in this course as a way of determining whether they agree with their classmates and/or their instructor. No lesson is intended to espouse, promote, advance, inculcate, or compel a particular feeling, perception, viewpoint or belief.

Week	Topic	Reading Due	Assignment(s) Due
1	Course Outcomes Broad Field of Coaching; Coaching in Higher Education; Working definitions of student success	Syllabus	
2	Definitions of Coaching; Coaching Competencies	IFC Competencies available on Canvas	
3	Benefits of Coaching; Role of a Coach and Becoming a Coach	Van Nieuwerburgh Ch. 2	Core Competencies Reflection paper
4	Types of Coaching - Academic Coaching; Advising vs. Coaching; The Coaching Relationship		Start to work on Interview

Week	Topic	Reading Due	Assignment(s) Due
5	Types of Coaching - Student Success and Life Coaching; Connecting with the Coachee		Start to work on final program analysis by identifying program/institution
6	Types of Coaching - Wellness Coaching; Key Skills – Listening	Van Nieuwerburgh - Ch 3	
7	Types of Coaching - Career Coaching, Peer Coaching; Key Skills – Asking Questions	Van Nieuwerburgh – Ch. 4	
8	Types of Coaching - Mentoring; The Coaching Process - Conversational Frameworks	Van Nieuwerburgh – Ch 7	Coach Interview
9	Coaching for Specific Populations; The Coaching Process	Lancet et al	
10	Models of Coaching - Integrated Model of Goal-Focused Coaching; Techniques	Lancet et al	Case Study
11	Models of Coaching – the Foursquare Coaching Framework; Techniques	Lancet et al	
12	Models of Coaching - Instructional Coaching; Techniques	Lancet et al	Journal Article
13	Models of Coaching- Coaching Circles; The Coaching Way of Being	Lancet et al	
14	Governing Bodies and Training		
15	Final Wrap-up		Coaching Program Analysis

COURSE AND UNIVERSITY POLICIES:

Attendance, Make-Up Exams and Assignments

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance

COURSE ASSIGNMENTS:

Core Competencies Reflection Paper (100 points)

This is a reflection paper of no more than three pages on the Updated ICF Core Competencies.

Interview with a Coach (100 points)

Students will interview a coach at a higher education institution with an open-ended interview format. Questions must be informative and elicit meaningful information concerning coach training and career path, how the coach supports student success and outcomes, and coaching issues. Students should submit an executive summary of the interview as well as a transcript of the interview. Additionally, students will also provide the following: the interviewee's name, type of coach, program, and institution.

Case Study (150 points)

Students will be presented with a hypothetical scenario. Students will work in pairs and submit possible solutions that integrate what they are learning in the course, identify two potential courses of action, and outline the pros and cons of each potential course of action from a higher education standpoint.

Journal Article critique (150 points)
Students will select empirically based refereed journal articles to analyze from options provided. A critique is to discuss, analyze, and evaluate—not to summarize the article. A critique focuses on how? why? and how well? Focus the analysis on the questions provided. (See instructions in Canvas.).

Coaching Program Analysis Paper & Presentation (250 points)
Students will select a Coaching Program at an institution of their choice and conduct a thorough analysis of the program. The program audit will include a thorough description of the program. This should include the history, goals, expected student outcomes, population they serve, staffing and a brief description of the institution itself. As part of the program evaluation, students will include a discussion section on the success of the program based on their review and any future recommendations. Students will then:

a. Prepare a PowerPoint summary (no more than 5 slides, not including title/cover slide) including program description, discussion, and recommendations. Present your presentation to your group. - 130 points.
b. Prepare a 2-3 page executive summary of the program overview and evaluation. - 120 points

GRADING:

Assignment	Points	Percentage of Final Grade
Core Competencies Reflection Paper	100	13.33
Interview with a Coach	100	13.33
Case Study	150	20
Journal Article Critique	150	20
Coaching Program Analysis Paper and Presentation	250	33.34
TOTAL POSSIBLE POINTS	750	100%

Course Grading Scale
93.00-100% (A)
90.00-92.99% (A-)
87.00-89.99% (B+)
83.00-86.99% (B)
80.00-82.99% (B-)
77.00-79.99% (C+)
73.00-76.99% (C)
70.00-72.99% (C-)
67.00-69.99% (D+)
63.00-66.99% (D)
60.00-62.99% (D-)
0-59.99% (E)
More information on UF grading policy may be found at:
http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades

CAMPUS POLICIES:
Accommodations for Students with Disabilities
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Online Course Evaluation Process
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under

GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

UF Student Honor Code
UF students are bound by the Honor Pledge which states, "We, the members of the UF community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at UF, the following pledge is either required or implied, "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.

Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy
There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Synchronous Course Participation
Our synchronous class sessions may be audio and visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

In-Class Recording
Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording

without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

CAMPUS RESOURCES:

Health and Wellness

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.
- University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.
- GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.

Academic Resources

- E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center: 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- On-Line Students Complaints: View the Distance Learning Student Complaint Process.

Student Complaint Process

The University of Florida believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy.

- Information for residential courses can be found at https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.
- Information for online courses can be found at http://distance.ufl.edu/student-complaint-process/

COMMITMENT TO A SAFE AND INCLUSIVE LEARNING ENVIRONMENT:

Inclusive Practices

Include a statement regarding topics related to inclusive practices (i.e., inclusive communication in classroom discussions, respect for diversity, accessibility and accommodations, religious and cultural observances, attendance and participation) FMI https://education.ufl.edu/college-curriculum-committee/developing-an-inclusive-syllabus/

Land Acknowledgment

A Land Acknowledgement is a formal statement that recognizes and respects Indigenous Peoples as traditional stewards of this land and the enduring relationship that exists between Indigenous Peoples and their traditional territories. In particular, the University of Florida resides on land of the Timucua people and the Seminole Tribe of Florida. Additionally, we acknowledge that Indigenous land was expropriated from over 120+ tribal nations as part of the Morrill Act in order to originally fund the University of Florida.

It is important to understand the long standing history that has brought you to reside on the land, and to seek to understand your place within that history. Land acknowledgements do not exist in a past tense, or historical context: colonialism is a current ongoing process, and we need to build our mindfulness of our present participation. It is also worth noting that acknowledging the land is Indigenous protocol. For more information, visit *http://www.lspirg.org/knowtheland*

Course|New for request 18260

Info

Request: ENU 6XXXC Advanced Radiation Measurement Laboratory
Description of request: Create a new course ENU 6XXX - Advanced Radiation Measurement Laboratory.
Submitter: Tahara Franklin tfranklin@mse.ufl.edu
Created: 5/31/2023 12:55:23 PM
Form version: 2

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
ENU

Course Level
Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:
3

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Intermediate

- *1000 level = Introductory undergraduate*
- *2000 level = Introductory undergraduate*
- *3000 level = Intermediate undergraduate*
- *4000 level = Advanced undergraduate*
- *5000 level = Introductory graduate*
- *6000 level = Intermediate graduate*
- *7000 level = Advanced graduate*
- *4000/5000= Joint undergraduate/graduate*
- *4000/6000= Joint undergraduate/graduate*

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
C

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Advanced Radiation Measurement Laboratory

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
ADV RAD MEASURE LAB

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
Advanced radiation detection methods and applications in the fields of nuclear safeguards, dosimetry, and nuclear medicine. Coverage of radiological non-destructive assay methods for materials control and accountability. Hands-on experience on state-of-the-art radiation detection instrumentation.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
ENU 6051

Completing Prerequisites on UCC forms:

• Use "&" and "or" to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example: A grade of C in HSC 3502, passing grades in HSC 3057 or HSC 4558, and undergraduate PBH student should be written as follows: HSC 3502(C) & (HSC 3057 or HSC 4558) & UGPBH

* *

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course serves PhD students pursuing research careers that require a high-level knowledge of radiation detection. Such careers include non-proliferation and nuclear safeguards, as well as basic and applied research on the detector design, which are among the main areas of employment for our graduates. Given UF's lead status in a new $25 million consortium from the National Nuclear Security Agency (NNSA), having PhD-level coursework in this area is increasingly essential, as additional PhD students in this area will be recruited in the near future.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
- Expand knowledge of the principals of radiation interactions with matter and radiation detection mechanisms.
- Master neutron multiplicity and gamma spectroscopy measurement theory.
- Understand and apply advanced gamma and neutron detection techniques for Nuclear Fuel Cycle measurements.
-

Identify suitable scenario-specific measurement techniques from the full complement of radiological non-destructive assay techniques for the nuclear materials control & accountability (MC&A) field
- Perform experiments using advanced digital radiation detection components.
- Analyze and interpret the data and results of the aforementioned experiments.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Radiation Detection and Measurement, Glenn F. Knoll, 4th Ed., 1999 John Wiley & Sons, Inc., (ISBN 978-0470131480)

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Week 1: Radiation interactions
Week 2: Statistics and errors
Week 3: Portable Gamma Detection, lab 1.
Week 4: Nuclear safeguards detection & principles, PANDA manual, , lab 1 – oral presentation due
Week 5: Digital electronics
Week 6: multi-mode pulse analysis, lab 2,
Week 7: Scintillation materials & detectors lab 2 – formal report due
Week 8: Gamma detection systems & Materials, in-class quiz 1
Week 9: Radiation-chromatic film, lab 3
Week 10: Semiconductor detector materials, lab 3 – oral presentation due
Week 11: Neutron multiplicity mechanisms and math.
Week 12: neutron kinematics, lab 4
Week 13: Distributed/mobile radiation detection
Week 14: Medical radiation detection applications lab 4 – formal report due
Week 15: Recap, Final exam prep Exams

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Lab attendance & participation (1), reports (2), presentations (2)	100 each	50%
Quiz (1)	100 each	20%
Final Exam (1)	100 each	30%

Grading Policy

Percent	Grade	Grade Points
93.0 - 100	A	4.00
90.0 – 92.9	A-	3.67
87.0 – 89.9	B+	3.33
83.0 - 86.9	B	3.00
80.0 – 82.9	B-	2.67
77.0 – 79.9	C+	2.33
73.0 – 76.9	C	2.00
70.0 – 72.9	C-	1.67
67.0 – 69.9	D+	1.33
63.0 – 66.9	D	1.00
60.0 – 62.9	D-	0.67
0.0 – 59.9	E	0.00

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Andreas Enqvist (Primary), James Baciak, Kyle Hartig

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:

Yes

Advanced Radiation Measurement Laboratory
3 credit course
ENU 6xxxC Section # determined by registrar
Class Periods: MWF Period to be determined by registrar
Location: Determined by registrar
Academic Term: Spring 2024

Instructor:
Andreas Enqvist
Enqvist@ufl.edu
352 294 2177
Office Hours: TBD (minimum two hours per week)

Teaching Assistants:
N/A

Course Description
Advanced radiation detection methods and applications in the fields of nuclear safeguards, dosimetry, and nuclear medicine. Coverage of radiological non-destructive assay methods for materials control and accountability. Hands-on experience on state-of-the-art radiation detection instrumentation.

Course Pre-Requisites / Co-Requisites
ENU6051 Radiation Interactions Basics and Applications I

Course Objectives
- Expand knowledge of the principals of radiation interactions with matter and radiation detection mechanisms.
- Master neutron multiplicity and gamma spectroscopy measurement theory.
- Understand and apply advanced gamma and neutron detection techniques for Nuclear Fuel Cycle measurements.
- Identify suitable scenario-specific measurement techniques from the full complement of radiological non-destructive assay techniques for the nuclear materials control & accountability (MC&A) field
- Perform experiments using advanced digital radiation detection components.
- Analyze and interpret the data and results of the aforementioned experiments.

Required Textbooks and Software
- Radiation Detection and Measurement, Glenn F. Knoll, 4th Ed., 1999 John Wiley & Sons, Inc., (ISBN 978-0470131480)

Recommended Materials
- New Techniques for the Detection of Nuclear and Radioactive Agents, Editor: Gul Asiye Aycik, NATO Science for Peace and Security Series B: Physics and Biophysics, (DOI: https://doi.org/10.1007/978-1-4020-9600-6), Springer, (ISBN 978-1-4020-9598-6).
- Passive Nondestructive Assay of Nuclear Materials, March 1991, Editor Doug Reilly, Norbert Ensslin, and Hastings smith, LA_UR_90_0732.
- Panda, addendum, nondestructive assay of holdup, T. Douglas Reilly, Los Alamos National Laboratory, Los Alamos U.S.A., (2007)

Course Schedule
Week 1: Radiation interactions
Week 2: Statistics and errors
Week 3: Portable Gamma Detection, lab 1.
Week 4: Nuclear safeguards detection & principles, PANDA manual, , lab 1 – oral presentation due

Week 5: Digital electronics
Week 6: multi-mode pulse analysis, lab 2,
Week 7: Scintillation materials & detectors lab 2 – formal report due
Week 8: Gamma detection systems & Materials, in-class quiz 1
Week 9: Radiation-chromatic film, lab 3
Week 10: Semiconductor detector materials, lab 3 – oral presentation due
Week 11: Neutron multiplicity mechanisms and math.
Week 12: neutron kinematics, lab 4
Week 13: Distributed/mobile radiation detection
Week 14: Medical radiation detection applications lab 4 – formal report due
Week 15: Recap, Final exam prep Exams

Attendance Policy, Class Expectations, and Make-Up Policy

Students are expected to attend each class period. Periods which may be missed should be brought to the attention of the instructor as far in advance of the class period as possible. In the event of an unexcused absence, it is the student's responsibility to obtain and review the material that was covered during that class period. If a student arrives late or leaves early, he/she is expected to do so with minimum level of disruption to the class in progress. Students are allowed to make up experiments/tests/exams provided that valid medical reason or previously excused reason. Students must perform ALL laboratory experiments in order to receive a passing grade.

Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at: http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Lab attendance & participation (1), reports (2), presentations (2)	100 each	50%
Quiz (1)	100 each	20%
Final Exam (1)	100 each	30%
		100%

Grading Policy

Percent	Grade	Grade Points
93.0 - 100	A	4.00
90.0 – 92.9	A-	3.67
87.0 – 89.9	B+	3.33
83.0 - 86.9	B	3.00
80.0 – 82.9	B-	2.67
77.0 – 79.9	C+	2.33
73.0 – 76.9	C	2.00
70.0 – 72.9	C-	1.67
67.0 – 69.9	D+	1.33
63.0 – 66.9	D	1.00
60.0 – 62.9	D-	0.67
0.0 – 59.9	E	0.00

More information on UF grading policy may be found at: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Lab Attendance & Participation Description: You will be graded on your participation and discussion in the laboratory exercises (4 in total) and the lectures planning out said laboratory exercises. If an in-class discussion or participation assignment is missed, you will be able to make-up these assignments through a Canvas based recorded response to the same or similar topic and/or worksheet (small changes may be necessary due to completion of makeup work being a primarily individual task and in-class activities in this category being a primarily small-group experience). Labs content will be: Lab 1 – mobile radiation detection lab, Lab 2 – Multi-mode detection lab and pulse analysis (CLYC or similar), Lab 3 - Radiation-chromatic film lab, Lab 4 – Neutron kinematics detection lab.

Reports Description: Of the 4 labs two will be required students to complete a formal report for submission and grading (labs 2, 4). Reports can consist of both individual and group efforts that will result in moderate (~5-20 page) reports (individually submitted). Topics of relevance are listed oi the lab description above.

Presentations Description: Of the 4 labs two will be required students to complete a oral class-presentation (& canvas submission) for grading (labs 1, 3). Presentation content can consist of both individual and group efforts that will result in moderate (~10-20 minute) presentations (individually presented). Topics of relevance are listed oi the lab description above.

Students Requiring Accommodations
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

In-Class Recording
Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.
A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code (https://sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment
The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:
• Your academic advisor or Graduate Program Coordinator
• Jennifer Nappo, Director of Human Resources, 352-392-0904, jpennacc@ufl.edu
• Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
• Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy
There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: https://registrar.ufl.edu/ferpa.html

Campus Resources:
Health and Wellness

U Matter, We Care:
Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: https://counseling.ufl.edu, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence
If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

COVID-19

- You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus.
- If you are withheld from campus by the Department of Health through Screen, Test & Protect, you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.
- UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the UF Health Screen, Test & Protect website for more information.
- Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.

Academic Resources

E-learning technical suppor*t*, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling; https://career.ufl.edu.

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus*:* https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/;https://care.dso.ufl.edu.

On-Line Students Complaints*:* http://www.distance.ufl.edu/student-complaint-process.

Course|New for request 18266

Info

Request: ENU 6XXX Power Plant Simulation
Description of request: This is a request to create a new course, ENU 6XXX Power Plant Simulation.

Submitter: Tahara Franklin tfranklin@mse.ufl.edu
Created: 5/31/2023 12:34:44 PM
Form version: 2

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
ENU

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Joint (Ugrad/Grad)

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Power Plant Simulation

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
POWER PLANT SIMULATION

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
Yes

Co-Listing Explanation
*Please detail how coursework differs for undergraduate, graduate, and/or professional students. Additionally, please upload a copy of both the undergraduate and graduate syllabus to the request in .pdf format. *
It is recommended that a Course Differentiation document be provided for review and approval purposes. Please

see the example below.

• Differentiation of Co-Listed Courses - Example

* *
* For more information please see the Co-Listed Graduate Undergraduate Courses Policy.*

Response:
Students enrolled in the graduate course (ENU 6xxx) will have the following requirements imposed on them in addition to those present for the undergraduate course (ENU 4xxx):

- Additional complexity in the form of more involved and additional cases to consider for modeling and simulation problems.
- Graduate students will have additional problems and/or more challenging problems on assigned homework, quizzes, and exams.
- Graduate students will be responsible for learning and implementing advanced simulation and modeling methods to solve problems in assigned projects, homework, and exams.
- Graduate students will be assessed on more demanding performance criteria on individual assignments (i.e., implement advanced modeling methods and professional document preparation) as well as for the overall course outcomes.

All students in the co-listed courses will be held to the same standards regarding attendance, academic honesty, and general class expectations.

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
Instruction and practical experience in the operation and interpretation of results from major nuclear reactor simulation codes such as TRACE, RELAP5, RETRAN, CATHARE, and SAM.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
EML 4140 or ENU 4133 or ENU 4134 or ENU 6135 or ENU 6136 or ENU 5005

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course primarily serves students transitioning to nuclear engineering from an undergraduate degree in physics or another engineering discipline. The course covers the theory and operation of several codes specific to the nuclear industry. Knowledge of these codes is useful for student pursuing employment (usually with a terminal MS) in the nuclear power industry. It will also serve students in the 4/1 program with similar career goals.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
- Develop engineering skills to the construction of best estimate power plant simulations, and interpretation of their results.
- Develop and understanding of the methods used to model two-phase flow and heat conduction in a nuclear reactor.
- Develop a familiarity with basic methods and assumptions used to develop the finite difference formulations of the two fluid Navier-Stokes equations.
- Develop a familiarity with different temporal and spatial differentiation techniques, their impact on numerical solutions and associated error.
- Understand and apply thermodynamics and heat transfer principles to the analysis of nuclear power components and systems subject to performance, economic and safety constraints.
- Demonstrate the ability to use modern engineering tools to design and analyze engineering systems.
- Demonstrate an ability to document the calculations necessary to build a model, mesh sensitivity analysis, steady-state and transient solutions (Project).

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
- J. Watson, Power Plant Simulation, 2023. Electronic textbook provided free of charge to the students by the instructor.

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Week Topics Reading
1 Introduction. Syllabus. ResVault Tutorial.
2 Introduction to SNAP and APTPlot
The Basics of Two-Phase Flow
Basic Model Equations (HEM, Non-Equilibrium Drift Flux, Six Equation Model)
Homework 1 Due Ch. 1-3
3 Introduction to Finite Volume and Finite Difference Methods
Conservative Finite Volume Equations
Error Analysis for Difference Equations
Homework 2 Due Ch. 4
4 Solving the Difference Equations

Verification and Validation
Homework 3 Due Ch. 5-6
5 Heated Flow Exercise
Modeling Pumps
The TEE and it Relatives
Momentum Conservation
Homework 4 Due Ch. 7
6 Building Control Systems
Control Theory in One Hour
Homework 5 Due Ch. 8
7 Introduction to Restart Calculations
Active Control of Pumped Flow
Exam 1
Homework 6 Due
8 Heat Transfer
A Simple Heat Transfer Experiment
Core Heat Conduction Calculation
Homework 7 Due Ch. 9
9 Heat Conduction Limited Boiling Model
Subcooled Boiling
Simple Core Model with TRACE
Homework 8 Due
10 Modeling a Turbine
Parameter Selection with Secant Method
Introduction to Requirements for the Final Project
Homework 9 Due
11 Steam Generator Design and Sizing
Work on Final Project
Homework 10 Due
Project Part 1 Due Ch. 10
12 System Model Development and Best Practices
Work on Final Project
13 Pressurizers
Base Steady-State
Work on Final Project
Exam 2
Project Part 2 Due
14 Vessel and Core Model
Work on Final Project
Project Part 3 Due Ch. 11
15 Transient Simulations
Work on Final Project
Project Part 4 Due

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Assignment	Total Points	Percent of Course Grade
Homework	200	20%
Project (1)	100	10%
Project (2)	100	10%
Project (3)	100	10%
Project (4)	200	20%
Exam 1	150	15%

Exam 2	150	15%
Total	1000	

Grading Policy

Percent	Grade	Grade Points
92 – 100	A	4.00
88 – 91.9	A-	3.67
84 – 87.9	B+	3.33
80 – 83.9	B	3.00
76 – 79.9	B-	2.67
72 – 75.9	C+	2.33
68 – 71.9	C	2.00
65 – 67.9	C-	1.67
62 – 64.9	D+	1.33
59 – 61.9	D	1.00
56 – 58.9	D-	0.67
0 – 55.9	E	0.00

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Associate Professor Justin Watson

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• *https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx*

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.*

* *

Response:
Yes

Power Plant Simulation

ENU 6XXX - Section Determined by Registrar
Class Periods: MWF Period to be determined by registrar
Location: Determined by registrar
Academic Term: Fall 2023

Instructor:
Prof. Justin K. Watson, justin.watson@ufl.edu
Office: 352-273-0241
Office hours: TBD (minimum two hours per week)

No Teaching Assistant

Course Description
Instruction and practical experience in the operation and interpretation of results from major nuclear reactor simulation codes such as TRACE, RELAP5, RETRAN, CATHARE, and SAM.

Statement Related to Policy for Co-Listed Graduate/Undergraduate Courses
Students enrolled in the graduate course (ENU 6xxx) will have the following requirements imposed on them in addition to those present for the undergraduate course (ENU 4xxx):

- Additional complexity in the form of more involved and additional cases to consider for modeling and simulation problems.
- Graduate students will have additional problems and/or more challenging problems on assigned homework, quizzes, and exams.
- Graduate students will be responsible for learning and implementing advanced simulation and modeling methods to solve problems in assigned projects, homework, and exams.
- Graduate students will be assessed on more demanding performance criteria on individual assignments (i.e., implement advanced modeling methods and professional document preparation) as well as for the overall course outcomes.

All students in the co-listed courses will be held to the same standards regarding attendance, academic honesty, and general class expectations.

Course Pre-Requisites
EML 4140 or ENU 4133 or ENU 4134 or ENU 6135 or ENU 6136 or ENU 5005

Course Objectives

- Develop engineering skills to the construction of best estimate power plant simulations, and interpretation of their results.
- Develop and understanding of the methods used to model two-phase flow and heat conduction in a nuclear reactor.
- Develop a familiarity with basic methods and assumptions used to develop the finite difference formulations of the two fluid Navier-Stokes equations.
- Develop a familiarity with different temporal and spatial differentiation techniques, their impact on numerical solutions and associated error.
- Understand and apply thermodynamics and heat transfer principles to the analysis of nuclear power components and systems subject to performance, economic and safety constraints.
- Demonstrate the ability to use modern engineering tools to design and analyze engineering systems.
- Demonstrate an ability to document the calculations necessary to build a model, mesh sensitivity analysis, steady-state and transient solutions (Project).

Materials and Supply Fees

none

Required Textbooks and Software

- J. Watson, Power Plant Simulation, 2023. Text book provided free of charge to the students by the instructor.
- TRACE (USNRC), SNAP and APTPlot (USNRC)

Recommended Materials

- N. Todreas, M. Kazimi, Nuclear Systems I: Thermal Hydraulic Fundamentals, CRC Press, Third Edition, 2021 (978-1138492448).

Other online and print resources will be given out during lecture and on the Canvas site.

Course Schedule

Week	Topics	Reading
1	Introduction. Syllabus. ResVault Tutorial.	
2	Introduction to SNAP and APTPlot The Basics of Two-Phase Flow Basic Model Equations (HEM, Non-Equilibrium Drift Flux, Six Equation Model) Homework 1 Due	Ch. 1-3
3	Introduction to Finite Volume and Finite Difference Methods Conservative Finite Volume Equations Error Analysis for Difference Equations Homework 2 Due	Ch. 4
4	Solving the Difference Equations Verification and Validation Homework 3 Due	Ch. 5-6
5	Heated Flow Exercise Modeling Pumps The TEE and it Relatives Momentum Conservation Homework 4 Due	Ch. 7
6	Building Control Systems Control Theory in One Hour Homework 5 Due	Ch. 8
7	Introduction to Restart Calculations Active Control of Pumped Flow Exam 1 Homework 6 Due	
8	Heat Transfer A Simple Heat Transfer Experiment Core Heat Conduction Calculation Homework 7 Due	Ch. 9

Week	Topics	Reading
9	Heat Conduction Limited Boiling Model Subcooled Boiling Simple Core Model with TRACE Homework 8 Due	
10	Modeling a Turbine Parameter Selection with Secant Method Introduction to Requirements for the Final Project Homework 9 Due	
11	Steam Generator Design and Sizing Work on Final Project Homework 10 Due Project Part 1 Due	Ch. 10
12	System Model Development and Best Practices Work on Final Project	
13	Pressurizers Base Steady-State Work on Final Project Exam 2 Project Part 2 Due	
14	Vessel and Core Model Work on Final Project Project Part 3 Due	Ch. 11
15	Transient Simulations Work on Final Project Project Part 4 Due	

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance Policy. Students should attend each class period. If the student must miss a class for an appropriate reason, it should be brought to the attention of the instructor as far in advance as possible. In the event of an unexcused absence, it is the student's responsibility to obtain and review the material that was covered during that class period.

Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at: http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf

Evaluation of Grades

Assignment	Total Points	Percent of Course Grade
Homework	200	20%
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72 – 75.9	C+	2.33
68 – 71.9	C	2.00
65 – 67.9	C-	1.67
62 – 64.9	D+	1.33
59 – 61.9	D	1.00
56 – 58.9	D-	0.67
0 – 55.9	E	0.00

More information on the UF graduate school grading policy may be found at:
http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf

Project Description: The projects will allow you to apply the modeling techniques you have learned in the course to a full four loop pressurized water reactor and assess how well you have learned the modeling techniques. Modern and industry standard system simulation and modeling codes will be used to accomplish assigned objectives representing real-world nuclear safety analysis problems. Projects will consist of both individual and group efforts that will result in moderate (~10-25 page) reports and a computation input model in the form of a SNAP model editor file. Project 1 will be focused on sizing a steam generator model that will meet prescribed performance requirements. Project 2 will be focused on sizing a core and vessel to supply 4 steam generators heated water based on the performance parameters from Project 1 with given fuel rod, assembly, and core configuration. Project 3 will focus on obtaining a steady-state model that includes all piping, pumps, core and vessel, steam generators, and a pressurizer. Project 4 will focus on performing a transient calculation starting from the steady-state results obtained from Project 3.

Students Requiring Accommodations
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation
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In-Class Recording
Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code (https://sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment
The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator Dr. Justin Watson
- Jennifer Nappo, Director of Human Resources HWCOE, 352-392-0904, jpennacc@ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: https://registrar.ufl.edu/ferpa.html

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: https://counseling.ufl.edu, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

COVID-19

- You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus.
- If you are withheld from campus by the Department of Health through Screen, Test & Protect, you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.
- UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the UF Health Screen, Test & Protect website for more information.
- Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.

Academic Resources

E-learning technical suppor*t*, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling; https://career.ufl.edu.

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus*:* https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/;https://care.dso.ufl.edu.

On-Line Students Complaints*:* http://www.distance.ufl.edu/student-complaint-process.

Power Plant Simulation

ENU 4XXX - Section Determined by Registrar
Class Periods: MWF Period to be determined by registrar
Location: Determined by registrar
Academic Term: Fall 2023

Instructor:
Prof. Justin K. Watson, justin.watson@ufl.edu
Office: 352-273-0241
Office hours: TBD (minimum two hours per week)

No Teaching Assistant

Course Description
Instruction and practical experience in the operation and interpretation of results from major nuclear reactor simulation codes such as TRACE, RELAP5, RETRAN, CATHARE, and SAM.

Statement Related to Policy for Co-Listed Graduate/Undergraduate Courses
Students enrolled in the graduate course (ENU 6xxx) will have the following requirements imposed on them in addition to those present for the undergraduate course (ENU 4xxx):

- Additional complexity in the form of more involved and additional cases to consider for modeling and simulation problems.
- Graduate students will have additional problems and/or more challenging problems on assigned homework, quizzes, and exams.
- Graduate students will be responsible for learning and implementing advanced simulation and modeling methods to solve problems in assigned projects, homework, and exams.
- Graduate students will be assessed on more demanding performance criteria on individual assignments (i.e., implement advanced modeling methods and professional document preparation) as well as for the overall course outcomes.

All students in the co-listed courses will be held to the same standards regarding attendance, academic honesty, and general class expectations.

Course Pre-Requisites / Co-Requisites
ENU 4103 (Pre-Requisite), ENU 4134 (Co-Requisite)

Course Objectives

- Develop engineering skills to the construction of best estimate power plant simulations, and interpretation of their results.
- Develop and understanding of the methods used to model two-phase flow and heat conduction in a nuclear reactor.
- Develop a familiarity with basic methods and assumptions used to develop the finite difference formulations of the two fluid Navier-Stokes equations.
- Develop a familiarity with different temporal and spatial differentiation techniques, their impact on numerical solutions and associated error.
- Understand and apply thermodynamics and heat transfer principles to the analysis of nuclear power components and systems subject to performance, economic and safety constraints.
- Demonstrate the ability to use modern engineering tools to design and analyze engineering systems.
- Demonstrate an ability to document the calculations necessary to build a model, mesh sensitivity analysis, steady-state and transient solutions (Project).

Materials and Supply Fees

None

Relation to Program Outcomes (ABET):

Outcome	Coverage*
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	H
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	
3. An ability to communicate effectively with a range of audiences	M
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	H
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies	H

*Coverage is given as high, medium, or low. An empty box indicates that this outcome is not covered or assessed in the course.

Required Textbooks and Software

- J. Watson, Power Plant Simulation, 2023. Electronic textbook provided free of charge to the students by the instructor.
- TRACE (USNRC), SNAP and APTPlot (USNRC)

Recommended Materials

- N. Todreas, M. Kazimi, Nuclear Systems I: Thermal Hydraulic Fundamentals, CRC Press, Third Edition, 2021 (978-1138492448).

Other online and print resources will be given out during lecture and on the Canvas site.

Course Schedule

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2	Introduction to SNAP and APTPlot The Basics of Two-Phase Flow Basic Model Equations (HEM, Non-Equilibrium Drift Flux, Six Equation Model)	Ch. 1-3

Week	Topics	Reading
	Homework 1 Due	
3	Introduction to Finite Volume and Finite Difference Methods Conservative Finite Volume Equations Error Analysis for Difference Equations Homework 2 Due	Ch. 4
4	Solving the Difference Equations Verification and Validation Homework 3 Due	Ch. 5-6
5	Heated Flow Exercise Modeling Pumps The TEE and it Relatives Momentum Conservation Homework 4 Due	Ch. 7
6	Building Control Systems Control Theory in One Hour Homework 5 Due	Ch. 8
7	Introduction to Restart Calculations Active Control of Pumped Flow Exam 1 Homework 6 Due	
8	Heat Transfer A Simple Heat Transfer Experiment Core Heat Conduction Calculation Homework 7 Due	Ch. 9
9	Heat Conduction Limited Boiling Model Subcooled Boiling Simple Core Model with TRACE Homework 8 Due	
10	Modeling a Turbine Parameter Selection with Secant Method Introduction to Requirements for the Final Project Homework 9 Due	
11	Steam Generator Design and Sizing Work on Final Project Homework 10 Due Project Part 1 Due	Ch. 10

Week	Topics	Reading
12	System Model Development and Best Practices Work on Final Project	
13	Pressurizers Base Steady-State Work on Final Project Exam 2 Project Part 2 Due	
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Attendance Policy, Class Expectations, and Make-Up Policy

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Evaluation of Grades

Assignment	Total Points	Percent of Course Grade
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Grading Policy

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Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

In-Class Recording
Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code (https://sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment
The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:
• Your academic advisor or Graduate Program Coordinator
• Jennifer Nappo, Director of Human Resources, 352-392-0904, jpennacc@ufl.edu
• Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
• Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy
There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: https://registrar.ufl.edu/ferpa.html

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: https://counseling.ufl.edu, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

COVID-19

- You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus.
- If you are withheld from campus by the Department of Health through Screen, Test & Protect, you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.
- UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the UF Health Screen, Test & Protect website for more information.
- Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.

Academic Resources

E-learning technical suppor*t*, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling; https://career.ufl.edu.

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus*:* https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/;https://care.dso.ufl.edu.

On-Line Students Complaints*:* http://www.distance.ufl.edu/student-complaint-process.

Course|New for request 18460

Info

Request: ENY 6941 Practical Work Experience
Description of request: Practical Work Experience
Submitter: Joel H Brendemuhl brendj@ufl.edu
Created: 5/3/2023 3:05:04 PM
Form version: 6

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
ENY

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
941

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate

• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Practical Work Experience

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Practical Work Experience

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus, Off-Campus, Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
Yes

Multiple Offerings in a Single Semester
Can this course be taken by a student multiple times in the same semester?

Response:
No

If repeatable, # total repeatable credit allowed
Indicate the maximum number of total repeatable credits allowed per student.

Response:
6

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
Variable

If variable, # min

Response:
1

If variable, # max

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Supervision of Student Interns

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Internship

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Firsthand, authentic work experience in Entomology or Nematology under the supervision of a faculty member and workplace supervisor. Projects vary depending upon the program requirements.

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
N/A

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:

Firsthand, authentic work experience in Entomology or Nematology under the supervision of a faculty member and workplace supervisor. Projects vary depending upon the program requirements.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
After completing this course, students will be able to:
- Identify problems in the workplace and develop a methodology for addressing the problem.
- Implement knowledge gained from practical work experience.
- Manage an accurate record of work performed.
- Generate a practical work experience report.
- Communicate with professionals in a real-world setting.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
None

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Reflections: (120 points, 20 points each) – all students
Students are required to keep a log of their work experiences. This can be daily or weekly entries. The purpose is to document what the student learned, tasks completed, and reflections about the practical work experience.
- Log 1 reflection and introduction: Students are to introduce themselves, their work, how they found the position and what they hope to learn, summarize their activities so far, and submit as a video or post with photos.
- Log 2 reflection and project brainstorming: Students are to summarize activities since log 1, discuss any problems, situations, topics, or issues they have identified in the workplace or industry that might be interesting to investigate for their project, and submit this as a podcast, blog post, or article.
- Log 3 reflection of degree program: Students are to summarize activities since log 2 and reflect on what aspects of their coursework and/or extracurricular activities are relevant to their work experience.
- Log 4 reflection, project idea summary presentation: Students are to summarize activities since log 3, provide a 250 word or less summary of their project in written or video format.
- Log 5 next steps reflection: Students are to summarize activities since log 4 and reflect on their semester of practical work experience and the remainder of their degree program, especially any thoughts about their projects, and submit as a writeup, or video.
- Log 6 highlight reel and advice to next semester's students: Students are to, in a video or blog post with photos, present a highlight reel overview of their entire practical work experience and conclude with their advice for the students in future semesters.

Personal and supervisor feedback (50 points, 25 points each) – all students
Students are to submit personal and supervisor statements offering input on the practical work experience.

Practical Work Experience Project (60 points) – Graduate students only
Students are to solve a problem or contribute to the solution of a problem, answer a question related to their experience and write up their findings. It may be an article, poster, newsletter, website, extension publication, policy paper, training curriculum or educational materials, etc. The final format should be relevant to their work experience and contribute to their goals for the course and work experience.

- Draft of Presentation (10 points) – Graduate students only

A draft of the project idea should be submitted ahead of time for feedback.

- Final Presentation (50 points) - Graduate students only

Students are to present their practical work experience in 15 minutes via narrated video, or equivalent format. This will include an overview of your workplace, personal experience, and reflection summary.

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Grade	Percentages
A	93 – 100
A-	90 – 92.9
B+	87 – 89.9
B	83 – 86.9
B-	80 - 82.9
C+	77 - 79.9
C	73 - 76.9
C-	70 - 72.9
D+	67 - 69.9
D	63 - 66.9
D-	60 - 62.9
E	<59.9 and below

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
To be determined

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

PRACTICAL WORK EXPERIENCE

ENY 6941
CREDITS 1-3

COORDINATOR INFORMATION

Certificate Coordinator
Depends on the certificate program.

Contact Information & Hours
Depends on the certificate program.

Workplace Supervisor
To be determined.

Contact Information & Hours
To be determined.

GENERAL INFORMATION

Course Description
Firsthand, authentic work experience in Entomology or Nematology under the supervision of a faculty member and workplace supervisor. Projects vary depending upon the program requirements.

Learning Goals and Objectives
After completing this course, students will be able to:

- Identify problems in the workplace and develop a methodology for addressing the problem.
- Implement knowledge gained from practical work experience.
- Manage an accurate record of work performed.
- Generate a practical work experience report.
- Communicate with professionals in a real-world setting.

Pre-requisite and Co-requisite
- None

Course Website
The course content will be available through the course website in Canvas at https://elearning.ufl.edu/. Each week, students are required to view and submit the assignments prior to the assigned due dates to complete the course requirements.

Textbooks/Required Materials
There is no required text in this course. Students should consult in advance with their certificate coordinator/workplace supervisor on the necessity of owning laboratory notebooks or gadgets such as a calculator, laptop computer, etc. to perform their project

tasks.
Recommended reading includes the following or comparable works on the same topics:

- Responsible Conduct of Research, available online at https://research.ufl.edu/rcr/rcr-training/citi-rcr-training/.
- Avoiding Plagiarism Guide, George A. Smathers Marston Science Library, available online at https://guides.uflib.ufl.edu/copyright/plagiarism.
- The Craft of Scientific Writing, 3rd Edition, by Michael Alley (1996), Springer-Verlag, NY, NY.
- The Craft of Scientific Presentations: Critical Steps to Succeed and Critical Errors to Avoid, by Michael Alley (2002), Springer-Verlag, NY, NY.
- Preparing for your internship, Virginia Tech Career and Professional Development. https://career.vt.edu/experience/Internships/prepare.html
- Intern Tips for Students: A Guide to Making the Most of Your Internship Experience. https://www.up.edu/career/handouts/intern-tips-for-students_accessible.pdf
- How to Conduct a Successful Internship Experience. https://newark.osu.edu/assets/newark/uploads/Student%20Life/student_internship_handbook.pdf

Where can I work?

There are diverse opportunities for students for practical work experience. Students are encouraged to consult their certificate coordinator for potential opportunities. Students are also encouraged to look for these opportunities and once students find these opportunities, they should consult the certificate coordinator for approval. The lists and resources of opportunities and how to search will be posted to Canvas. However, work experiences with family members as employees, supervisors, or business owners will not be approved. Paid and unpaid work experience are allowed.

How much work do I need?

Students conducting practical work experience are expected to exercise a significant degree of autonomy in their work, completing tasks with relatively little direct oversight from their workplace supervisor. Nevertheless, the student should dedicate a minimum number of hours to their practical work experience that is consistent with the total credit hours sought for the experience. Besides the minimum expectations outlined in this section of this syllabus, the certificate coordinator/workplace supervisor may also have additional expectations for participation, including attendance at group meetings, workplace meetings, etc.

1-3 Credit Hours: Students are expected to devote a minimum of three hours per week of actual work in this class for each credit in which they are enrolled (3 credits = 9 hours of work). Students can enroll in this course multiple times during their study at the University of Florida if necessary. Students should carefully discuss with their certificate coordinator/workplace supervisor about the time expectations for completion of the requirements of the practical work experience, and these expectations should be clearly articulated in the intake Form.

What kind of experience do I choose?

Students are advised to choose an experience in which they will learn the most. Since each student's programs, interests and goals are unique, students can plan their own practical work experience. Students are encouraged to talk with peers, faculty, mentors, explore extracurricular and in-class activities, reflect on their education and previous employment along with their future goals for ideas and information as they develop a plan. Tips and resources will be available on Canvas.

What will I be doing?

Each student's daily activities will depend entirely on where the student works. As part of the class, students will use Canvas to post their assignments.

How do I access the course?

This certificate is entirely online. Students will need a computer, tablet, or phone with internet access in order to submit assessment requirements in Canvas. Students will access the course on Canvas via the UF e-learning platform by logging in with their Gatorlink credentials. All class resources, videos, readings assignments, grades, and the current schedule and syllabus can be found on the Canvas site. Students will also need to find a practical work experience ahead of time, arrange for their personal living arrangements, logistics, and any required materials for the position. Students are required to submit an approval form before they start working and register for course credit. The approval form can be obtained on Canvas or by contacting the certificate coordinator.

What are the requirements for entry?

Students must be registered for the certificate in order to undertake practical work experience.

What are the requirements for completion?

Students are to complete the assignments as they work through the semester. Even if a student registers for a different semester than the one in which they work for the practical work experience, or if they complete their practical work experience requirement at different locations or over multiple semesters, they can still access Canvas throughout their program to fulfill their practical work experience requirements. Students may also choose to complete the assessments as they work over multiple semesters, and then take their entire experience into consideration for their project and presentation in their final semester of practical work experience.

Assignments

All assignments will be due by 11:59 pm on Fridays unless otherwise noted. It is in the student's best interest to keep up with the sequence of assignments as listed here, as one assignment builds into the next and all of them will help with the final project and presentation.

Reflections: (120 points, 20 points each)

Students are required to keep a log of their work experiences. This can be daily or weekly entries. The purpose is to document what the student learned, tasks completed, and reflections about the practical work experience.

- *Log 1 reflection and introduction*: Students are to introduce themselves, their work, how they found the position and what they hope to learn, summarize their activities so far, and submit as a video or post with photos.
- *Log 2 reflection and project brainstorming*: Students are to summarize activities since log 1, discuss any problems, situations, topics, or issues they have identified in the workplace or industry that might be interesting to investigate for their project, and submit this as a podcast, blog post, or article.
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- *Log 6 highlight reel and advice to next semester's students:* Students are to, in a video or blog post with photos, present a highlight reel overview of their entire practical work experience and conclude with their advice for the students in future semesters.

Personal and supervisor feedback (50 points, 25 points each)
Students are to submit personal and supervisor statements offering input on the practical work experience.

Practical Work Experience Project (60 points)
Students are to solve a problem or contribute to the solution of a problem, answer a question related to their experience and write up their findings. It may be an article, poster, newsletter, website, extension publication, policy paper, training curriculum or educational materials, etc. The final format should be relevant to their work experience and contribute to their goals for the course and work experience.

- ***Draft of Presentation (10 points)***
  A draft of the project idea should be submitted ahead of time for feedback.
- ***Final Presentation (50 points)***
  Students are to present their practical work experience in 15 minutes via narrated video, or equivalent format. This will include an overview of your workplace, personal experience, and reflection summary.

GRADING POLICIES

The course grade is based on performance on the assignments. The final grade points will be converted to percentages. The final grade will be assigned as follows:

Course Requirements		Point Value	Total Grade Points
Discussions		20 each	120
Personal feedback		25	25
Supervisor feedback		25	25
Practical work experience project	Draft	10	10
	Final report	50	50
Total			**230**

Grading Scale

Grade	Percentages
A	93 – 100
A-	90 – 92.9
B+	87 – 89.9
B	83 – 86.9
B-	80 - 82.9
C+	77 - 79.9
C	73 - 76.9
C-	70 - 72.9
D+	67 - 69.9
D	63 - 66.9
D-	60 - 62.9
E	<59.9 and below

UNIVERSITY OF FLORIDA POLICIES AND ASSISTANCE

Attendance and Make-Up Work

Students are expected to attend classes. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation

period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at: https://gatorevals.aa.ufl.edu/public-results/.

Grades and Grade Points

For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation 0001 Reid Hall, 352-392-8565, https://disability.ufl.edu/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

• University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu
*Counseling Services Groups and Workshops Outreach and Consultation Self-Help Library Wellness Coaching
• U Matter We Care, www.umatter.ufl.edu/
• Career Connections Center, First Floor JWRU, 392-1601, https://career.ufl.edu/.
• Student Success Initiative, http://studentsuccess.ufl.edu.

Student Complaints:
• Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/.
• Online Course: https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complain

Course|New for request 17550

Info

Request: FOR 6XXX Management and Restoration of Invaded Ecosystems
Description of request: Creation of a new graduate course
Submitter: Jennifer Vogel alpha32605@ufl.edu
Created: 2/1/2023 2:11:20 PM
Form version: 4

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
FOR

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Advanced

• 1000 level = Introductory undergraduate

• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Management and Restoration of Invaded Ecosystems

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Mgmt/Restor Invaded Ecosystems

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective

term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
This online course begins with an overview of the ecological basis for plant invasions in terrestrial ecosystems, with emphasis on applications for restoration and management of invaded ecosystems. Methods and techniques for prediction, prevention, control, and restoration will be discussed, and plant invasions from Florida and around the U.S. will be used as case studies. This course focuses heavily on applying scientific theory and research to on-the-ground management.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:

na

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
na

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
The course covers management tools and techniques for invasion ecology with an emphasis on plant invasions and natural ecosystems. These topics are pertinent to our graduate degree-seeking and certificate-seeking students interested in ecosystem restoration.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
By the end of this course, students should be able to:

- Critically assess scientific literature and implications of results for practical management.
- Evaluate invasive species documented on a site and identify potential impacts.
- Describe the desired future ecosystem conditions incorporating available resources
- Identify infestations that impact the current condition.
- Incorporate knowledge of invasion theory and mechanisms to design and prioritize treatments in an annual and/or multi-year adaptive management plan.
- Propose a monitoring scheme to support an adaptive management approach.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Required Text
1. Invasion Ecology 2nd ed. JL Lockwood, MF Hoopes and MP Marchetti. 2013. Blackwell Publishing, 303 p. 978-1444333657

Readings
I. Introduction (Why Invasive Species Are a Problem)
Module 1: Introduction
A. Required Text: Lockwood et al, Chapter 1, An Introduction to Invasion Ecology
B. Article: van Kleunen, Mark, Oliver Bossdorf, and Wayne Dawson. "The ecology and evolution of alien plants." Annual Review of Ecology, Evolution, and Systematics 0 (2018).
C. Article: Ricciardi, Anthony, and Rachael Ryan. "The exponential growth of invasive species denialism." Biological Invasions 20, no. 3 (2018): 549-553.
D. Article: Sagoff, Mark. "Invasive species denialism: a reply to Ricciardi and Ryan." Biological Invasions (2018): 1-7.

Module 2: Critically Evaluating Invasive Species Literature
A. Article: Frazier, Jesse E., Ajay Sharma, Daniel J. Johnson, Michael G. Andreu, and Kimberly K. Bohn. "Group selection silviculture for converting pine plantations to uneven-aged stands." Forest Ecology and Management (2020): 118729.

Module 3: Impacts to Individuals, Species and Communities
A. Required Text: Lockwood et al, Chapter 9 through page 233, Ecological Impacts of Invasive Species
B. Article: Liebhold, Andrew M., Eckehard G. Brockerhoff, Susan Kalisz, Martin A. Nuñez, David A. Wardle, and Michael J. Wingfield. "Biological invasions in forest ecosystems." Biological invasions 19, no. 11 (2017): 3437-3458.
C. Student-led article: Tarasi, Dennis D., and Robert K. Peet. "The native-exotic species richness relationship varies with spatial grain of measurement and environmental conditions." Ecology 98, no. 12 (2017): 3086-3095.

Module 4: Impacts to Ecological Processes and Economics
A. Required Text: Lockwood et al, finish Chapter 9, Ecological Impacts of Invasive Species
B. Article: Pimentel, David, Rodolfo Zuniga, and Doug Morrison. "Update on the environmental and economic costs associated with alien-invasive species in the United States." Ecological economics 52, no. 3 (2005): 273-288.
C. Student-led article: Januchowski-Hartley, Stephanie R., Vanessa M. Adams, and Virgilio Hermoso. "The need for spatially explicit quantification of benefits in invasive-species management." Conservation Biology 32, no. 2 (2018)

II. Invasion Theory (How They Become and Cause These Problems)

Module 5: Dispersion and the Invasion Process
A. Required text Lockwood et al. Chapters 2, Transport Vectors and Pathways; and Chapter 4, Propagules.
B. Article: Harvey, Rebecca G., and Frank J. Mazzotti. "The invasion curve: A tool for understanding invasive species management in south Florida." IFAS Publication Number WEC347. Gainesville, FL: University of Florida. edis. ifas. ufl. edu/uw392(2014).
C. Student-led article: Gordon, Doria R., Deah Lieurance, and S. Luke Flory. "Predicted versus actual invasiveness of climbing vines in Florida." Biological Invasions 19, no. 8 (2017): 2375-2384.
D. Optional text: Lockwood et al. Chapter 8, Ecological Processes and the Spread of Non-native Species

Module 6: Disturbances and How They Impact Invasions
A. Required Text: Lockwood et al, Chapter 5, Disturbance; and Chapter 6, Establishment Success: The Influence of Biotic Interactions

B. Article: Xiao, Sa, Ragan M. Callaway, Ryan Graebner, Jose L. Hierro, and Daniel Montesinos. "Modeling the relative importance of ecological factors in exotic invasion: The origin of competitors matters, but disturbance in the non-native range tips the balance." Ecological modelling 335 (2016): 39- 47.
C. Student-led article: Pearson, Dean E., Yvette K. Ortega, Diego Villarreal, Ylva Lekberg, Marina C. Cock, Özkan Eren, and José L. Hierro. "The fluctuating resource hypothesis explains invasibility, but not exotic advantage following disturbance." Ecology 99, no. 6 (2018): 1296-1305.

III. Management Planning (How to Limit or Remove These Problems)

Module 7: Management Planning- Assessment (What Do You Have?)
A. Article: Gordon, Doria R., S. Luke Flory, Deah Lieurance, Philip E. Hulme, Chris Buddenhagen, Barney Caton, Paul D. Champion et al. "Weed risk assessments are an effective component of invasion risk management." Invasive Plant Science and Management 9, no. 1 (2016): 81-83.
B. Article: Lieurance, D. "Protocols for testing the invasiveness of plants in Florida." In Proceedings of the 2015 Annual Meeting of the International Plant Propagators' Society 1140, pp. 279-284. 2015.
C. Optional text: Lockwood et al. Chapter 12, Predicting and Preventing Invasion

Module 8: Management Planning- Assessment (Biology and Control)
A. Required Text: Chapter 13, Lockwood et al. Ecological Processes and the Spread of Non-native Species

Module 9:
A. Student-led article: Pecl, Gretta T., Miguel B. Araújo, Johann D. Bell, Julia Blanchard, Timothy C. Bonebrake, I-Ching Chen, Timothy D. Clark et al. "Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being." Science 355, no. 6332 (2017).
B. Optional article: Beaury, Evelyn M., Emily J. Fusco, Michelle R. Jackson, Brittany B. Laginhas, Toni Lyn Morelli, Jenica M. Allen, Valerie J. Pasquarella, and Bethany A. Bradley. "Incorporating climate change into invasive species management: insights from managers." Biological Invasions 22, no. 2 (2020): 233-252.

Module 10: Management Planning- Desired Future Conditions (What Do You Want?)
A. Article: Messier, Christian, Klaus Puettmann, Robin Chazdon, K. P. Andersson, Virginie A. Angers,
L. Brotons, E. Filotas, Rebecca Tittler, Lael Parrott, and Simon A. Levin. "From management to stewardship: viewing forests as complex adaptive systems in an uncertain world." Conservation Letters 8, no. 5 (2015): 368-377.
B. Optional text: Lockwood et al. Chapter 14, Global Climate Change and Invasive Species

Module 11:
A. Online readings posted on Canvas
B. Student-led article: Wallingford, Piper D., Toni Lyn Morelli, Jenica M. Allen, Evelyn M. Beaury, Dana
M. Blumenthal, Bethany A. Bradley, Jeffrey S. Dukes et al. "Adjusting the lens of invasion biology to focus on the impacts of climate-driven range shifts." Nature Climate Change (2020): 1-8.

Module 12: Management Planning- Building a Treatment Plan (How Do You Get There?)
A. Article: Stone, Deborah, and Michael Andreu. "Direct Application of Invasive Species Prioritization: The Spatial Invasive Infestation and Priority Analysis Model." Ecological Restoration 35, no. 3 (2017): 255-265.

B. Student-led article: Baker, Christopher M. "Target the source: optimal spatiotemporal resource allocation for invasive species control." Conservation Letters 10, no. 1 (2017): 41-48.
C. Student-led article: Moody, Michael E., and Richard N. Mack. "Controlling the spread of plant

invasions: the importance of nascent foci." Journal of Applied Ecology (1988): 1009-1021.

Module 13: Management Planning- Finalizing and Implementing Your Management Plan (Adaptive Management)
A. Article: Prior, Kirsten M., Damian C. Adams, Kier D. Klepzig, and Jiri Hulcr. "When does invasive species removal lead to ecological recovery? Implications for management success." Biological invasions 20, no. 2 (2018): 267-283.

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
I. Introduction (Why Invasive Species Are a Problem)

Module 1: Introduction

Quiz

Discussion - Invasive Species Denialism?

Module 2: Critically Evaluating Invasive Species Literature

Discussion - Critical Evaluation of Publications

Module 3: Impacts to Individuals, Species and Communities

Quiz

Student-led discussion

Module 4: Impacts to Ecological Processes and Economics

Quiz

Student-led discussion

II. Invasion Theory (How They Become and Cause These Problems)

Module 5: Dispersion and the Invasion Process

Quiz

Student-led discussion

Module 6: Disturbances and How They Impact Invasions

Quiz

Student-led discussion

III. Management Planning (How to Limit or Remove These Problems)

Module 7: Management Planning- Assessment (What Do You Have?)

Interrupted Case Study 1 discussion

Module 8: Management Planning- Assessment (Biology and Control)

Interrupted Case Study 2 discussion

Homework Site Selection

Module 9: Site Assessment

Student-led discussion

Homework Site Assessment

Module 10: Management Planning- Desired Future Conditions (What Do You Want?)

Interrupted Case Study 3 discussion

Module 11: Desired Future Condition

"The Game"

Peer Review of Site Assessment homework

Student-led discussion

Module 12: Management Planning- Building a Treatment Plan (How Do You Get There?)

Interrupted Case Study 4 discussion

Module 13: Management Planning- Finalizing and Implementing Your Management Plan (Adaptive Management)

Interrupted Case Study 5 discussion

Module 14: Final Papers

Student led discussion of final papers

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
A (93-100), A- (90-92.99), B+ (86-89.99), B (83-85.99), B- (80-82.99), C+(76-79.99), C (73-75.99), C-(70-72.99), D+(66-69.99), D (63-65.99), D- (60-62.99), E (<60)

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Michael G Andreu

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

Management and Restoration of Invaded Ecosystems

FOR 6xxx (3 credits) online
Spring 2023

Course Description

This online course begins with an overview of the ecological basis for plant invasions in terrestrial ecosystems, with primary emphasis on applications for restoration and management of invaded ecosystems. Methods and techniques for prediction, prevention, control, and restoration will be discussed, and plant invasions from Florida and around the U.S. will be used as case studies. This course focuses heavily on applying scientific theory and research to on-the-ground management.

Format and Audience

This course will follow an online asynchronous discussion format, with recorded lectures and relevant assigned readings from textbooks and primary literature. The course is graduate level and is designed for studentswith a strong interest and background in ecology and applied plant science and an interest in invasive species ecology and management.

Pre-Requisites

No formal pre-requisites, but coursework in biology, ecology, or other relevant plant science courses is strongly recommended.

Instructor

Michael G. Andreu, Ph.D
Associate Professor- Forest Systems
mandreu@ufl.edu

TAs

Deb Stone	Elysia Lewis	Johanna Depenthal	Tracy Muzyczka
Ph.D. Candidate	M.S. Student	Ph.D. Candidate	M.S. Student
debitharp@ufl.edu	elysialewis@ufl.edu	jdepenthal@ufl.edu	tracymuzyczka@ufl.edu

Office Hours

Tuesdays 12:00 (noon) to 1:30 p.m. (Eastern time)
Thursdays 5:30 p.m. to 7:00 p.m. (Eastern time)

Learning Outcomes

At the end of this course, each student will:

- Critically assess scientific literature and implications of results for practicalmanagement.
- Evaluate invasive species documented on a site and identify potential impacts.
- Describe the desired future ecosystem conditions incorporating available resources
- Identify infestations that impact the current condition.
- Incorporate knowledge of invasion theory and mechanisms to design and prioritize treatments inan annual and/or multi-year adaptive management plan.
- Propose a monitoring scheme to support an adaptive management approach.

Required Text

1. Invasion Ecology 2nd ed. JL Lockwood, MF Hoopes and MP Marchetti. 2013. Blackwell Publishing,303 p. 978-1444333657

Class Format

The course will consist of one-week modules focused on specific topics related to invasion ecology,

management, and restoration. The format will consist primarily of readings and discussion threads. To accommodate students with full-time employment, modules will follow a Friday-Monday (11 days) schedule to allow time for adequate discussion over the weekend period as needed. For each module in the first half of the semester, students will be assigned several readings, including chapter(s) from one of the required texts, relevant peer-reviewed journal articles, or other materials. A short (approximately 20minute) summary lecture to review core lessons from the general topic will be provided by the instructor.The lecture will be posted each Friday. Throughout the semester, some additional guest lectures and video podcasts will be provided as a supplement. The first half of the semester is designed to have less instructor interaction than the second half of the semester. However, do not hesitate to reach out to the instructors with any questions or for any needed help on the course materials or structure.

The second half of the semester will take an interrupted case study format, with several relevant, peer-reviewed journal articles to introduce the general topic, plus a short description of that module's sectionof the case study and relevant questions with a discussion thread.

A discussion thread will also be posted on Friday. Eight discussions will be led by the instructors (focusing on the module topic) and seven discussions will be led by a group of students (focusing on a single journal article). These additional readings will build on topics introduced in the lectures and/or present a case study of relevant invasive plant ecology and management. All students are expected to readthese articles and participate in the additional discussion. Comments/responses from the students can be posted until Sunday (10 days) evening.

NOTE: *Discussion questions are intended to stimulate conversation and debate and encourage you to explore more deeply the topics covered in the week's readings. In many cases, there will not be a clear "right" or "wrong" answer. In some cases, the questions will be contextual (e.g., "Describe an example of a species that exhibits invasive traits"), other questions will be more conceptual, and some questions may ask to merely express an opinion. Towards the end of the semester the discussion threadswill be used to practice developing adaptive management recommendations for an invaded ecosystem.*

Late policy for assignments and attendance: "Attendance" for this course will be based on participation in the discussion forum. Written assignments and projects are due electronically by noon (Eastern time) on the due date and unexcused late work will lose 10% of the grade for each day they are late (weekends count too). In cases of extended illness or emergencies, arrangements to turn in late exams or other written assignments must be made with the instructor prior to the due date. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://gradcatalog.ufl.edu/graduate/regulations/.

Assignments and Evaluation of Student Learning

Discussion thread participation

Students will be expected to contribute two unique comments and/or responses to other students (typically several sentences to about a paragraph in length) which demonstrate thought and/or researchinto the topic area. A citation relevant to at least one of your comments is required. Note that you arewelcome to post and respond more than the minimum.

Rubric:
0 Points: No response
.5 Points: only one comment that demonstrates thought and/or research
.8 Points: 2 comments, no citation or 1 comment with citation
1.0 Points: 2 comments that demonstrate thought and/or research including relevant citation.

Student-led Discussion thread

For the student-led discussions, the discussion leader(s) will be expected to read the article (and supporting literature, as necessary) and lead a discussion on the most important topics covered in it. Thiswill involve providing a brief 1-2 paragraph summary, posing at least 3 questions for the other students, and *facilitating* a productive online dialogue between students. The discussion leader(s) should initiate the discussion no later than Thursday at noon (Eastern).

Rubric for group leaders:
While it is important that all group members contribute to the 1) development of questions, 2) writing of the article summary, 3) moderation of the discussion, and 4) writing of the end-of-discussion summary; all members do not have to do all four things equally but should be significant contributors to at least 2 of the four areas.

Individual score: List individual contribution to each of the four areas: 15 points.

Group score: Group will collectively be scored on the for the overall week: 12 pts
Summary of papers was insightful, succinct yet complete: Y/N
The discussion prompt questions stimulated thoughtful discussion: Y/N
Moderators encouraged cogent responses: Y/N
Summary of discussion was insightful, succinct yet complete: Y/N

Management Plan Project
You will develop and present an actionable management plan for restoring and managing a particular property with non-native species invasions. You are encouraged to choose a property that you are familiar with and currently working on, or you can work with the instructors to find a suitable scenario relative to your locale. Your management plan should provide an overview of the non-native species of concern including mechanisms for dispersal into your site and ecosystem impacts, followed by a feasible annual work plan for control of the current invasion, restoration of ecological characteristics (e.g., species composition, structure, soils/hydrology, or other ecological processes) following control, and monitoring and prevention of new invasions. Prioritization of actions should also be discussed.

Two homework assignments during the second half of the semester will build up to the final paper,allowing for instructor input and increased application of knowledge by the student.

As part of your grade, you will also be asked to peer review one plan presented by your fellow students. More detailed instructions on this assignment and directions for uploading your materials will be provided in the Assignments tab.

The grading breakdown will be as follows:

15 points	Participation in weekly discussion sessions (1 point each *x* 15 discussions)
27 points	Presentation of one weekly article and moderation of discussion (Group)
10 points	Quizzes (2 points x 5 quizzes)
20 points	Homework assignments leading to management plan (2 x 10 points each)
20 points	Management plan project
8 points	Peer review of student management plan

Total: 100 points

Grading Scale
Letter grades will be assigned as follows: A (93-100), A^- (90-92.99), B^+ (86-89.99), B (83-85.99), B^- (80-82.99),C^+(76-79.99), C (73-75.99), C^-(70-72.99), D^+(66-69.99), D (63-65.99), D- (60-62.99), E (<60)

For information on current UF policies for assigning grade points, see
https://gradcatalog.ufl.edu/graduate/regulations/

Schedule of Class Topics and Readings

Introduction (Why Invasive Species Are a Problem)
Module 1: Introduction
Required Text: Lockwood et al, Chapter 1, An Introduction to Invasion Ecology
Article: van Kleunen, Mark, Oliver Bossdorf, and Wayne Dawson. "The ecology and evolution ofalien plants." *Annual Review of Ecology, Evolution, and Systematics* 0 (2018).
Article: Ricciardi, Anthony, and Rachael Ryan. "The exponential growth of invasive speciesdenialism." *Biological Invasions* 20, no. 3 (2018): 549-553.
Article: Sagoff, Mark. "Invasive species denialism: a reply to Ricciardi and Ryan." *BiologicalInvasions* (2018): 1-7.

Module 2: Critically Evaluating Invasive Species Literature
Article: Frazier, Jesse E., Ajay Sharma, Daniel J. Johnson, Michael G. Andreu, and Kimberly K.Bohn. "Group selection silviculture for converting pine plantations to uneven-aged stands." *Forest Ecology and Management* (2020): 118729.
Optional Zoom Meet and Greet and Q&A

Module 3: Impacts to Individuals, Species and Communities
Required Text: Lockwood et al, Chapter 9 through page 233, Ecological Impacts of Invasive Species
Article: Liebhold, Andrew M., Eckehard G. Brockerhoff, Susan Kalisz, Martin A. Nuñez, David A.Wardle, and Michael J. Wingfield. "Biological invasions in forest ecosystems." Biological invasions 19,no. 11 (2017): 3437-3458.
Student-led *article*: Tarasi, Dennis D., and Robert K. Peet. "The native-exotic species richness relationship varies with spatial grain of measurement and environmental conditions." Ecology 98, no. 12(2017): 3086-3095.

Module 4: Impacts to Ecological Processes and Economics
Required Text: Lockwood et al, finish Chapter 9, Ecological Impacts of Invasive Species
Article: Pimentel, David, Rodolfo Zuniga, and Doug Morrison. "Update on the environmental and economic costs associated with alien-invasive species in the United States." Ecological economics 52, no.3 (2005): 273-288.
Student-led *article*: Januchowski-Hartley, Stephanie R., Vanessa M. Adams, and Virgilio Hermoso. "The need for spatially explicit quantification of benefits in invasive-species management." ConservationBiology 32, no. 2 (2018)

Invasion Theory (How They Become and Cause These Problems)

Module 5: Dispersion and the Invasion Process
Required text Lockwood et al. Chapters 2, Transport Vectors and Pathways; and Chapter 4,Propagules.
Article: Harvey, Rebecca G., and Frank J. Mazzotti. "The invasion curve: A tool for understandinginvasive species management in south Florida." IFAS Publication Number WEC347. Gainesville, FL: University of Florida. edis. ifas. ufl. edu/uw392(2014).
Student-led *article:* Gordon, Doria R., Deah Lieurance, and S. Luke Flory. "Predicted versus actual invasiveness of climbing vines in Florida." Biological Invasions 19, no. 8 (2017): 2375-2384.
Optional text: Lockwood et al. Chapter 8, Ecological Processes and the Spread of Non-native Species

Module 6: Disturbances and How They Impact Invasions
Required Text: Lockwood et al, Chapter 5, Disturbance; and Chapter 6, Establishment Success: The Influence of Biotic Interactions

Article: Xiao, Sa, Ragan M. Callaway, Ryan Graebner, Jose L. Hierro, and Daniel Montesinos. "Modeling the relative importance of ecological factors in exotic invasion: The origin of competitors matters, but disturbance in the non-native range tips the balance." Ecological modelling 335 (2016): 39-47.
Student-led *article*: Pearson, Dean E., Yvette K. Ortega, Diego Villarreal, Ylva Lekberg, Marina C. Cock, Özkan Eren, and José L. Hierro. "The fluctuating resource hypothesis explains invasibility, but notexotic advantage following disturbance." Ecology 99, no. 6 (2018): 1296-1305.

Management Planning (How to Limit or Remove These Problems)

Module 7: Management Planning- Assessment (What Do You Have?)
Article: Gordon, Doria R., S. Luke Flory, Deah Lieurance, Philip E. Hulme, Chris Buddenhagen, Barney Caton, Paul D. Champion et al. "Weed risk assessments are an effective component of invasionrisk management." *Invasive Plant Science and Management* 9, no. 1 (2016): 81-83.
Article: Lieurance, D. "Protocols for testing the invasiveness of plants in Florida." In *Proceedings ofthe 2015 Annual Meeting of the International Plant Propagators' Society 1140*, pp. 279-284. 2015.
Optional text: Lockwood et al. Chapter 12, Predicting and Preventing Invasion

Module 8: Management Planning- Assessment (Biology and Control)
A. *Required Text*: Chapter 13, Lockwood et al. Ecological Processes and the Spread of Non-nativeSpecies

Module 9: Discussion, HOMEWORK ASSIGNMENT
Student-led *article*: Pecl, Gretta T., Miguel B. Araújo, Johann D. Bell, Julia Blanchard, Timothy C. Bonebrake, I-Ching Chen, Timothy D. Clark et al. "Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being." *Science* 355, no. 6332 (2017).
B. *Optional article*: Beaury, Evelyn M., Emily J. Fusco, Michelle R. Jackson, Brittany B. Laginhas, Toni Lyn Morelli, Jenica M. Allen, Valerie J. Pasquarella, and Bethany A. Bradley. "Incorporating climate change into invasive species management: insights from managers." *Biological Invasions* 22, no. 2 (2020): 233-252.

Module 10: Management Planning- Desired Future Conditions (What Do You Want?)
A. A*rticle:* Messier, Christian, Klaus Puettmann, Robin Chazdon, K. P. Andersson, Virginie A. Angers, L. Brotons, E. Filotas, Rebecca Tittler, Lael Parrott, and Simon A. Levin. "From management to stewardship: viewing forests as complex adaptive systems in an uncertain world." *Conservation Letters* 8, no. 5 (2015): 368-377.
B. *Optional text*: Lockwood et al. Chapter 14, Global Climate Change and Invasive Species

Module 11: Peer Review, HOMEWORK ASSIGNMENT
Online readings posted on Canvas
Student-led *article*: Wallingford, Piper D., Toni Lyn Morelli, Jenica M. Allen, Evelyn M. Beaury, Dana M. Blumenthal, Bethany A. Bradley, Jeffrey S. Dukes et al. "Adjusting the lens of invasion biology tofocus on the impacts of climate-driven range shifts." *Nature Climate Change* (2020): 1-8.

Module 12: Management Planning- Building a Treatment Plan (How Do You Get There?)
Article: Stone, Deborah, and Michael Andreu. "Direct Application of Invasive Species Prioritization:The Spatial Invasive Infestation and Priority Analysis Model." *Ecological Restoration* 35, no. 3 (2017): 255-265.

Module 13: Management Planning- Finalizing and Implementing Your Management Plan(Adaptive Management)
Article: Prior, Kirsten M., Damian C. Adams, Kier D. Klepzig, and Jiri Hulcr. "When does invasivespecies removal lead to ecological recovery? Implications for management success." *Biological invasions* 20, no. 2 (2018): 267-283.
Optional article: Stone, Deborah, and Michael Andreu. "Fire and Invasive Plant Interactions" University of Florida IFAS Extension FOR 386 (2022) 13 pp. https://doi.org/10.32473/edis-FR457-2022

Module 14: FINAL PROJECT (See CANVAS for due dates)

Student-led *article:* Baker, Christopher M. "Target the source: optimal spatiotemporal resourceallocation for invasive species control." *Conservation Letters* 10, no. 1 (2017): 41-48.
Student-led *article:* Moody, Michael E., and Richard N. Mack. "Controlling the spread of plantinvasions: the importance of nascent foci." *Journal of Applied Ecology* (1988): 1009-1021.

RESOURCES TO HELP YOU SUCCEED

Course Website
The course website can be accessed on Canvas using your myUFL key. The course site will contain readings, announcements, helpful links, and important course information, as well an online grade book.All assignments should be submitted electronically through Canvas unless otherwise notes by your instructors.

Software Use
All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Academic Civility
Meaningful and constructive dialogue is encouraged in this class and requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. Respect for individual differencesand alternative viewpoints will be maintained in this class. One's words and use of language should be temperate and within acceptable bounds of civility and decency. Friendly persuasion wins friends and influences people. Aggressively arguing your point often does the opposite and stops dialogue.

Online Course Evaluation Process
Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at: https://gatorevals.aa.ufl.edu/public-results/.

Academic Honesty
As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment*."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated.
Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code.

Services for Students with Disabilities
The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, https://disability.ufl.edu/

Campus Helping Resources
Students experiencing crises or personal problems that interfere with their general well- being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,* **www.counseling.ufl.edu** Counseling Services Groups and Workshops Outreach and Consultation Self-Help Library Wellness Coaching

- U Matter We Care, **www.umatter.ufl.edu/**

- *Career Connections Center,* First Floor JWRU, 392-1601, https://career.ufl.edu/.

- Student Success Initiative, http://studentsuccess.ufl.edu.

Student Complaints:
The School of Forestry, Fisheries and Geomatics Sciences cares about your experience and we will make every effort to address course concerns. We request that all online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered. If you have a more urgent concern, your first point of contact should be the SFFGS Academic Coordinator or the Graduate/Undergraduate Coordinator for the program offering the course.

- Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-student- conduct-code/.
- Online Course: https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint

Course|New for request 18372

Info

Request: FOR 6XXXC Urban Forestry
Description of request: New course request for the graduate version of a co-taught advanced undergrad / graduate course in Urban Forestry at SFFGS
Submitter: Jennifer Vogel alpha32605@ufl.edu
Created: 4/21/2023 12:27:20 PM
Form version: 3

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
FOR

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
xxx

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
C

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Joint (Ugrad/Grad)

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Urban Forestry

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Urban Forestry

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
Yes

Co-Listing Explanation
*Please detail how coursework differs for undergraduate, graduate, and/or professional students. Additionally, please upload a copy of both the undergraduate and graduate syllabus to the request in .pdf format. *
It is recommended that a Course Differentiation document be provided for review and approval purposes. Please

see the example below.

• Differentiation of Co-Listed Courses - Example

* *
* For more information please see the Co-Listed Graduate Undergraduate Courses Policy.*

Response:
This course is co-taught to advanced undergraduate students and graduate students in the School of Forests, Fisheries and Geomatic Sciences. See attached Differentiation document for details.

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
Explores the nature, scope and components of the urban forest, including biology, culture, protection and aspects of management, planning and policy.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
graduate standing

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
n/a

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course is an elective for the Master of Forest Resources and Conservation (professional, non-thesis), Master of Science (thesis and non-thesis), and Doctor of Philosophy degrees in Forest Resources and Conservation at SFRC.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

- Explain the role of urban forest management and the scientific aspects of an urban forest ecosystem;
- Measure and analyze urban forest structure, function, ecosystem services, and values;
- Assess the biophysical and socioeconomic aspects of urban and natural resource management;
- Apply problem-solving skills to management issues involving urban and urbanizing forests;
- Create professional work products to address urban forestry issues that are relevant to self-directed research focus and interests;

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Miller, Robert. Urban Forestry: Planning and Managing Urban Green Spaces, Third Edition. 2015. Waveland Press, Inc. Long Grove, IL
ISBN: 978-1-4786-0637-6

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Week

Tuesday : NZ 222

Thursday : NZ 222

1 Jan 10 / 12 Course Introduction Introduction to Urban Forestry / Tree Biology Introduction to Urban Ecology Campus walk (lab)
2 Jan 17 / 19 Urban Forest Structure, Function and Ecosystem Services Measuring urban forest structure & benefits (lab) iTree Design
3 Jan 24 / 26 Urban forest inventories Introduction to group project ECO / I-Tree model Data Collection Training (lab)
4 Jan 31/Feb2 Measuring & assessing urban canopy cover iTree Canopy (online lab) Exam 1 : Bring laptop to class
5 Feb 7 / 9

i-Tree ECO data collection training Urban watersheds Urban soils / Urban Site Index (lab)
6 Feb 14 / 16 Project workshop Trees and Land Development Landscaping / Tree protection ordinances
7 Feb 21 / 23 Project workshop Urban Management Planning
8 Feb 28 / Mar 2 Gainesville Land Development Ordinance Land Development field trip Exam 2 : Bring laptop to class
9 Mar 7 / 9

Tree selection / Urban Greening Arboriculture / Plant Health Care
10 Mar 14 / 16 S P R I N G B R E A K
11 Mar 21 / 23 Disturbance in the urban forest / Hurricanes i-Tree results and analysis
12 Mar 28 / 30 Tree Risk and Hazard Assessment (Klein) Economic Valuation of the Urban Forest Tree appraisal (Hoyer)
13 Apr 4 / 6

Urban green spaces & Wildlife (Hostettler) Sustainable subdivision field trip Ecology of Urban

Stormwater Management Lecture & Field Trip (Iannone)
14 Apr 11 / 13 Project workshop. Bring laptop to class Evaluation of group project presentations, Final projects due
15 Apr 18 / 20 Voices from the Urban Forest (Zoom) Course Review (Zoom)
16 Apr 25

Exam 3 : Bring laptop to class

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
Exams (3): 30%
Lab Reports/Discussions: 30%
Project Assignments: 40%
Total: 100%

Letter Grade A

A-

B+

B

B-

C+

C

C-

D+

D

D-

E
Course Score 93-100 90-92.99 87-89.99 83-86.99 80-82.99 77-79.99 73-76.99 70-72.99 67-69.99 63-66.99 60-62.99 0-59.99
Grade Points 4,

3.67, 3.33

3,

2.67,

2.33,

2,

1.67, 1.33,

1,

0.67, 0

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Dr. David Fox

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy

Please confirm that you have read and understand the University of Florida Course Evaluation Policy.

A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

Urban Forestry FOR 6xxxC 3 credits Spring 2023

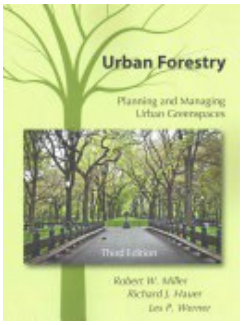
Dr. David A Fox, Lecturer
Forest Stewardship Cabin, Bldg 844 dafoxfl1@ufl.edu : (352) 846-0856

Office Hours: Tue & Thur. 2:45 – 3:30 or by appointment

Class Schedule: Tue & Thur. 12:50pm – 2:45pm (Periods 6-7)
Class Location: NZ222

UF IFAS UNIVERSITY of FLORIDA

SCHOOL OF FOREST, FISHERIES, AND GEOMATICS SCIENCES



Required Text

Miller, Robert. Urban Forestry: Planning and Managing Urban Green Spaces, Third Edition. 2015. Waveland Press, Inc. Long Grove, IL

ISBN: 978-1-4786-0637-6

Preferred method of contact: Canvas "Inbox" mail, response typically next business day, rarely evenings or weekend

Course Description: Explores the nature, scope and components of the urban forest, including biology, culture, protection and aspects of management, planning and policy.

Course Objectives:

At the end of this course students will be able to:

- Explain the role of urban forest management and the scientific aspects of an urban forest ecosystem;
- Measure and analyze urban forest structure, function, ecosystem services, and values;
- Assess the biophysical and socioeconomic aspects of urban and natural resource management;
- Apply problem-solving skills to management issues involving urban and urbanizing forests;
- Create professional work products to address urban forestry issues that are relevant to self-directed research focus and interests;

Cornerstone Tasks

- ***Lab Reports:*** Written reports will describe lab activities and synthesis of collected data. Assessment will be based on a grading rubric for the reports.
- ***Peer review for Urban Forest Assessment Report:*** Graduate students will provide suggestions and peer review for undergraduate project groups – urban forest assessment report. Assessment will be based on a grading rubric.
- ***Graduate Student Individual Project:*** Graduate students will complete a personal project, due at the end of the semester, in line with their academic and professional interests but related to urban forestry. This project can be in the form of a poster, a written research review, a physical research project with accompanying manuscript, or some other project, subject to approval. Graduate students should meet with Dr. Fox prior to the start of classes or early in the semester to discuss their personal interests and project ideas.

Teaching Methods

- ***Lectures:*** Narrated PowerPoint lectures will focus on presenting new information as well as that summarized from the assigned readings.
- ***Assigned Readings:*** Each week various articles and videos will be posted on-line prior to lecture. It is to your advantage to read these articles as they will often reinforce information given in lecture, aid in field study, or contain information appearing on exams.
- ***Labs:*** Lab periods may happen in the classroom, on campus, or at a nearby location. Lab exercises are designed to provide students with hands-on experience with field methods, to reinforce lecture material, and to hear from experts during guest lecture periods. Typically, a written lab report will be prepared based on the subject matter and instructions from the instructor.
- ***Exam:*** Three exams will be given covering lecture material, assigned readings/videos, and lab subjects.
- ***Group Study:*** Students will work in assigned groups to complete lab data collection, analysis, and certain reports. Students are encouraged to form small *ad hoc* study groups outside of class to reinforce concepts and to informally quiz each other on the course material presented.
- ***Individual Study:*** Each student will be expected to attend class and labs; detailed note-taking is encouraged. In addition, students should complete assigned readings, produce required lab reports, and spend individual time reviewing materials in advance of exams.

Grading

Exams (3):	30%
Lab Reports/Discussions:	30%
Project Assignments:	40%
Total:	100%

Exams: (545 pts) Timed comprehensive exams will be given at intervals during the semester. Exams will be completed through the eLearning site Canvas in the classroom – **bring your laptop to class on exam days.** Exams are open book/open notes; students may use their personal notes, the course text, and provided readings to complete exam questions.

Lab Reports: (145 pts) Lab reports are associated with a field activity or assignment and will be due before the beginning of the next class session (11:59am or just before noon). **Reports turned in late will receive half credit and those turned in after midnight of the due date will receive no credit.** A student must attend lab to get credit for that week's report unless excused. Unless otherwise specified by the instructor, all lab reports will be produced using 12pt Times New Roman font, single spaced, with one inch margins all around. Reports will be graded on content (accuracy and completeness of the assignment), presentation (quality of writing, grammar, spelling), and incorporation of material from assigned readings.

Discussions (70 pts) Topics and readings will be provided. See Reading List for more information.

Peer Evaluation of Group Projects (70 pts) Graduate students will attend the undergraduate group project presentations and participate in Q&A and evaluation of group presentations.

Project Proposal (50 pts) Topic selection and project planning for individual projects

Individual Project Assignments: (275 pts) Graduate students will complete a personal project, due at the end of the semester, in line with their academic and professional interests but related to urban forestry.

Final grading follows University standards https://gradcatalog.ufl.edu/graduate/regulations/ and is based on the following scale

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Course Score	93 - 100	90 - 92.99	87 - 89.99	83 - 86.99	80 - 82.99	77 - 79.99	73 - 76.99	70 - 72.99	67 - 69.99	63 - 66.99	60- 62.99	0- 59.99
Grade Points	4	3.67	3.33	3	2.67	2.33	2	1.67	1.33	1	0.67	0

Course Readiness

This course is recommended for graduate students who have completed courses in dendrology/plant ID, forest ecology, and natural resource sampling/mensuration. Having completed silviculture is not required but recommended. Students should know how to navigate and use the tools in the eLearning site Canvas, which will be used to deliver portions of the course content.

Attendance and Make-Up Work

While class attendance is not part of your grade, the condensed nature of subjects in this course will require you to be focused, attentive, and taking notes during every lecture or lab if you wish to be successful. Do not arrive late to class (let the instructor know early in the semester about any logistical issues that might result in habitual tardiness).

Due to the nature of most labs, in that data are collected for further workup or an experience is shared that requires analysis or comment, **attendance in lab is mandatory and lab reports may only be turned in if you attend the labs.** However, if there is a special circumstance covered by the UF attendance policy https://gradcatalog.ufl.edu/graduate/regulations/ please contact the instructor ahead of time. There is no designated lab period so a lab may occur on either class day.

It is your responsibility to keep track of assignment due dates and times as listed in Canvas. Most assignment due times will be 11:59am or just before noon. Assignments open and close based on the clock governing the Canvas server so submitting assignments at the last minute may prove troublesome for you – don't wait! A grace period, usually 12 hours, will be added to each assignment due date during which late work will be accepted. Any late assignment scores will be reduced by 50% of the original point value and then be graded according to the rubric. No assignments will be accepted after the assignment closes so do not email them to an instructor.

Things you will need for this class:

1) A computer with office software for written reports and reliable internet access to the class eLearning site in Canvas. An alternative is accessing UF APPS http://apps.ufl.edu and using office software available there.
2) A way to take class and field notes (clipboard or hard binder for field notes).
3) For field labs, sunscreen, long sleeves, and a hat will help prevent sunburn.
4) A water bottle for field labs (a water cooler will be available for refills).
5) Appropriate outdoor clothing and footwear for field labs. You may get muddy, wet, and sweaty depending on the lab site. Field labs happen rain or shine (nearby lightning or hail might send us scurrying to the vans).

This course includes outdoor lab activities. If you are allergic to insect bites, or if you have other medical conditions for which emergency treatment may be required, **it is your responsibility to inform the instructor *before the course starts*, about:** (1) your specific condition, (2) where

you keep your medicine, and (3) how to administer emergency treatment should the situation arise.

The following is important information concerning certain hazards of working outside in Florida:

- Heat: http://solutionsforyourlife.ufl.edu/hot_topics/agriculture/heat_stress.html
- Dehydration: http://fineinstitute.com/patient-education/?id=11913&lang=English&db=hlt&ebscoType=static&widgetTitle=Spinal+Links
- Chiggers: http://edis.ifas.ufl.edu/pdffiles/IG/IG08500.pdf or http://pherec.org/EntGuides/EntGuide6.pdf
- Ticks & Lyme Disease: http://edis.ifas.ufl.edu/pdffiles/MG/MG20400.pdf or http://fmel.ifas.ufl.edu/buzz/clticks.shtml

Class and Discussion Decorum

All course participants are expected to interact with dignity and professionalism in the classroom, in the field, or in an on-line discussion. Be professional. You are preparing for a career and should be learning to interact with your fellow classmates as you would in your future professional life. Written communication should follow standard rules for grammar and spelling and be clear, concise and intelligent.

Be respectful and open to opinions and ideas that differ from yours. The exchange of diverse thoughts, ideas and opinions are an important part of the scholarly environment. When responding to statements or posts made by others, address the ideas, not the person. Disagreement with the ideas of others is perfectly acceptable; ***how*** one disagrees should not be hurtful or offensive. Insulting remarks and name-calling are never appropriate.

Academic Honesty

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/ specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.

Canvas Technology Requirements

Computers, Internet, and Web browsers: Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser. It is recommended to use a computer less than five years old with at least 1GB of RAM. It is recommended to have a minimum Internet speed of 512kbps. It is strongly recommended to not use a wireless connection, phone, tablet, or notepad for critical course tasks such as exams and discussions.

Canvas currently supports the following browsers: Chrome, Safari, Firefox, Edge. For more information on approved computers and browsers please visit: https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66 On this web page there is an area titled "Is My Browser up to Date?" Use it to check each computer and browser you may use in this course. There is another important area on "Browser Privacy Settings." Read the section(s) for any browser intended for use. For example, Note that: In browsers such as Safari, insecure content will never be displayed in the browser. Return to the page to check for updates on technology issues in Canvas.

If you encounter technical difficulties in this course, contact the UF Computing Help Desk right away to troubleshoot. https://helpdesk.ufl.edu/ or (352) 392-HELP. If the problem cannot be fixed immediately, notify your instructor, and provide them with the Help Desk ticket number.

UF Policy on In-Class Recording

Students are allowed to record video or audio of class lectures (a "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation).

However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) **for personal educational use**, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Students may not publish recorded lectures without the written consent of the instructor.

Publication without the written permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Academic Resources

SFFGS Academic Hub (Canvas):

https://ufl.instructure.com/courses/303721 UF Writing

Studio: https://writing.ufl.edu/writing-studio/

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center
3190 Radio Road, (352) 392-1575,
www.counseling.ufl.edu/cwc/ Counseling Services
Groups and
Workshops
Outreach and
Consultation
Self-Help Library
Training
Programs
Community Provider Database

Office of Victim Services
1515 Museum Road, (352) 392-5648, https://police.ufl.edu/about/divisions/office-of-victim-services/

Career Resource Center
First Floor JWRU, (352) 392-1601, www.career.ufl.edu

Students with Disabilities
0001 Reid Hall, (352) 392-8565, www.disability.com
The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. **If you have registered with the Disability Resource Center and require academic accommodations, it is your responsibility to privately inform the instructor of your needs as soon as possible before the first class session.**

UF attendance policy
https://gradcatalog.ufl.edu/graduate/regulations/
Please contact the instructor ahead of time or as soon as possible after an absence to be considered excused.

Student Complaints:

Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/.
Online Course: https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint

The School of Forest Resources & Conservation cares about your experience and we will make every effort to address course concerns. We request that all online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered.

If you have a more urgent concern, your first point of contact should be the SFRC Academic Coordinator or the Graduate/Undergraduate Coordinator for the program offering the course.

FOR 4090C–2D17: Urban Forestry : 2023 Spring Class Schedule

Assigned readings/videos and written assignments are posted on-line (Sequence and topics subject to change)

Week		Tuesday : NZ 222	Thursday : NZ 222
1	Jan 10 / 12	Course Introduction Introduction to Urban Forestry / Tree Biology	Introduction to Urban Ecology Campus walk (lab)
2	Jan 17 / 19	Urban Forest Structure, Function and Ecosystem Services	Measuring urban forest structure & benefits (lab) iTree Design
3	Jan 24 / 26	Urban forest inventories Introduction to group project	ECO / I-Tree model Data Collection Training (lab)
4	Jan 31/Feb2	Measuring & assessing urban canopy cover iTree Canopy (online lab)	**Exam 1 : Bring laptop to class**
5	Feb 7 / 9	i-Tree ECO data collection training Urban watersheds	Urban soils / Urban Site Index (lab)
6	Feb 14 / 16	Project workshop	Trees and Land Development Landscaping / Tree protection ordinances
7	Feb 21 / 23	Project workshop	Urban Management Planning
8	Feb 28 / Mar 2	Gainesville Land Development Ordinance Land Development field trip	**Exam 2 : Bring laptop to class**
9	Mar 7 / 9	Tree selection / Urban Greening	Arboriculture / Plant Health Care
10	Mar 14 / 16	**S P R I N G**	**B R E A K**
11	Mar 21 / 23	Disturbance in the urban forest / Hurricanes	i-Tree results and analysis
12	Mar 28 / 30	Tree Risk and Hazard Assessment (Klein)	Economic Valuation of the Urban Forest Tree appraisal (Hoyer)
13	Apr 4 / 6	Urban green spaces & Wildlife (Hostettler) Sustainable subdivision field trip	Ecology of Urban Stormwater Management Lecture & Field Trip (Iannone)
14	Apr 11 / 13	Project workshop. Bring laptop to class	Evaluation of group project presentations Final projects due
15	Apr 18 / 20	Voices from the Urban Forest (Zoom)	Course Review (Zoom)
16	Apr 25	**Exam 3 : Bring laptop to class**	
Enjoy your Summer Break!			

Meeting Format:	Face-to-Face Session	Live Zoom or Recorded Lectures

FOR4090c and FOR6xxxc Differentiation Summary

Student Objectives

At the end of this course students will be able to:
FOR4090c

- Explain the role of urban forest management and the scientific aspects of an urban forest ecosystem;
- Collaborate effectively in teams
- Measure and analyze urban forest structure, function, ecosystem services, and values;
- Assess the biophysical and socioeconomic aspects of urban and natural resource management;
- Apply problem-solving skills to management issues involving urban and urbanizing forests.

FOR6xxxc

- Explain the role of urban forest management and the scientific aspects of an urban forest ecosystem;
- Measure and analyze urban forest structure, function, ecosystem services, and values;
- Assess the biophysical and socioeconomic aspects of urban and natural resource management;
- Apply problem-solving skills to management issues involving urban and urbanizing forests.
- Create professional work products to address urban forestry issues that are relevant to self-directed research focus and interests

Assignments

FOR4090c

- Exams (3) – 545 pts
- Lab reports – 145 pts
- Lab / Reading Discussions – 70 pts
- Urban Forestry Assessment Report Group Project* -- 275 pts
  Total pts 1035

*In the group project, student groups will collect field data and collaboratively plan, develop, and present an urban forest assessment report for a portion of the UF Campus using the i-Tree ECO model results.

FOR6xxxc

- Exams (3) – 545 pts
- Lab reports – 145 pts

- Lab / Reading Discussions – 70 pts
- Project Assignments
    - Provide Undergraduate Group Project Peer Evaluation – 70 pts
    - Individual Project Proposal – 50 pts
    - Individual Project* -- 275 pts

Total points 1155

*Graduate students will complete a personal project, due at the end of the semester. Students should identify a topic of inquiry in line with their academic and professional interests but related to urban forestry. This project can be in the form of a poster, a written research review, a physical research project with accompanying manuscript, or some other project, subject to approval.

Grading

FOR4090c

Exams (3): 35%

Lab Reports/Discussions: 30%

Group Project: 35%

Total: 100%

FOR6xxxc

Exams (3): 30%

Lab Reports/Discussions: 30%

Project Assignments: 40%

Total: 100%

Urban Forestry FOR 4090C-2D17 Spring 2023

Dr. David A Fox, Lecturer
Forest Stewardship Cabin, Bldg 844
dafoxfl1@ufl.edu : (352) 846-0856
Office Hours: Tue & Thur. 2:45 – 3:30 or by appointment

Prerequisites: FNR3131C or equivalent and FOR3153C or equivalent

Class Schedule: Tue & Thur. 12:50pm – 2:45pm (Periods 6-7)
Class Location: NZ222

UF IFAS UNIVERSITY of FLORIDA — SCHOOL OF FOREST, FISHERIES, AND GEOMATICS SCIENCES

"Someone is sitting in the shade today because someone planted a tree a long time ago." (Warren Buffett)

Course Description

Introduces the nature, scope and components of the urban forest, including biology, culture, protection and aspects of management, planning and policy.

Course Essential Questions

Urban forestry is the art and science of managing the biotic components in cities for the health and well-being of people. As people move to urban centers, they become increasingly disconnected from the natural and agricultural systems known to their ancestors. Students will learn how concepts of forestry, natural resource management, sustainability, urban planning, and landscape design blend in managing biotic and abiotic components of urban forest ecosystems to produce a safe and healthy environment for city dwellers.

- What are the effects of urbanization on natural ecosystems?
- How is urban forest management the same and different compared to management of rural, agricultural, or more natural forest systems?
- What aspects of the urban forest can be managed to improve the quality of life for the people living within it?

Course Objectives

Upon completing the course, students will be able to:

- Explain the role of urban forest management and the scientific aspects of an urban forest ecosystem;
- Measure and analyze urban forest structure, function, ecosystem services, and values;
- Assess the biophysical and socioeconomic aspects of urban and natural resource management;
- Collaborate to apply problem-solving skills to management issues involving urban and urbanizing forests.

Cornerstone Tasks

- ***Lab Reports:*** Written reports will describe lab activities and synthesis of collected data. Assessment will be based on a grading rubric for the reports.
- ***Group project: Urban Forest Assessment Report:*** Student groups will collaboratively plan, develop, and present an urban forest assessment report for a portion of the UF Campus using the i-Tree ECO model results. Assessment will be based on a grading rubric.

Teaching Methods

- ***Lectures:*** Narrated PowerPoint lectures will focus on presenting new information as well as that summarized from the assigned readings.
- ***Assigned Readings:*** Each week various articles and videos will be posted on-line prior to lecture. It is to your advantage to read these articles as they will often reinforce information given in lecture, aid in field study, or contain information appearing on exams.
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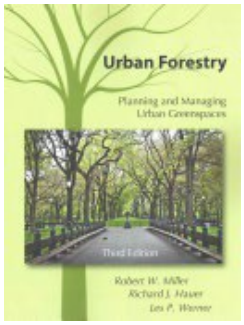

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Discussions (70pts) Topics and readings will be provided. See Reading List for more information.

Group Project: (275 pts) Student groups will collect field data and collaboratively plan, develop, and present an urban forest assessment report for a portion of the UF Campus using the i-Tree ECO model results.

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Course Readiness

This course is designed for third- or fourth-year FRC or NRC major undergraduate or any graduate students who have completed courses in dendrology/plant ID, forest ecology, and natural resource sampling/mensuration. Having completed silviculture is not required but recommended. Students should know how to navigate and use the tools in the eLearning site Canvas, which will be used to deliver portions of the course content.

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- Chiggers: http://edis.ifas.ufl.edu/pdffiles/IG/IG08500.pdf or http://pherec.org/EntGuides/EntGuide6.pdf
- Ticks & Lyme Disease: http://edis.ifas.ufl.edu/pdffiles/MG/MG20400.pdf or http://fmel.ifas.ufl.edu/buzz/clticks.shtml

Class and Discussion Decorum

All course participants are expected to interact with dignity and professionalism in the classroom, in the field, or in an on-line discussion. Be professional. You are preparing for a career and should be learning to interact with your fellow classmates as you would in your future professional life. Written communication should follow standard rules for grammar and spelling and be clear, concise and intelligent.

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Academic Honesty

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/ specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.

Canvas Technology Requirements

Computers, Internet, and Web browsers: Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser. It is recommended to use a computer less than five years old with at least 1GB of RAM. It is recommended to have a minimum Internet speed of 512kbps. It is strongly recommended to not use a wireless connection, phone, tablet, or notepad for critical course tasks such as exams and discussions.

Canvas currently supports the following browsers: Chrome, Safari, Firefox, Edge. For more information on approved computers and browsers please visit: https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66 On this web page there is an area titled "Is My Browser up to Date?" Use it to check each computer and browser you may use in this course. There is another important area on "Browser Privacy Settings." Read the section(s) for any browser intended for use. For example, Note that: In browsers such as Safari, insecure content will never be displayed in the browser. Return to the page to check for updates on technology issues in Canvas.

If you encounter technical difficulties in this course, contact the UF Computing Help Desk right away to troubleshoot. https://helpdesk.ufl.edu/ or (352) 392-HELP. If the problem cannot be fixed immediately, notify your instructor, and provide them with the Help Desk ticket number.

UF Policy on In-Class Recording

Students are allowed to record video or audio of class lectures (a "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation).

However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) **for personal educational use**, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Students may not publish recorded lectures without the written consent of the instructor.

Publication without the written permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Academic Resources

SFFGS Academic Hub (Canvas):

https://ufl.instructure.com/courses/303721 UF Writing

Studio: https://writing.ufl.edu/writing-studio/

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center
3190 Radio Road, (352) 392-1575,
www.counseling.ufl.edu/cwc/ Counseling Services
Groups and
Workshops
Outreach and
Consultation
Self-Help Library
Training
Programs
Community Provider Database

Office of Victim Services
1515 Museum Road, (352) 392-5648, https://police.ufl.edu/about/divisions/office-of-victim-services/

Career Resource Center
First Floor JWRU, (352) 392-1601, www.career.ufl.edu

Students with Disabilities
0001 Reid Hall, (352) 392-8565, www.disability.com
The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. **If you have registered with the Disability Resource Center and require academic accommodations, it is your responsibility to privately inform the instructor of your needs as soon as possible before the first class session.**

UF attendance policy
https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/
Please contact the instructor ahead of time or as soon as possible after an absence to be considered excused.

The UF Religious Holidays Policy is available at:
https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#religiousholidaystext
At the University of Florida, students and faculty work together to allow students the opportunity to observe the holy days of their faith. A student should inform the faculty member of the religious observances of their faith that will conflict with class attendance, with tests or examinations, or with other class activities **prior to the class or occurrence of that test or activity**.

Student Complaints:

Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/.
Online Course: https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint

The School of Forest Resources & Conservation cares about your experience and we will make every effort to address course concerns. We request that all online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered.

If you have a more urgent concern, your first point of contact should be the SFRC Academic Coordinator or the Graduate/Undergraduate Coordinator for the program offering the course.

FOR 4090C–2D17: Urban Forestry : 2023 Spring Class Schedule

Assigned readings/videos and written assignments are posted on-line (Sequence and topics subject to change)

Week		Tuesday : NZ 222	Thursday : NZ 222
1	Jan 10 / 12	Course Introduction Introduction to Urban Forestry / Tree Biology	Introduction to Urban Ecology Campus walk (lab)
2	Jan 17 / 19	Urban Forest Structure, Function and Ecosystem Services	Measuring urban forest structure & benefits (lab) iTree Design
3	Jan 24 / 26	Urban forest inventories Introduction to group project	ECO / I-Tree model Data Collection Training (lab)
4	Jan 31/Feb2	Measuring & assessing urban canopy cover iTree Canopy (online lab)	**Exam 1 : Bring laptop to class**
5	Feb 7 / 9	i-Tree ECO data collection training Urban watersheds	Urban soils / Urban Site Index (lab)
6	Feb 14 / 16	Group project workshop (data collection)	Trees and Land Development Landscaping / Tree protection ordinances
7	Feb 21 / 23	Group project workshop (data collection)	Urban Management Planning
8	Feb 28 / Mar 2	Gainesville Land Development Ordinance Land Development field trip	**Exam 2 : Bring laptop to class**
9	Mar 7 / 9	Tree selection / Urban Greening	Arboriculture / Plant Health Care
10	Mar 14 / 16	**S P R I N G**	**B R E A K**
11	Mar 21 / 23	Disturbance in the urban forest / Hurricanes	i-Tree results and analysis
12	Mar 28 / 30	Tree Risk and Hazard Assessment (Klein)	Economic Valuation of the Urban Forest Tree appraisal (Hoyer)
13	Apr 4 / 6	Urban green spaces & Wildlife (Hostettler) Sustainable subdivision field trip	Ecology of Urban Stormwater Management Lecture & Field Trip (Iannone)
14	Apr 11 / 13	Group Project workshop (report collaboration) Bring laptop to class	**Group project presentations**
15	Apr 18 / 20	Voices from the Urban Forest (Zoom)	Course Review (Zoom)
16	Apr 25	**Exam 3 : Bring laptop to class**	
Enjoy your Summer Break!			

Meeting Format:	Face-to-Face Session	Live Zoom or Recorded Lectures

Course|New for request 17091

Info

Request: MCB 6937 AI in Agricultural and Life Sciences
Description of request: Starting in October of this year, I will be the instructor of the "AI in Agricultural and Life Sciences " course at the Microbiology and Cell Science department.
This is a request for assigning a permanent course number for this course.
Submitter: Raquel Dias raquel.dias@ufl.edu
Created: 4/20/2023 12:12:36 PM
Form version: 12

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
MCB

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
937

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:

Joint (Ugrad/Grad)

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
AI in Agricultural and Life Sciences

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
AI in Agricultural & Life Sc.

Degree Type
Select the type of degree program for which this course is intended.

Response:
Other

If other degree type, specify

Response:
Joint undergrad/graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:

Yes

Co-Listing Explanation
Please detail how coursework differs for undergraduate, graduate, and/or professional students. Additionally, please upload a copy of both the undergraduate and graduate syllabus to the request in .pdf format. For more information please see the Co-Listed Graduate Undergraduate Courses Policy.

Response:
In addition to the final project assignment, the graduate version of this course consists of 3 additional assignments based on recommended readings and on what was learned in the class. The recommended article list will be used as examples for two review writing assignments. The first one focuses on what are the main applications of AI, and the second one focuses on what are the major limitations of AI and how to overcome them for better AI dissemination. In addition to the 2 review/discussion assignments, there is one research proposal assignment where the graduate student will describe aims, hypothesis, and approach for a phD project that applies AI to the biological data that they are planning to acquire during their phD. Alternatively, students will be allowed to use public repository data for their research proposal assignments. The 3 assignments included in the graduate version of the course consist of 20, 30, and 60 points, which is in total 34% of the maximum points (319). The recommended articles for reading will now be used as examples for two review write up and discussion assignments.

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Fall

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2023

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
Artificial intelligence (AI) is used to solve problems in research and industry. This course provides students with an understanding of AI systems and how they can be applied to answer challenging questions in life sciences. Through online study materials and hands on exercises, students will obtain the skills and knowledge they need to use AI to solve real world life sciences problems.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
No course prerequisites.

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
Artificial intelligence or AI is the technology behind some of the most significant recent inventions in our world today. From computers that can chat with us to self-driving cars and the Mars landers, the power of AI-enabled systems to get things done in the real world is quite impressive. Understanding how contemporary AI works and how it can be used will help position students to make a lasting impact in their field.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
By the end of this course, students will be able to:
- Implement multi-neuron layers and multi-layer networks to build general nonlinear neural networks in TensorFlow.
- Diagnose model overfitting in TensorFlow using validation data, and implement and evaluate standard methods to mitigate overfitting in TensorFlow.
- Use Google Colaboratory (Google Colab) and Jupyter Notebooks to build and train neural networks.
- Apply correct vocabulary to characterize neural networks, modern AI and the history of AI development.
- Identify important applications of phenotype prediction in agricultural and life sciences.
- Define overfitting and use AI vocabulary to describe how overfitting is evaluated in practice.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
There is no required textbook for this course. The instructor will provide all course materials, including pdfs of scientific articles needed for assignments.
Recommended textbooks for your reference library if you want to learn more about AI are as follows:
- The elements of Statistical Learning, Second Edition. Trevor Hastie, Robert Tibshirani, Jerome Friedman. Springer. 2009
- Neural Networks and Deep Learning. Charu C Aggarwal. Springer. 2018.

Recommended scientific articles for the review write up assignment 1:

- Dias R, Torkamani A. Artificial intelligence in clinical and genomic diagnostics. Genome medicine. 2019 Dec;11(1):1-2.
- Eli-Chukwu NC. Applications of artificial intelligence in agriculture: A review. Engineering, Technology & Applied Science Research. 2019 Aug 10;9(4):4377-83.
- Haleem A, Javaid M, Khan IH. Current status and applications of artificial intelligence (AI) in medical field: An overview. Current Medicine Research and Practice. 2019 Nov 1;9(6):231-7.
- Nichols JA, Herbert Chan HW, Baker MA. Machine learning: applications of artificial intelligence to imaging and diagnosis. Biophysical reviews. 2019 Feb;11(1):111-8.
- Richards B, Tsao D, Zador A. The application of artificial intelligence to biology and neuroscience. Cell. 2022 Jul 21;185(15):2640-3.
- Smith KP, Wang H, Durant TJ, Mathison BA, Sharp SE, Kirby JE, Long SW, Rhoads DD. Applications of artificial intelligence in clinical microbiology diagnostic testing. Clinical Microbiology Newsletter. 2020 Apr 15;42(8):61-70.
- Koromina M, Pandi MT, Patrinos GP. Rethinking drug repositioning and development with artificial intelligence, machine learning, and omics. Omics: a journal of integrative biology. 2019 Nov 1;23(11):539-48.
- Cong Y, Endo T. Multi-omics and artificial intelligence-guided drug repositioning: Prospects, challenges, and lessons learned from COVID-19. OMICS: A Journal of Integrative Biology. 2022

Jul 1;26(7):361-71.
• Cui M, Zhang DY. Artificial intelligence and computational pathology. Laboratory Investigation. 2021 Apr;101(4):412-22.

Recommended scientific articles for the review write up assignment 2:

• Naudé W. Artificial intelligence vs COVID-19: limitations, constraints and pitfalls. AI & society. 2020 Sep;35(3):761-5.
• Antoniades C, Oikonomou EK. Artificial intelligence in cardiovascular imaging—principles, expectations, and limitations. European Heart Journal. 2021 Sep 24.
• Xu J, Yang P, Xue S, Sharma B, Sanchez-Martin M, Wang F, Beaty KA, Dehan E, Parikh B. Translating cancer genomics into precision medicine with artificial intelligence: applications, challenges and future perspectives. Human genetics. 2019 Feb;138(2):109-24.
• Koumakis L. Deep learning models in genomics; are we there yet?. Computational and Structural Biotechnology Journal. 2020 Jan 1;18:1466-73.
• Petch J, Di S, Nelson W. Opening the black box: the promise and limitations of explainable machine learning in cardiology. Canadian Journal of Cardiology. 2022 Feb 1;38(2):204-13.
• John-Mathews JM. Some critical and ethical perspectives on the empirical turn of AI interpretability. Technological Forecasting and Social Change. 2022 Jan 1;174:121209.
• Gunning D, Stefik M, Choi J, Miller T, Stumpf S, Yang GZ. XAI—Explainable artificial intelligence. Science robotics. 2019 Dec 18;4(37):eaay7120.
• Confalonieri R, Coba L, Wagner B, Besold TR. A historical perspective of explainable Artificial Intelligence. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery. 2021 Jan;11(1):e1391.
• Arrieta AB, Díaz-Rodríguez N, Del Ser J, Bennetot A, Tabik S, Barbado A, García S, Gil-López S, Molina D, Benjamins R, Chatila R. Explainable Artificial Intelligence (XAI): Concepts, taxonomies, opportunities and challenges toward responsible AI. Information fusion. 2020 Jun 1;58:82-115.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

week	topic
1	introduction to AI in Agricultural and Life Sciences
2	getting started with neural networks
3	foundations of neural network modeling
4	fundamentals of model overfitting
5	fixing overfitting with data and training
6	fixing overfitting with modeling
7	case study - quantitative phenotype prediction from genomic variation
8	classification problems
9	convolutions and image classification
10	case study - landscape classification
11	recurrent networks
12	case study - microbiome disease association using recurrent networks
13	transformers
14	final project
15	final project

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If

participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

quiz	pts	%
1	2	0.6
2	2	0.6
3	2	0.6
4	2	0.6
5	2	0.6
6	4	1.3
7	5	1.6
8	3	0.9
9	9	2.8
10	2	0.6
11	4	1.3
12	2	0.6
13	3	0.9
14	2	0.6
15	4	1.3
16	2	0.6
17	3	0.9
18	2	0.6
19	3	0.9
20	4	1.3
21	4	1.3
22	4	1.3
23	6	1.9
24	3	0.9
25	3	0.9
26	4	1.3
27	3	0.9
28	3	0.9
29	4	1.3
30	4	1.3
31	6	1.9
32	6	1.9
33	3	0.9
34	3	0.9
35	3	0.9
36	6	1.9
37	3	0.9
38	4	1.3
39	5	1.6

assignment / project	pts	%
1	20	6.3 (graduate only)
2	30	9.4 (graduate only)
3	60	18.8 (graduate only)
4	70	21.9

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Raquel Dias, Luiz Roesch

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the

email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

ALSXXXXC AI in Agricultural and Life Sciences (graduate course)

Academic Term: Fall 2023

3-credit hours asynchronous course

Instructor: Raquel Dias
Office: Microbiology and Cell Science Department #1250
Phone: (352) 870-4412
Email: raquel.dias@ufl.edu
Office Hours: Mondays and Thursdays 3:00-5:00PM

The best way to contact me is via E-learning mail, or I can set up a time for individual zoom sessions or in-person meetings.

Course Description

Artificial intelligence (AI) is used to solve problems in research and industry. This course provides students with an understanding of AI systems and how they can be applied to answer challenging questions in life sciences. Through online study materials and hands on exercises, students will obtain the skills and knowledge they need to use AI to solve real world life sciences problems.

Course Structure

Quizzes (44%) + Assignments (34%) + final project (22%) = 100%

This course consists of the following primary activities:

- Course readings and tutorials delivered via e-learning.
- Assigned programing exercises delivered as Jupyter notebooks.
- Weekly office hours for troubleshooting and answering questions via Zoom.
- Quizzes, assignments, and final project delivered through e-learning.

Quizzes: The quizzes consist of multiple choice and fill in the blank questions based on the readings and hands-on exercises. Most of the quizzes are very short and take a few minutes to be completed. The quizzes represent 139 points, which represents 44% of the total possible points (319).

Final project: The final project consists of using the AI methods learned in the course to propose a scientific hypothesis and analytical methodology to study associations between human gut microbiome and disease. The students will design, conduct and evaluate the results of an AI approach to predict disease risk using gut-associated microbiome data. The final project (70 points) represents 22% of the grade. The final project should take a few hours to be completed for students that have the prerequisite skills.

Assignments: In addition to the final project assignment, the graduate version of this course consists of 3 additional assignments based on recommended readings and on what was learned in the class. The recommended article list will be used as examples for two review writing assignments. The first one focuses on what are the main applications of AI, and the second one focuses on what are the major limitations of AI and how to overcome them for better AI dissemination. In addition to the 2 review/discussion assignments, there is one research proposal assignment where the graduate student will describe aims, hypothesis, and approach for a PhD project that applies AI to the biological data that they are planning to acquire during their PhD. Alternatively, students will be allowed to use public repository data for their research proposal assignments. The 3 assignments included in the graduate version of the course consist of 20, 30, and 60 points, which is in total 34% of the maximum points (319). Each of the assignments should take a few hours to be completed for students that have the prerequisite skills.

Prerequisite skills

There is no official prerequisite course, but it is highly recommended that students taking this course have at least one of the following skills at beginner level: python programming, statistics, or machine learning. If you don't have any of the skills, you will spend much longer taking the quizzes, working on the assignments, and trying to understand the hands-on exercises.

Course learning objectives

By the end of this course, students will be able to:

- Implement multi-neuron layers and multi-layer networks to build general nonlinear neural networks in TensorFlow.

- Diagnose model overfitting in TensorFlow using validation data, and implement and evaluate standard methods to mitigate overfitting in TensorFlow.

- Use Google Colaboratory (Google Colab) and Jupyter Notebooks to build and train neural networks.

- Apply correct vocabulary to characterize neural networks, modern AI and the history of AI development.

- Identify important applications of phenotype prediction in agricultural and life sciences.

- Define overfitting and use AI vocabulary to describe how overfitting is evaluated in practice.

Course weekly topics and quizzes:

week	topic	quiz	pts	%
1	introduction to AI in Agricultural and Life Sciences	1	2	0.6
		2	2	0.6
		3	2	0.6
		4	2	0.6
		5	2	0.6
		6	4	1.3
2	getting started with neural networks	7	5	1.6
		8	3	0.9
		9	9	2.8
3	foundations of neural network modeling	10	2	0.6
		11	4	1.3
		12	2	0.6
4	fundamentals of model overfitting	13	3	0.9
		14	2	0.6
		15	4	1.3
5	fixing overfitting with data and training	16	2	0.6
		17	3	0.9
		18	2	0.6
6	fixing overfitting with modeling	19	3	0.9
		20	4	1.3
		21	4	1.3
7	case study - quantitative phenotype prediction from genomic variation	22	4	1.3
		23	6	1.9
8	classification problems	24	3	0.9
		25	3	0.9
		26	4	1.3
9	convolutions and image classification	27	3	0.9
		28	3	0.9
		29	4	1.3
10	case study - landscape classification	30	4	1.3
		31	6	1.9

11	recurrent networks	32 33 34	6 3 3	1.9 0.9 0.9
12	case study - microbiome disease association using recurrent networks	35 36	3 6	0.9 1.9
13	transformers	37 38 39	3 4 5	0.9 1.3 1.6
14 15	final project			
	Total points from quizzes		**139**	**44**

In addition to quizzes, there are 4 assignments/projects:

week	topic	assignment / project	pts	%
3	foundations of neural network modeling	1	20	6.3
8	classification problems	2	30	9.4
12	case study - microbiome disease association using recurrent networks	3	60	18.8
14 15	final project	4	70	21.9
	Total points from assignments and projects:		**180**	**56**

Total points from quizzes (139) + assignments and projects (180) = 319

Required and recommended textbooks

There is no required or recommended textbook for this course. All course materials will be provided by the instructor. A reading list is provided below.

Recommended scientific articles for the review write up assignment 1:

- Dias R, Torkamani A. Artificial intelligence in clinical and genomic diagnostics. Genome Medicine. 2019 Dec;11(1):1-2.
- Eli-Chukwu NC. Applications of artificial intelligence in agriculture: A review. Engineering, Technology & Applied Science Research. 2019 Aug 10;9(4):4377-83.
- Haleem A, Javaid M, Khan IH. Current status and applications of artificial intelligence (AI) in medical field: An overview. Current Medicine Research and Practice. 2019 Nov 1;9(6):231-7.
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- Cui M, Zhang DY. Artificial intelligence and computational pathology. Laboratory Investigation. 2021 Apr;101(4):412-22.

Recommended scientific articles for the review write up assignment 2:

- Naudé W. Artificial intelligence vs COVID-19: limitations, constraints and pitfalls. AI & Society. 2020 Sep;35(3):761-5.
- Antoniades C, Oikonomou EK. Artificial intelligence in cardiovascular imaging—principles, expectations, and limitations. European Heart Journal. 2021 Sep 24.
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Grading Scale

Course grades will be determined based on percentage of 319 total possible points. The following grading scale will be used:

Letter grade	% of total points	Necessary points
A	90.00 – 100.0	287.10-319.00
B+	85.00 – 89.99	271.15-287.07
B	80.00 – 84.99	255.20-271.12
C+	75.00 – 79.99	239.25-255.17
C	70.00 – 74.99	223.30-239.22
D+	65.00 – 69.99	207.35-223.27
D	55.00 – 64.99	175.45-207.32
E	0.00 – 54.99	0.00-175.42

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It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see:

http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code (Links to an external site.)

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

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Campus Helping Resources

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- UF Student Success initiative: https://studentsuccess.ufl.edu/
- Student Complaints:
    - Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/ (Links to an external site.)
    - Online Course: http://www.distance.ufl.edu/student-complaint-process (Links to an external site.)

Diversity, Inclusion and Equity

This class fully supports the University of Florida's commitment to diversity, inclusion, and equity. By fostering a sense of belonging for students, staff and faculty while leveraging the uniqueness of the people who study and work at the university, we believe our campus community is enriched and enhanced by diversity, including but not limited to race, ethnicity, national origin, gender, gender identity, sexuality, class and religion. Our course will help foster an understanding of the diversity of our campus community, locally and globally.

We will strive to create a learning environment for our students that support a diversity of thoughts, perspectives and experiences while honoring your identities. To accomplish this, please let us know:

- If you have a name and/or set of pronouns that differ from those that appear in your official university records
- If you believe your performance in the class is being impacted by your experiences outside of class. Do not hesitate to reach out and talk with us. We want to be a resource for you. Anonymous feedback may be submitted, which may lead us to make a general announcement to the class, if necessary, to address your concerns.
- We, like many people, are still in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that makes you feel uncomfortable, please talk to us about it.

Contact us with any concerns regarding inclusion and equity, including accessibility of learning materials, equipment, and software.

Course Syllabus (graduate version)

Difference to the undergraduate version:

The Grading scheme of the Undergrad course is Quizzes (66.5%) and a final project (33.5%). This contrasts with the Graduate course, which also contains assignments (34% of the total grade), in addition to Quizzes (44%) and the final project (22%)

The recommended articles for reading are used as examples for two review write up and discussion assignments. The first one focuses on what are the main applications of AI, and the second one focuses on what are the major limitations of AI and how to overcome them for better AI dissemination. In addition to the 2 review/discussion assignments, there is one research proposal assignment where the graduate students will describe aims, hypothesis, and approach for a PhD project that applies AI to the biological data that they are planning to acquire during their PhD. Alternatively, I will provide examples of datasets for the students that prefer to use public repository data for their research proposal assignment. The 3 new assignments included in the graduate version of the course consist of 20, 30, and 60 points, which is in total 34% of the total grade.

ALS3200C AI in Agricultural and Life Sciences

Academic Term: Fall 2023

3-credit hours asynchronous course

Instructor: Raquel Dias
Office: Microbiology and Cell Science Department #1250
Phone: (352) 870-4412
Email: raquel.dias@ufl.edu
Office Hours: Mondays and Thursdays 3:00-5:00PM

The best way to contact me is via E-learning mail, or I can set up a time for individual zoom sessions or in-person meetings.

Course Description

Artificial intelligence (AI) is used to solve problems in research and industry. This course provides students with an understanding of AI systems and how they can be applied to answer challenging questions in life sciences. Through online study materials and hands on exercises, students will obtain the skills and knowledge they need to use AI to solve real world life sciences problems.

Course Structure

Quizzes (66.5%) + final project (33.5%) = 100%

This course consists of the following primary activities:

- Course readings and tutorials delivered via e-learning.
- Assigned programing exercises delivered as Jupyter notebooks.
- Weekly office hours for troubleshooting and answering questions via Zoom.
- Quizzes and final project delivered through e-learning.

Quizzes: The quizzes consist of multiple choice and fill in the blank questions based on the readings and hands-on exercises. Most of the quizzes are very short and take a few minutes to be completed. The quizzes represent 139 points, which represents 66.5% of the total possible points (209).

Final project: The final project consists of using the AI methods learned in the course to propose a scientific hypothesis and analytical methodology to study associations between human gut microbiome and disease. The students will design, conduct, and evaluate the results of an AI approach to predict disease risk using gut-associated microbiome data. The final project represents 70 points, which is 33.5% of the total possible points (209). The final project should take a few hours to be completed for students that have the prerequisite skills.

Prerequisite skills

It is highly recommended that students taking this course have at least one of the following skills at beginner level: python programming, statistics, or machine learning. If you don't have any of the skills, you will spend much longer taking the quizzes, working on the assignments, and trying to understand the hands-on exercises.

Course learning objectives

By the end of this course, students will be able to:

- Implement multi-neuron layers and multi-layer networks to build general nonlinear neural networks in TensorFlow.

- Diagnose model overfitting in TensorFlow using validation data, and implement and evaluate standard methods to mitigate overfitting in TensorFlow.

- Use Google Colaboratory (Google Colab) and Jupyter Notebooks to build and train neural networks.

- Apply correct vocabulary to characterize neural networks, modern AI and the history of AI development.

- Identify important applications of phenotype prediction in agricultural and life sciences.

- Define overfitting and use AI vocabulary to describe how overfitting is evaluated in practice.

Course weekly topics and quizzes:

week	topic	quiz	pts	%
1	introduction to AI in Agricultural and Life Sciences	1	2	1
		2	2	1
		3	2	1
		4	2	1
		5	2	1
		6	4	1.9
2	getting started with neural networks	7	5	2.4
		8	3	1.4
		9	9	4.3
3	foundations of neural network modeling	10	2	1
		11	4	1.9
		12	2	1
4	fundamentals of model overfitting	13	3	1.4
		14	2	1
		15	4	1.9
5	fixing overfitting with data and training	16	2	1
		17	3	1.4
		18	2	1
6	fixing overfitting with modeling	19	3	1.4
		20	4	1.9
		21	4	1.9
7	case study - quantitative phenotype prediction from genomic variation	22	4	1.9
		23	6	2.9
8	classification problems	24	3	1.4
		25	3	1.4
		26	4	1.9
9	convolutions and image classification	27	3	1.4
		28	3	1.4
		29	4	1.9

10	case study - landscape classification	30 31	4 6	1.9 2.9
11	recurrent networks	32 33 34	6 3 3	2.9 1.4 1.4
12	case study - microbiome disease association using recurrent networks	35 36	3 6	1.4 2.9
13	transformers	37 38 39	3 4 5	1.4 1.9 2.4
14 15	final project			
	Total points from quizzes		**139**	**66.5**

In addition to quizzes, there is a final project:

week	**topic**	**assignment / project**	**pts**	**%**
14 15	final project	final project	**70**	**33.5**

Total points from quizzes (139) + final project (70) = 209

Required and recommended textbooks

There is no required or recommended textbook for this course. All course materials will be provided by the instructor. A reading list is provided below.

Recommended scientific articles:

- Dias R, Torkamani A. Artificial intelligence in clinical and genomic diagnostics. Genome Medicine. 2019 Dec;11(1):1-2.
- Eli-Chukwu NC. Applications of artificial intelligence in agriculture: A review. Engineering, Technology & Applied Science Research. 2019 Aug 10;9(4):4377-83.
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- Smith KP, Wang H, Durant TJ, Mathison BA, Sharp SE, Kirby JE, Long SW, Rhoads DD. Applications of artificial intelligence in clinical microbiology diagnostic testing. Clinical Microbiology Newsletter. 2020 Apr 15;42(8):61-70.
- Koromina M, Pandi MT, Patrinos GP. Rethinking drug repositioning and development with artificial intelligence, machine learning, and omics. Omics: A Journal of Integrative Biology. 2019 Nov 1;23(11):539-48.
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Grading Scale

Course grades will be determined based on percentage of 209 total possible points. The following grading scale will be used:

Letter grade	% of total points	Points necessary
A	90.00 – 100.0	188.10-209.00
B+	85.00 – 89.99	177.65-188.09
B	80.00 – 84.99	167.20-177.64
C+	75.00 – 79.99	156.75-167.19
C	70.00 – 74.99	146.30-156.74
D+	65.00 – 69.99	135.85-146.29
D	55.00 – 64.99	114.95-135.84
E	0.00 – 54.99	0.00-114.94

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Course|New for request 18566

Info

Request: MMC 6XXX Academic Writing
Description of request: A graduate course for master's students that introduces them to the knowledge and skills necessary in various forms of academic writing.
Submitter: Jennifer Goodman rgoodman@jou.ufl.edu
Created: 5/17/2023 4:49:41 PM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
MMC

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
xxx

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Academic Writing

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Academic Writing

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the

department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
This course is designed to provide graduate students with practical knowledge and skills in various academic writing formats. The course focuses on three types of academic writing products: 1) research writing, 2) other publication writing, and 3) career/professional development materials, including but not limited to social scientific research papers, extended abstracts, conference presentations, letters to journal editors, responses to reviewers, and IRB protocols.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:

graduate standing

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course would be a required course for our research and theory master's students. It provides them foundational knowledge in academic writing by introducing students to various academic writing formats. The goal is to improve their ability to write for publication. They learn how to: read, analyze and critique academic published papers; and how to write sections of academic papers.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
By the end of the course, students should be able to:
• Develop a deeper understanding of the conventions of academic writing in the social sciences, with a particular focus on research papers.
• Improve overall writing skills, including clarity, concision, and organization.
• Learn how to effectively incorporate and cite sources in written work.
• Practice writing for different genres and audiences
• Create a strategy for identifying and addressing personal obstacles to productive writing.
• Get to know yourself better as a writer.
• Understand the distinctions between strong quantitative and qualitative writing
• Become aware of how the peer review process operates
• Practice how to give honest and helpful feedback to peers and effectively respond to feedback received
• Communicate research findings clearly and concisely
• Compose important written documents for academic careers, such as personal statements, cover letters, or CVs.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Sword, H. (2018). Air & Light & Time & Space. Harvard University Press
Boczkowski, PJ & Delli Carping, MX (2020) On writing in communication and media studies. International Journal of Communication. 14,7
Tully, M (2022)Everyday news use and misinformation in Kenya. Digital Journalism. 10,1, 109-127
Valenzuela, Sebastián et al. "The Paradox of Participation Versus Misinformation: Social Media, Political Engagement, and the Spread of Misinformation." Digital journalism 7.6 (2019): 802–823.
https://writing.wisc.edu/handbook/style/transitions/
Douglas, SJ (2020) Challenges to Writing as a Humanities-Based Media Studies Scholar. International Journal of Communication. 14,2
Gonzales, Amy L. "Improving Health in Low-Income Communities With Group Texting." Journal of communication 66.1 (2016): 82–101.
Wang, Dworkin, Zhou, Sits, Falk, Bassett, and Lydon-Staley (2021). Gendered citation practices in the field of communication. Annals of International Communication Association 45,2.
https://guides.library.upenn.edu/citationpractices/gettingstarted
Rocco, Tonette S., and Maria S. Plakhotnik. "Literature Reviews, Conceptual Frameworks, and Theoretical Frameworks: Terms, Functions, and Distinctions." Human resource development review 8.1 (2009): 120–130.
Welles (2020) On writing, surviving, and thriving in communication and media studies. International Journal of Communication, 14,2
Przeworski & Salomon. On the Art of Writing Proposals.
Berk, Harvey & Hirshleifer. (2016). Preparing a referee report: guidelines and perspectives

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
1: January 10:
• Introduction to the class.
• Basic structure of a social scientific research paper.
• Students schedule office hours' time to discuss research project ideas.
Class 2: January 17:
• In-class analysis of research paper structure.
• Each student shares their research project ideas for the semester. Group discussion.
Class 3: January 24:
• In-class analysis of paper #1.
• Focus on general structure of a research paper.
• Special attention to the writing style and structure of the abstract and the introduction.
Class 4: January 31:
• In-class analysis of paper #2.
• Focus on literature review and methods section.
Class 5: February 7:
• In-class analysis of paper #3.
• Focus on findings.
• Revision of abstract structure for assignment.
Class 6: February 14:
• Analysis of discussion sections of papers #1, #2, and #3.
Class 7: February 21:
• Revision of literature review structure for the assignment.
• Citation styles and practices.
• Group activity on students' literature review assignment.

Class 8: February 28:
• Revision of methods section for the assignment.
• Group activity on students' assignment on the methods section.
Class 9: March 7
• Revision of an introduction section for the assignment.
• How to write a research proposal.
Class 10: March 21:
• The peer review process. Good and bad practices.
• How to write a cover letter to a journal editor for a first submission of a manuscript and after obtaining a referee report.
Class 11: March 28:
• The peer review process.
• How to write a referee report.
• How to respond to a referee report.
Class 12: April 4
• Group activity about each student's research projects.
• Peer review discussions before assignment.
Class 13: April 11
• The curriculum vitae in academia. Good and bad practices.
• Analysis of examples.
Class 14: April 18:
• The cover letter for academic job applications.
• Public scholarship publications. Good and bad practices.
• Analysis of examples of each writing format in preparation for final assignment.
Class 15: April 25: Conclusion

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
100-93 A
92-90 A-
87-89 B+
83-86 B
80-82 B-
77-79 C+
73-76 C
70-72 C-
67-69 D+
63-66 D
60-62 D-
BELOW 60 E

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Dr. Celeste Wagner

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:

Yes

MMC 6936: Academic Writing
Spring 2023

(January 3rd version; syllabus is subject to change, always refer to Canvas for the most recent version)

Instructor: Dr. Celeste Wagner
Office: #3115, College of Journalism and Communications
Email: wagner.m@ufl.edu
Office Hours: Mondays, 2-3 pm or by appointment. We can meet in person in my office or over Zoom. For either case, please sign up at least 15 minutes before the start time here: https://calendly.com/celeste-wagner/office-hours
Class Time: Tuesdays 10:40 AM - 1:40 PM (WEIM3028)

Course Description and Goals

MMC 6936 is designed to provide graduate students with practical knowledge and skills in various academic writing formats, with the aim of improving their abilities to write for publication and achieve career goals. It is a hands-on, interactive course that focuses on helping students succeed in the academic writing process.

The primary objective of this course is to introduce students to various academic writing formats and assist them in developing the skills and confidence necessary to produce clear, concise, and effective academic writing. To this end, the class will provide students with the knowledge, resources, and tools they need to succeed in academic writing. The course will focus on three types of academic writing products: 1) research writing, 2) other publication writing, and 3) career/professional development materials, including but not limited to social scientific research papers, extended abstracts, conference presentations, letters to journal editors, responses to reviewers, personal statements, CVs, cover letters, and IRB protocols.

Due to the interactive and personalized nature of this seminar, assignments and class materials may be tailored to the individual backgrounds, interests, and career goals of each student. As such, the syllabus is subject to modification in order to maximize its relevance to the specific student cohort.

Course Learning Goals

By the end of the course, students should be able to:

- Develop a deeper understanding of the conventions of academic writing in the social sciences, with a particular focus on research papers.
- Improve overall writing skills, including clarity, concision, and organization.
- Learn how to effectively incorporate and cite sources in written work.
- Practice writing for different genres and audiences
- Create a strategy for identifying and addressing personal obstacles to productive writing.
- Get to know yourself better as a writer.
- Understand the distinctions between strong quantitative and qualitative writing
- Become aware of how the peer review process operates

- Practice how to give honest and helpful feedback to peers and effectively respond to feedback received
- Communicate research findings clearly and concisely
- Compose important written documents for academic careers, such as personal statements, cover letters, or CVs.

Class Values Around Diversity and Inclusion

The University of Florida's College of Journalism and Communications Department of Journalism embraces a commitment toward an intellectual community enriched and enhanced by diversity along several dimensions, including gender identity, race, ethnicity, nationality, sexuality, class, and religion.

It is very important for me that together we create an inclusive learning environment that makes everyone feel comfortable and welcome in class. Many times, learning something new entails feeling uncomfortable and challenging preconceived ideas. This is a desired outcome of any learning environment because it encourages us to think with rigor, fairness, and creativity.

The goal is not to agree on everything or find consensus as a class, but to educate ourselves, and to respectfully engage in discussions about different topics. Thus, curiosity and respect towards different viewpoints, experiences and ideas will not only be a necessary path to succeed in class but also for both personal and intellectual growth. For this, it is essential that we all exercise respect, courtesy, civil dialogue, and empathy towards one another. I am convinced that the diversity that we all bring as a group is a strength and I am committed to making efforts to include class material that reflects a diversity of experiences, contexts, and identities.

Remember that the material that we will read in this class has been written by specific individuals with their own viewpoints. I would like for everyone to feel comfortable sharing your observations and critiques about the material.

Feel free to reach out to me if there is anything that is making you feel uncomfortable in any way or if you have any suggestions on how to build this communal space for all of us to learn together. I look forward to working with all of you to achieve this.

Course Requirements

Course materials:

- As much as possible, the class will be tailored to the individual needs, career stages, and research interests of each student. As such, the reading material will be partially chosen by the students themselves, in addition to being suggested by me after getting to know one another during the first few weeks of the semester.
- The required material will be available through Canvas, either linked or attached as a PDF.
- To be able to access the material through the provided links, you will have to be connected to UF Wi-Fi or the UF network via our **VPN** software if you are off campus. Refer to this video instruction about how to connect to the VPN.
- We will be using a combination of textbook chapters, academic journal articles, book chapters, and nonacademic sources (news articles, videos, documentaries, etc.).

Assignments:

- This is a hands-on course focused on the practice of academic writing. Therefore, there will be frequent assignments geared towards improving skills and knowledge about different academic writing formats.
- Students will read, analyze and critique published academic papers. Some of these assignments will require students to select their own material to analyze, depending on their interests.
- Students will practice writing different sections of a research paper. If students are already working on a research project, it is convenient to work on that material, unless it is a finished draft ready to submit to a conference or journal.
- Students will practice different forms of academic writing related to publishing. For example, letters to journal editors, writing peer reviews, writing responses to reviewers, etc.
- Students will also get familiarized with different forms of career writing, depending on their career goals and stages. For example, cover letters for academic job applications, etc.
- Although the concept of "good writing" is subjective, this course will focus on mastering the most standardized formats of academic writing in the social sciences, with an emphasis on producing clear, concise, and succinct written work.
- In academic settings, meeting deadlines is crucial to the success of any project, and this class is no exception. It is expected that students will adhere to all deadlines set forth in the course syllabus. Failing to meet deadlines is not only detrimental to your own progress, but it can also be unfair to your fellow classmates. If you foresee any issues with meeting a deadline, it is imperative that you inform me as soon as possible to make arrangements.

Class attendance and participation:

- Students should come to class having read/listened/watched all class material for that class.
- Students are allowed to miss 1 class without medical justification but are expected to notify me as soon as possible.
- This is a small class, and we will do activities in class, so your engagement and participation are crucial for the class success.
- If you are attending a conference in person and must miss class, please let me know as soon as possible.
- Class participation won't be graded, but it is highly encouraged.

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.

Course Evaluation

At the end of the class, you will have to complete a course evaluation online via GatorEvals. Course evaluations are very important, as they will help me plan and adjust the syllabus for next iterations of this class. They are also important for future students who will indirectly benefit from your feedback. It is expected that students will offer professional and respectful feedback on the quality of instruction in this course. Guidance on how to give feedback in a professional and respectful manner is available. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or online. Summaries of course evaluation results are available to students online.

Academic Honesty

It is expected that all students will respect the UF student honor code and conduct code. The following are some of the potential issues that are particularly pertinent when writing academic texts:

- Misrepresentation: any practice that aims at deceiving in relation to academic practices. For example, lying about data collection processes.
- Fabrication: Cases of falsification of original or third-party data.
- Plagiarism: Plagiarism is the act of using someone else's work or ideas as your own, without proper attribution or citation. This can take the form of copying and pasting text from a source, paraphrasing a source without giving credit, or using someone else's ideas or research in your work without acknowledging the original source. When in doubt, please review the plagiarism guide by UF's Library: https://guides.uflib.ufl.edu/copyright/plagiarism

Assignments

In the class, we will do the following assignments. For each one of them, students will receive specific and clear instructions on Canvas, as well as resources and/or examples that they can draw from.

Research writing:

1. **Summary of existent research project:** students are required to submit a summary of a research project that they intend to work on throughout the semester. This may be a paper for which data has already been collected but has not yet been written, a research proposal for a future paper, or a paper that could potentially be included in their MA/PhD dissertation. It is important to note that the project summary should not be a fully completed manuscript ready for submission. The purpose of this assignment is to allow students to consider a project at the beginning of the class that can be used for various assignments throughout the semester. It is recommended that students choose an existing project in order to make meaningful progress on a topic that will be valuable for their academic advancement. In the event that a student is unsure about how to select an appropriate project, office hours will be available for discussion and guidance. (~200-400 words)

2. **Analysis of published research papers**: Based on shared interests between students in the class, we will select papers to analyze individually before the class and collectively during the class. We will read qualitative and quantitative papers in the social sciences. Students will have to hand in a one-page analysis based on guiding questions about the writing style and structure of the paper. The goal of these assignments is to identify the standardized format of academic writing when it comes to social scientific research papers. (~500-600 words each)

3. **Writing abstract of existent paper**: Students will have to read a paper I will select, but without reading the abstract. Then, they will have to write the abstract themselves. Students make a commitment *not* to google the abstract in advance. The goal of this assignment is to become more proficient in the reading of academic papers and in the writing of abstracts. (200 words)

4. **Writing a literature review:** Students will write a literature review for a social scientific research paper. Ideally, they work on their selected project from assignment #1. Students should discuss with me in advance during office hours the literature they will be reading, sources they are including, etc. Students will use the examples analyzed in assignment #2 to work on their own project. The goal of this assignment is to become more proficient in the reading and writing of literature reviews for social scientific papers. (~1000 words).

5. **Writing a methods section:** Students will write a methods section for a manuscript of a social scientific research paper. Ideally, they work on their selected project from assignment #1. Students will use the examples analyzed in assignment #2 to work on their own project. The goal of this assignment is to become more proficient in the reading and writing of methods sections of social scientific research papers. Word count will vary whether it is a quantitative or qualitative project.

6. **Writing an introduction:** Students will write the introduction section for a manuscript of a social scientific research paper. Ideally, they work on their selected project from assignment #1. The goal of this assignment is to become more proficient in the reading and writing of introduction sections of social scientific research papers. (~500 words)

Other publication writing:

7. **Writing a cover letter to a journal editor for the first and R1 submissions**: Students will write a letter to a journal editor for a first submission of a manuscript, and for the submission of a revised version of the manuscript, after receiving a “revise and resubmit.” The goal of this activity is to become familiarized and develop your own personal template on how to communicate with a journal editor.

8. **Writing a referee report for a journal submission and responding to one:** Students will write an alleged anonymous peer review about an unpublished manuscript. Ideally,

students will review a classmate's work submitted for assignments #4 to #6. Students will then write a letter to respond to their peer review as if they had addressed the changes suggested by the reviewer after an "R&R."

Career/professional development writing:

9. **CV**: Students will write their own CVs depending on their career goals and stages and will review a classmate's CV.

10. **Cover letter for job application OR public scholarship**: Students can choose between writing a cover letter for a job application in the academic job market OR write a research-based piece for a media publication (for e.g., something that could be published at *The Conversation*.)

Grading

Deadlines and grades

Assignment	Deadlines	Final grade percentage
#1 Summary of existent research project	January 17	5%
#2 Analysis of published research papers	January 24 (paper #1) January 31 (paper #2) February 7 (paper #3)	15%
#3 Writing abstract of existent paper	February 14	10%
#4 Writing a literature review	February 28	15%
#5 Writing a methods section	March 7	10%
#6 Writing an introduction	March 21	10%
#7 Writing a cover letter to a journal editor for the first and R1 submissions	March 28	5%
#8 Writing a peer review for a journal submission and responding to a peer review	April 4 (peer review) April 11 (response to peer review)	15%
#9 CV	April 18	5%
#10 Cover letter OR public scholarship	April 25	10%

Grading Scale

Letter grade	Percent	Letter grade	Percent	Letter grade	Percent	Letter grade	Percent
		B+	89-87%	C+	79-77%	D+	69-67%

A	100-93%	B	86-83%	C	76-73%	D	66-63%
A-	92-90%	B-	82-80%	C-	72-70%	D-	62-60%

Class Schedule

Class 1: January 10:

- Introduction to the class.
- Basic structure of a social scientific research paper.
- Students schedule office hours' time to discuss research project ideas.

Class 2: January 17:

- In-class analysis of research paper structure.
- Each student shares their research project ideas for the semester. Group discussion.

Class 3: January 24:

- In-class analysis of paper #1.
- Focus on general structure of a research paper.
- Special attention to the writing style and structure of the abstract and the introduction.

Class 4: January 31:

- In-class analysis of paper #2.
- Focus on literature review and methods section.

Class 5: February 7:

- In-class analysis of paper #3.
- Focus on findings.
- Revision of abstract structure for assignment.

Class 6: February 14:

- Analysis of discussion sections of papers #1, #2, and #3.

Class 7: February 21:

- Revision of literature review structure for the assignment.
- Citation styles and practices.
- Group activity on students' literature review assignment.

Class 8: February 28:

- Revision of methods section for the assignment.
- Group activity on students' assignment on the methods section.

Class 9: March 7

- Revision of an introduction section for the assignment.
- How to write a research proposal.

Class 10: March 21:

- The peer review process. Good and bad practices.
- How to write a cover letter to a journal editor for a first submission of a manuscript and after obtaining a referee report.

Class 11: March 28:

- The peer review process.
- How to write a referee report.
- How to respond to a referee report.

Class 12: April 4

- Group activity about each student's research projects.
- Peer review discussions before assignment.

Class 13: April 11

- The curriculum vitae in academia. Good and bad practices.
- Analysis of examples.

Class 14: April 18:

- The cover letter for academic job applications.
- Public scholarship publications. Good and bad practices.
- Analysis of examples of each writing format in preparation for final assignment.

Class 15: April 25: Conclusion

Course|New for request 18790

Info

Request: MMC 6XXX Computer-Mediated Communications
Description of request: A new course on Computer-Mediate Communications. Since the 1970s, computer-mediated communication (CMC) has developed for more than 40 years. Starting as a direct comparison to face-to-face communication, CMC theories have offered important insights for our understanding of how certain technology features in computing environments deliver messages, how people form bonds with each other online, and how unique networks are created through computing systems. The concept of “mediation” has challenged some of the basic assumptions of how we form relationships with each other. This course will cover topics such as interpersonal and hyper-personal models of communication, spatial and social presence, online dating, virtual reality, augmented reality, media addiction, location-based mobile media, and future CMC development. This course is a seminar-based course.
Submitter: Jennifer Goodman rgoodman@jou.ufl.edu
Created: 8/22/2023 5:12:42 PM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
MMC

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
* *

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
xxx

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Computer-Mediate Communication

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Computer-Mediate Communication

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Seminar

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Computer-mediated communication (CMC) explores our understanding of how certain technology features in computing environments deliver messages, how people form bonds with each other online, and how unique networks are created through computing systems. Course topics include: interpersonal and hyper-personal models of communication, spatial and social presence, online dating, virtual reality, augmented reality, media addiction, location-based mobile media, and future CMC development.

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
n/a

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
Graduate standing.

Completing Prerequisites:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
Technology and communications is one of the largest growth areas in our field in the past two decades. Courses such as this provide students with theoretical understanding to engage with and research "new" media and technology from a communication perspective.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

- Have a deep understanding of how mediated communication affects communication processes
- Discuss and critically evaluate various perspectives/theoretical frameworks in mediated communication
- Develop your own perspectives and original ideas about mediated communication phenomena

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

READING LIST
The readings with star signs are recommended but not mandatory.

Week 3 Nature of CMC:

1. Herring, S. C. (2004). Slouching toward the ordinary: Current trends in computer-mediated communication. New Media & Society, 6(1), 26-36.

2. Licklider, J. C., & Taylor, R. W. (1968). The computer as a communication device. Science and Technology, 76(2), 1-3.

3. *Walther, J. B., Gay, G., & Hancock, J. T. (2005). How do communication and technology researchers study the internet? Journal of Communication, 55(3), 632-657.

4. Parks, M. (2009). What will we study when the Internet disappears? Journal of Computer-Mediated Communication, 14(3), 724-729.

5. *Yzer, M. C., & Southwell, B. G. (2008). New communication technologies, old questions. American Behavioral Scientist, 52(1), 8-20.

Week 4 Impersonal Communication

1. Dennis, A. R., & Kinney, S. T. (1998). Testing media richness theory in the new media: The effects of cues, feedback, and task equivocality. Information Systems Research, 9(3), 256-274.

2. *Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. American Psychologist, 39(10), 1123.

3. Short, J., Williams, E., & Christie, B. (1976). Theoretical approaches to differences between media. The Social Psychology of Telecommunications, 61-76.

4. Clark, H. H., & Brennan, S. E. (1991). Grounding in communication. Perspectives on Socially Shared Cognition, 13, 127-149.

Week 5 Interpersonal and Hyper-personal Communication

1. Lew, Z., Walther, J. B., Pang, A., & Shin, W. (2018). Interactivity in online chat: conversational contingency and response latency in computer-mediated communication. Journal of Computer-Mediated Communication, 23, 201-221.

2. Walther, J. B., Van Der Heide, B., Ramirez, A., Burgoon, J. K., & Peña, J. (2015). Interpersonal and hyper-personal dimensions of computer-mediated communication. The handbook of the psychology of communication technology, 1, 22.

3. Walther, J. B. (2007). Selective self-presentation in computer-mediated communication: Hyperpersonal dimensions of technology, language, and cognition. Computers in Human Behavior, 23(5), 2538-2557.

Week 6 SIDE:

1. Xu, K., & Lombard, M. (2017). Persuasive computing: Feeling peer pressure from multiple computer agents. Computers in Human Behavior, 74, 152-162.

2. *Lea, M., Spears, R., & de Groot, D. (2001). Knowing me, knowing you: Anonymity effects on social identity processes within groups. Personality and Social Psychology Bulletin, 27(5), 526-537.

3. Spears, R., & Postmes, T. (2015). Group identity, social influence, and collective action online. The Handbook of the Psychology of Communication Technology, John Wiley & Sons, Oxford, 23-46.

4. Walther, J. B., DeAndrea, D., Kim, J., & Anthony, J. C. (2010). The influence of online comments on perceptions of antimarijuana public service announcements on YouTube. Human Communication Research, 36(4), 469-492.

Week 7 Social Presence & Spatial Presence

1. Lombard, M., & Ditton, T. (1997). At the heart of it all: The concept of presence. Journal of computer-mediated communication, 3(2), JCMC321.

2. Lee, K. M. (2004). Presence, explicated. Communication theory, 14(1), 27-50.

3. Biocca, F., Harms, C., & Burgoon, J. K. (2003). Toward a more robust theory and measure of social presence: Review and suggested criteria. Presence: Teleoperators & virtual environments, 12(5), 456-480.

4. *Lee, K. M. (2004). Why presence occurs: Evolutionary psychology, media equation, and presence. Presence: Teleoperators & Virtual Environments, 13(4), 494-505.

5. *Lombard, M., Lee, S., Sun, W., Xu, K., & Yang, H. (2017). Presence theory. In P. Roessler, C. Hoffner, & L. Van-Zoonen (Eds.), International encyclopedia of media effects, pp. 1-13. Wiley-Blackwell.

Week 8 Presence and VR

1. Yee, N., & Bailenson, J. (2007). The Proteus effect: The effect of transformed self-representation on behavior. Human communication research, 33, 271-290.

2. Fox, J., & Bailenson, J. N. (2009). Virtual self-modeling: The effects of vicarious reinforcement and identification on exercise behaviors. Media Psychology, 12(1), 1-25.

3. Won, A.S., Haans, A., IJsselsteijn, W.A., & Bailenson J.N., (2014). A framework for interactivity and presence in novel bodies. Interacting with Presence: HCI and the Sense of Presence in Computer-mediated Environments, 57-69.

4. *Fox, J., Bailenson, J., & Binney, J. (2009). Virtual experiences, physical behaviors: The effect of presence on imitation of an eating behavior. Presence, 18, 294-303.

5. *Won, A. S., Bailenson, J., Lee, J., & Lanier, J. (2015). Homuncular flexibility in virtual reality. Journal of Computer-Mediated Communication, 20, 241-259.

Week 9 Presence and VR/AR

1. Bailenson, J. N., & Yee, N. (2005). Digital chameleons: Automatic assimilation of nonverbal gestures in immersive virtual environments. Psychological Science, 16(10), 814-819.

2. Bailenson, J., & Segovia, K. Y. (2009). Virtual doppelgangers: Psychological effects of avatars who ignore their owners. In W. S. Bainbridge (Ed.), Online worlds: Convergence of the real and the virtual, pp. 175-186. Springer.

3. Liao, T., Yang, H., Lee, S., Xu, K., & Bennett, S. M. (2020). Augmented criminality: How people process in situ augmented reality crime information in relation to space/place. Mobile Media & Communication, 2050157919899696.

Week 10 AR and Location-based Mobile Media:

1. De Souza e Silva, A., & Frith, J. (2010). Locative mobile social networks: Mapping communication and location in urban spaces. Mobilities, 5(4), 485-505.

2. Frith, J. (2014). Communicating through location: The understood meaning of the Foursquare check-in. Journal of Computer-Mediated Communication, 19(4), 890-905.

3. Licoppe, C. (2013). Merging mobile communication studies and urban research: Mobile locative media, “onscreen encounters” and the reshaping of the interaction order in public places. Mobile Media & Communication, 1(1), 122-128.

4. *Liao, T., & Humphreys, L. (2015). Layar-ed places: Using mobile augmented reality to tactically reengage, reproduce, and reappropriate public space. New Media & Society, 17, 1418-1435.

Week 11 Media Addiction:

1. Griffiths, M. D., & Kuss, D. J. (2015). Online Addictions: Gambling, video gaming, and social networking. The handbook of the psychology of communication technology, 32, 384-403.

2. Kim, J., & Haridakis, P. M. (2009). The role of Internet user characteristics and motives in explaining three dimensions of Internet addiction. Journal of Computer-Mediated Communication, 14, 988-1015.

3. LaRose, R., Lin, C. A., & Eastin, M. S. (2003). Unregulated Internet usage: Addiction, habit, or deficient self-regulation? Media Psychology, 5, 225-253.

Week 12 CMC 3.0: Future CMC

1. Carr, C. T. (2020). CMC is dead, long live CMC!: Situating computer-mediated communication scholarship beyond the digital age. Journal of Computer-Mediated Communication.

2. Xu, K., & Liao, T. (2020). Explicating cues: A typology for understanding emerging media technologies. Journal of Computer-Mediated Communication.

3. Hancock, J. T., Naaman, M., & Levy, K. (2020). Computer-mediated communication: Definition, research agenda, and ethical considerations. Journal of Computer-Mediated Communication.

4. Campbell, S. W. (2020). Cutting the cord: Social and scholarly evolutions as CMC goes mobile. Journal of Computer-Mediated Communication.

*Week 13 Online Deception/Dating

1. Toma, C. L., Hancock, J. T., & Ellison, N. B. (2008). Separating fact from fiction: An examination of deceptive self-presentation in online dating profiles. Personality and Social Psychology Bulletin, 34, 1023-1036.

2. Ellison, N., Heino, R., & Gibbs, J. (2006). Managing impressions online: Self-presentation processes in the online dating environment. Journal of computer-mediated communication, 11(2), 415-441.

3. *Chan, L. S. (2017). Who uses dating apps? Exploring the relationships among trust, sensation-seeking, smartphone use, and the intent to use dating apps based on the integrative model. Computers in Human Behavior, 72, 246-258.

4. Hancock, J. T., & Toma, C. L. (2009). Putting your best face forward: The accuracy of online dating photographs. Journal of Communication, 59, 367-386.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

1 1/10 Introduction to course
2 1/17 Reading week due to conference
3 1/24 Nature of CMC theory and research
4 1/31 Impersonal, interpersonal, and hyper-personal (1)
5 2/7 Impersonal, interpersonal, and hyper-personal (2)
6 2/14 Social identity model of deindividuation effects
7 2/21 Social presence and spatial presence
8 2/28 Presence and virtual reality
9 3/7 Presence and augmented reality
3/14 Spring break
10 3/21 Augmented reality and location-based mobile media
11 3/28 Media addiction
12 4/4 CMC 3.0: Future CMC
13 4/11 *Online dating and online deception + final presentation
14 4/18 Wrap up and final presentation
15 4/25 Final paper submission

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

A = 93-100 A- = 90-92.99
B+ = 87-89.99 B = 83-86.99 B- = 80-82.99
C+ = 77-79.99 C = 73-76.99 C- = 70-72.99
D+ = 67-69.99 D = 63-66.99 D- = 60-62.99
E = 0 – 59.99%

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Kun Xu

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

University of Florida
College of Journalism and Communications

Computer-Mediated Communication
MMC 6XXX– Spring 2024

Instructor: Kun Xu
E-Mail: kun.xu@ufl.edu
Office location: Weimer 3065
Office Hours:

COURSE DESCRIPTION

Since the 1970s, computer-mediated communication (CMC) has developed for more than 40 years. Starting as a direct comparison to face-to-face communication, CMC theories have offered important insights for our understanding of how certain technology features in computing environments deliver messages, how people form bonds with each other online, and how unique networks are created through computing systems. The concept of "mediation" has challenged some of the basic assumptions of how we form relationships with each other. This course will cover topics such as interpersonal and hyper-personal models of communication, spatial and social presence, online dating, virtual reality, augmented reality, media addiction, location-based mobile media, and future CMC development. This course is a seminar-based course.

COURSE OBJECTIVES

By the end of the semester, your success in this class will be indicated by how well you can:

- Have a deep understanding of how mediated communication affects communication process
- Discuss and critically evaluate various perspectives/theoretical frameworks in mediated communication
- Develop your own perspectives and original ideas about mediated communication phenomena

Required Readings:

All readings including links to online sources will be available on Canvas (elearning.ufl.edu).

Recommended readings:

Sundar, S. (2015). *The handbook of the psychology of communication technology.* Chichester, England: Wiley Blackwell.

Outcomes Assessment:

Class discussion– 20%
Main concepts/theories presentation X 2 – 20%

Paper review X 2 – 20%
Final research paper and presentation – 40%

Grading Criteria:

A = an earned grade that represents outstanding and exceptional work; keep working and submit to conferences/journals

B = an earned grade indicating competent, above average work; need some conceptual modification for conference submission and journal submission

C = an earned grade for work that is average and/or merely fulfills the basics of the assignment and lacks some important connection to the course material; need a thorough revision to enhance the work.

D = an earned grade for work that is below average and/or barely fulfills the basics of the assignment and lacks important connection to the course material; need a complete revision to enhance the work.

E = an earned failing grade for late work, poorly executed work

	A = 93-100	A- = 90-92.99
B+ = 87-89.99	B = 83-86.99	B- = 80-82.99
C+ = 77-79.99	C = 73-76.99	C- = 70-72.99
D+ = 67-69.99	D = 63-66.99	D- = 60-62.99
	E = 0 – 59.99%	

ASSIGNMENTS

Class discussion and participation

- This is a seminar-based course. You **must** read assigned readings completely and actively engage in class discussion each week. Discussion is a very important part of your learning process.

Main concepts/theories presentation X 2

- Students will assume the role of lecturers/discussion leaders twice in the semester. The topics will be assigned at the beginning of the semester. The discussion leaders are responsible for introducing the key concepts/theories/findings of the readings. Also, provide a few discussion questions and reflections the articles. The discussion leaders should post their major points on our class Google doc. Post the prompts by Monday noon. Walk us through these main ideas.
- The discussion leader should assume that everyone has read the articles and is prepared for discussion. The discussion should lead to better understanding of mediated communication theory and research. When leading discussion, try to synthesize or integrate other readings assigned for this class or ideas from outside this class.
- The whole class may post questions or make comments on the Google Doc, or post relevant links/articles on the doc to facilitate discussion.
- Here are some general ideas about what you can look for as you read.
    - What are the main theoretical constructs under investigation
    - How are these concepts being tested (operationalized) in the empirical research
    - Issues you did not understand within the theories and/or readings
    - Portions of the readings you especially agree with/disagree with
    - Broader theoretical issues raised by the readings

- Empirical and/or theoretical questions raised by the readings
- How the readings relate to or contradict previous theory and research in the field
- What are the implications (practical or theoretical) of the conclusions reached by the authors?
- Are there any flaws in the studies and/or arguments being made?
- Are you convinced?
- What future research is needed in this area?
- What questions and/or concerns occurred to you as you read?

Paper Review X 2

- Approaches to computer-mediated communication derive from multiple areas (e.g., interpersonal communication, psychology, information science, social constructive perspectives). As our class will primarily focus on the technology perspective, we need more lens to looking into CMC. This paper review requires you to first look for an interpersonal communication theory, then find an appropriate journal article that applies the theory in a new media context. Present to us what this theory is about, what the research context is, what the research questions and hypotheses are, what some of the major results are, how similar or different it is when applied to the new media context, and how this theory may be further developed/expanded (theory contribution). Also present to us some of the limitations of this study. Write a one-page single spaced summary of this article and deliver the presentation to teach us about the theory.

Final Research Paper

Option 1: Research Paper/Proposal

- Write a full research paper/proposal related to any mediated communication phenomena. If you are working on a full research paper, it should be about 20 – 30 pages including references, tables, and figures. If you are working on a research proposal, it should be about 10-14 pages long including introduction, literature review, hypotheses/research questions, methods, and references. Use APA format. You can take any approach to your study (e.g., quant, qual, critical, etc.).
- You can choose to coauthor with classmates. But in that case, you should submit a full research paper that can be considered for conference presentation. You can only collaborate with at most one classmate (i.e., two authors in total).
- Here is a general guideline about the structure of your paper:
  - Purpose and rationale of the study
  - Literature review: What needs to be investigated? What research gap existed in prior research? What is the logic of your proposed hypotheses and RQs?
  - Hypotheses and research questions
  - Research methods: Include sample, procedures, measures, data analysis plans etc.
  - Results and discussion (for a full research paper): What are the results? What do the results mean? What can you conclude based on results? What theoretical contribution is there?

Option 2: Theory/Concept Review

- Write a 10-14-page review of literature on a computer-mediated communication concept/theory of your choice. The review should include at least 25 references and serve as a context for further inquiry. Keep these questions in mind when you do the review: What is the concept about? How has it been defined in prior literature? What are some of the differences? How has it been measured? What are the contexts for using this concept? What are the prior research gaps and what are the future research directions?

COURSE POLICIES

Attendance Policy:

- Class attendance is required unless you have an excused absence. What qualifies for excused absences as well as make up policy is found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Late work:

- Assignments are due by the date and time indicated on the course schedule. The official submission record will be the date and time recorded on Canvas. Deadlines (times as well as dates) are firm. Exceptions will be granted only for excused absences

Classroom Etiquette

- The class does not tolerate harassment. Harassment consists of abusive behavior directed toward an individual or group because of race, ethnicity, ancestry, national origin, religion, gender, sexual orientation, age, physical or mental disability, including learning disability, mental retardation and past/present history of a mental disorder.
- Act professional when contacting the instructor. For example, emails should include subjects. Put the course name in the subject line. Do not expect an immediate answer to email questions. I try best to reply within 48 hours.

Academic Honesty/Policy on Plagiarism

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conducthonor- code/) specifies a number of behaviors that are in violation of this code and the possible sanctions.

Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether the effort is successful. Breaches of academic integrity include – but are not limited to – the following:

- Use of materials (whether verbatim or paraphrased) from another author without citation or attribution.

- Extensive use of materials from past assignments without permission of your instructor.
- Extensive use of materials from assignments in other classes without permission of your instructor.
- Fabricating information for assignments, whether for publication or not.
- Fabricating sources for assignments, whether for publication or not.
- Fabricating quotes in assignments, whether for publication or not..

When in doubt about what constitutes a violation of academic integrity procedures, contact me.

Accommodations for Special Needs:

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/."

Tentative Course Schedule

	Date	**Topic**	**Note**
1	1/10	Introduction to course	
2	1/17	Reading week due to conference	
3	1/24	Nature of CMC theory and research	
4	1/31	Impersonal, interpersonal, and hyper-personal (1)	
5	2/7	Impersonal, interpersonal, and hyper-personal (2)	
6	2/14	Social identity model of deindividuation effects	
7	2/21	Social presence and spatial presence	Outline due
8	2/28	Presence and virtual reality	
9	3/7	Presence and augmented reality	
	3/14	Spring break	
10	3/21	Augmented reality and location-based mobile media	
11	3/28	Media addiction	Literature review due
12	4/4	CMC 3.0: Future CMC	
13	4/11	*Online dating and online deception + final presentation	
14	4/18	Wrap up and final presentation	
15	4/25	Final paper submission	Final paper due

Note: Changes that occur to the syllabus will be announced in class or on Canvas.

Course|New for request 18587

Info

Request: MMC 6XXX Critical and Cultural Theories in Media Studies
Description of request: Permanent number for graduate course. Students will be introduced to the theoretical underpinnings of critical and cultural approaches to studying media. The course will trace the origins of critical/cultural and explores these developments to various schools of thought. Themes covered will include political economy, critical race theory, feminist media studies (both US centered and transnational), media globalization studies and cultural histories, to name a few. Students will engage with a broad range of readings that map the interventions of the field and of the critical/cultural scholars who contribute to the study of media.
Submitter: Jennifer Goodman rgoodman@jou.ufl.edu
Created: 6/5/2023 11:09:33 AM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
MMC

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area.

*Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment. *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Critical and Cultural Theories in Media Studies

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Critical/Cultural Media Theory

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:

No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Seminar

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Students will be introduced to the theoretical underpinnings of critical and cultural approaches to studying media. The course will trace the origins of critical/cultural and explores these developments to various schools of thought. Themes covered will include political economy, critical race theory, feminist media studies (both US centered and transnational), media globalization studies and cultural histories, to name a few. Students will engage with a broad range of readings that map

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
n/a

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
Graduate standing.

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
This course provides concepts and methods necessary for students who want to study media from a critical/cultural lens. It is also key to those who study media using qualitative methodologies. Critical theory and cultural studies are a key approaches of study in one branch of mass communication with journals devoted to this type of research such as discourse studies, discourse & communication, and critical studies in mass communication among others.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
? Demonstrate understanding of the concepts, methodologies, and debates in cultural studies and critical theory
? Articulate the significance of foundational concepts in cultural studies and critical theory in

relation to contemporary constellations of power, knowledge, identity, and resistance, particularly as pertaining to media and communications.
? Use concepts from cultural studies and critical theory to analyze the ways in which prevailing dynamics of power are reproduced and contested in communication
? Demonstrate the ability to apply and critically analyze concepts from cultural studies and critical theory in well-researched communications papers.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
• Durham, Meenakshi G. & Kellner, Douglas M. (2012). Media and cultural studies: KeyWorks (second edition). Malden, Mass.: Blackwell

Other readings from instructor
NPR, “Ideas that make up critical race theory have been around
long before it got its name” https://www.npr.org/2022/09/13/1122621454/ideas-that- make-up-critical-race-theory-have-been-around-long-before-it-got-its-
Tampa Bay Times, https://www.tampabay.com/opinion/2022/10/20/what-critical-theory- is-actually-all-about-column/
Hall, Cultural Studies Two Paradigms Popp, Cultural History and Media Studies Debord, The Commodity as Spectacle
Marx & Engels, The Ruling Class and the Ruling Ideas Bourdieu, The Forms of Capital
Smythe, Audience Commodity
Forsythe, Frantz Fanon -- The Marx of the Third World
Gramsci, (i) History of the Subaltern Classes; (ii) The Concept of “Ideology”; (iii) Cultural Themes: Ideological Material
Bates, Gramsci and the Theory of Hegemony-
Randall Pearson: Framing Black identity, masculinity,
Horkheimer and Adorno, The Culture Industry
Habermas, The Public Sphere-
Fraser, Rethinking the Public Sphere
Lipsitz, How Racism Takes Place
Althusser, Ideology and Ideological State Apparatuses
Cacho, Social Death
Herman& Chomsky, Manufacturing
McLuhan, Medium is the Message
Kellner, Media Spectacle and Domestic Terrorism
Lu & Steele, Joy is resistance
Radway, The Readers and their Romances
hooks, Eating the Other
Davis, Black Rapist Myth,
Grant et. al., Selling Breonna
Said, Orientalism
Crenshaw, Demarginalizing
Mulvey, Visual Pleasure and Narrative Cinema
Bordo, Unbearable Weight
Cabas & Grant, No Longer Interested
Jenkins & Finnman, Gender Trouble in the Workplace
Lievrouw, Alternative and Activist New Media
Jackson & Welles, Hijacking #myNYPD
Altheide, Media Logic, Social Control and Fear
Brock, From the Blackhand Side
Lazar, Critical Feminist Discourse
Foucault, Right of Death and Power over Life
Ahmed, The Cultural Politics of Emotion
McRobbie, Feminism, Postmodernism and the “Real Me”
Durham, Scene of the Crime

Schiller, The Situation of Transnational
Appadurai, Disjuncture and Difference in the Global Cultural Economy
Anzaldua, The Homeland/Aztlán

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
COURSE SCHEDULE
This course schedule is tentative – any changes will be announced in class and/or over email.
Week 1: (Jan. 11) Introduction to syllabus, course and each other
Frankfurt School and Critical Theory
NPR, "Ideas that make up critical race theory have been around
long before it got its name" https://www.npr.org/2022/09/13/1122621454/ideas-that- make-up-critical-race-theory-have-been-around-long-before-it-got-its-
Tampa Bay Times, https://www.tampabay.com/opinion/2022/10/20/what-critical-theory- is-actually-all-about-column/

Week 2: (Jan. 18) Ideology and Cultural Studies Hall, Cultural Studies Two Paradigms Popp, Cultural History and Media Studies Debord, The Commodity as Spectacle
WEEK 2 QUESTIONS DUE

Week 3: (Jan. 25) Marx, Marxism and Marxist Theory
Marx & Engels, The Ruling Class and the Ruling Ideas Bourdieu, The Forms of Capital
Smythe, Audience Commodity
Forsythe, Frantz Fanon -- The Marx of the Third World
WEEK 3 QUESTIONS DUE

Week 4: (Feb. 1) Hegemony Lull, Hegemony
Gramsci, (i) History of the Subaltern Classes; (ii) The Concept of "Ideology"; (iii) Cultural Themes: Ideological Material
Bates, Gramsci and the Theory of Hegemony-
Luisi, Randall Pearson: Framing Black identity, masculinity,
WEEK 4 QUESTIONS DUE

Week 5: (Feb. 8) The Frankfurt School
Horkheimer and Adorno, The Culture Industry Habermas, The Public Sphere-
Fraser, Rethinking the Public Sphere Lipsitz, How Racism Takes Place
WEEK 5 QUESTIONS DUE

Week 6: (Feb. 15) Althusserian Theory
Althusser, Ideology and Ideological State Apparatuses Cacho, Social Death
Herman& Chomsky, Manufacturing
WEEK 6 QUESTIONS DUE
Research Proposal Due by Wednesday at noon.
Week 7: (Feb. 22) Technology and Spectacle
McLuhan, Medium is the Message
Kellner, Media Spectacle and Domestic Terrorism Lu & Steele, Joy is resistance
WEEK 7 QUESTIONS DUE

Week 8: (March 1) The Politics of Representation Radway, The Readers and their Romances hooks, Eating the Other
Davis, Black Rapist Myth Grant et. al., Selling Breonna
WEEK 8 QUESTIONS DUE

Week 9: (March 8) Race and Media Studies
Said, Orientalism Crenshaw, Demarginalizing

WEEK 9 QUESTIONS DUE

Week 10: SPRING BREAK

Week 11: (March 22) Feminist and Queer Media Studies Mulvey, Visual Pleasure and Narrative Cinema Bordo, Unbearable Weight
Cabas & Grant, No Longer Interested
Jenkins & Finnman, Gender Trouble in the Workplace
WEEK 11 QUESTIONS DUE

Week 12: (March 29) Media and Social Change Lievrouw, Alternative and Activist New Media Jackson & Welles, Hijacking #myNYPD Altheide, Media Logic, Social Control and Fear Brock, From the Blackhand Side
WEEK 12 QUESTIONS DUE

Week 13: (April 5) Postmodernism and Cultural Studies Lazar, Critical Feminist Discourse Foucault, Right of Death and Power over Life Ahmed, The Cultural Politics of Emotion McRobbie, Feminism, Postmodernism and the “Real Me”
WEEK 13 QUESTIONS DUE

Week 14: (April 12) Globalization and Transnationalism in Media Studies Appadurai, Disjuncture and Difference in the Global Cultural Economy Anzaldua, The Homeland/Aztlán
Schiller, The Situation of Transnational Studies Durham, Scene of the Crime
WEEK 14 QUESTIONS DUE

Week 15: (April 19) Postcolonialism in Media Studies
Mohanty, Under Western Eyes: Feminist Scholarship and Colonial Discourses Plumwood, Dualism: the logic of colonization
Dirlik, The Postcolonial Aura
WEEK 15 QUESTIONS DUE

Week 16: (April 26) Presentations

Submit annotated bibliography.

Week 17: Finals Week

Research papers due on XXX.

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

Final %age	Grade
98-100%	A+
93-97%	A
90-92%	A-
88-89%	B+
83-87%	B
80-82%	B-
78-79%	C+

73-77% C
70-72%

C-
68-69% D+
63-67% D
60-62%

D-
0-59% E

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Rachel Grant

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

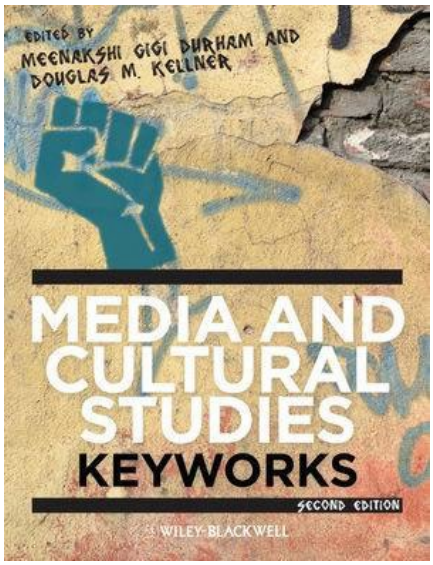
Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes



Critical and Cultural Theories in Media Studies

Spring 2022
Instructor: Dr. Rachel Grant
Office: xxxxx
Phone number: xxxxxx
Email: xxxxx
Office hours: xxxx

Course Description

This course will introduce students to the theoretical underpinnings of critical and cultural approaches to studying media. The course will trace the origins of critical/cultural and explores these developments to various schools of thought. Themes covered will include political economy, critical race theory, feminist media studies (both US centered *and* transnational), media globalization studies and cultural histories, to name a few. Students will engage with a broad range of readings that map the interventions of the field and of the critical/cultural scholars who contribute to the study of media.

Required Text:

- Weekly readings provided by instructor
- Durham, Meenakshi G. & Kellner, Douglas M. (2012). Media and

cultural studies: KeyWorks (second edition). Malden, Mass.: Blackwell.

Course Objectives

- Demonstrate understanding of the concepts, methodologies, and debates in cultural studies and critical theory
- Articulate the significance of foundational concepts in cultural studies and critical theory in relation to contemporary constellations of power, knowledge, identity, and resistance, particularly as pertaining to media and communications.
- Use concepts from cultural studies and critical theory to analyze the ways in which prevailing dynamics of power are reproduced and contested in communication
- Demonstrate the ability to apply and critically analyze concepts from cultural studies and critical theory in well-researched communications papers.

Canvas:

Canvas will contain the readings for the course, detailed assignment descriptions, and additional resources that will be helpful to you. You will also use it to submit your written assignments and to keep track of your grade in the course. If you are having difficulty accessing Canvas or a particular reading, please let me know as soon as possible.

Attendance Policy:

Class attendance is required unless you have an excused absence. What qualifies for excused absences as well as make up policy is found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Late work:

Assignments are due by the date and time indicated on the course schedule. The official submission record will be the date and time recorded on Canvas. Deadlines (times as well as dates) are firm. Exceptions will be granted only for excused absences.

Course evaluation:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or

via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Students requiring accommodations:
Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Honor policy and Academic integrity:
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conducthonor- code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether the effort is successful. Breaches of academic integrity include – but are not limited to – the following:

- Use of materials (whether verbatim or paraphrased) from another author without citation or attribution.
- Extensive use of materials from past assignments without permission of your instructor.
- Extensive use of materials from assignments in other classes without permission of your instructor.
- Fabricating information for assignments, whether for publication or not.
- Fabricating sources for assignments, whether for publication or not.

- Fabricating quotes in assignments, whether for publication or not..

When in doubt about what constitutes a violation of academic integrity procedures, contact me.

ASSIGNMENTS

Critical Reading Questions (5 points apiece)
You will come to each class (and will submit on Canvas) with a list of *3 questions* in response to *each* of the readings. Think of it this way: What did you find interesting, relevant, thought- provoking, controversial, or disagreeable about a particular reading? You will submit these questions on Canvas before class, but you must also bring these questions to class with you.

Discussion Leader
Throughout the semester, you will lead the discussion on **5** readings. You'll choose these **5** during our first class. There are a few times where one reading includes two separate texts (shorter readings). Only one student can be assigned to each reading. When leading the class discussion, you will still write your critical reading questions. These questions should especially be designed to stimulate conversation in class.

Research Proposal (50 points):
You will write a 10 to12-page research (or literature) proposal (i.e., introduction through method) identifying the focus of your paper.

Research Paper (100 points):
You will write a literature review (approx. 15-20 pages of main text) and an annotated bibliography.

Research Presentation (25 points):
You will give a 12 to15-minute presentation of your paper to class.

GRADING

Assignment	Points

Critical Reading Questions	130
Discussion Leader	100 (25 points per presentation)
Research Proposal	50
Research Paper/Annotated Bib	100
Research Paper Presentation	30
TOTAL	**410**

To calculate your final grade, your total points will be converted into a percentage and rounded to the nearest whole number. The following scale will be used:

Final %age	**Grade**
98-100%	A+
93-97%	A
90-92%	A-
88-89%	B+
83-87%	B

80-82%	B-
78-79%	C+
73-77%	C
70-72%	C-
68-69%	D+
63-67%	D
60-62%	D-
BELOW 60	E

For additional information on UF grading policies, please see https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

COURSE SCHEDULE

Week 1: (Jan. 11) Introduction to syllabus, course and each other

Frankfurt School and Critical Theory
NPR, "Ideas that make up critical race theory have been around long before it got its name"
https://www.npr.org/2022/09/13/1122621454/ideas-that- make-up-critical-race-theory-have-been-around-long-before-it-got-its-
Tampa Bay Times, https://www.tampabay.com/opinion/2022/10/20/what-critical-theory- is-actually-all-about-column/

Week 2: (Jan. 18) Ideology and Cultural Studies Hall, Cultural Studies Two Paradigms Popp, Cultural History and Media Studies Debord, The Commodity as Spectacle

WEEK 2 QUESTIONS DUE

Week 3: (Jan. 25) Marx, Marxism and Marxist Theory

Marx & Engels, The Ruling Class and the Ruling Ideas Bourdieu, The Forms of Capital Smythe, Audience Commodity

Forsythe, Frantz Fanon -- The Marx of the Third World

WEEK 3 QUESTIONS DUE

Week 4: (Feb. 1)

Hegemony Lull,
Hegemony
Gramsci, (i) History of the Subaltern Classes; (ii) The Concept of "Ideology"; (iii) Cultural Themes: Ideological Material
Bates, Gramsci and the Theory of Hegemony-
Luisi, Randall Pearson: Framing Black identity, masculinity,

WEEK 4 QUESTIONS DUE

Week 5: (Feb. 8) The Frankfurt School

Horkheimer and Adorno, The Culture
Industry Habermas, The Public Sphere-
Fraser, Rethinking the Public
Sphere Lipsitz, How Racism
Takes Place

WEEK 5 QUESTIONS DUE

Week 6: (Feb. 15) Althusserian Theory

Althusser, Ideology and Ideological State
Apparatuses Cacho, Social Death
Herman& Chomsky, Manufacturing

WEEK 6 QUESTIONS DUE

Research Proposal Due by Wednesday at noon.

Week 7: (Feb. 22) Technology and Spectacle

McLuhan, Medium is the Message
Kellner, Media Spectacle and Domestic
Terrorism Lu & Steele, Joy is resistance

WEEK 7 QUESTIONS DUE

Week 8: (March 1) The Politics of Representation

Radway, The Readers and their Romances hooks, Eating the Other Davis, Black Rapist Myth Grant et. al., Selling Breonna

WEEK 8 QUESTIONS DUE

Week 9: (March 8) Race and Media Studies

Said, Orientalism Crenshaw, Demarginalizing

WEEK 9 QUESTIONS DUE

Week 10: SPRING BREAK

Week 11: (March 22) Feminist and Queer Media Studies Mulvey, Visual Pleasure and Narrative Cinema Bordo, Unbearable Weight Cabas & Grant, No Longer Interested Jenkins & Finnman, Gender Trouble in the Workplace

WEEK 11 QUESTIONS DUE

Week 12: (March 29) Media and Social Change

Lievrouw, Alternative and Activist New Media Jackson & Welles, Hijacking #myNYPD Altheide, Media Logic, Social Control and Fear Brock, From the Blackhand Side

WEEK 12 QUESTIONS DUE

Week 13: (April 5) Postmodernism and Cultural Studies Lazar, Critical Feminist Discourse Foucault, Right of Death and Power over Life Ahmed, The Cultural Politics

of Emotion

McRobbie, Feminism, Postmodernism and the "Real Me"

WEEK 13 QUESTIONS DUE

Week 14: (April 12) Globalization and Transnationalism in Media Studies Appadurai, Disjuncture and Difference in the Global Cultural Economy Anzaldua, The Homeland/Aztlán
Schiller, The Situation of Transnational Studies Durham, Scene of the Crime

WEEK 14 QUESTIONS DUE

Week 15: (April 19) Postcolonialism in Media Studies

Mohanty, Under Western Eyes: Feminist Scholarship and Colonial Discourses Plumwood, Dualism: the logic of colonization
Dirlik, The Postcolonial Aura

WEEK 15 QUESTIONS DUE

Week 16: (April 26) Presentations

Submit annotated bibliography.

Week 17: Finals Week

Research papers due on our finals day (will list but is dependent on semester exam schedule).

Course|New for request 18772

Info

Request: MMC 6XXX Media Psychology
Description of request: Seeking permanent course number for Media Psychology
Media psychology examines how we interact with media on the psychological level. Instead of focusing only on the user or the media, media psychology examines media use and effects as an interaction between media, content message, and users. The course helps you gain a general overview of the theories and methods in this area.
Submitter: Jennifer Goodman rgoodman@jou.ufl.edu
Created: 8/15/2023 3:10:33 PM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
MMC

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
* *

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Media Psychology

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Media Psychology

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Seminar

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Media psychology examines how we interact with media on the psychological level. Instead of focusing only on the user or the media, media psychology examines media use and effects as an interaction between media, content message, and users. The course helps you gain a general overview of the theories and methods in this area.

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
n/a

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
n/a

Completing Prerequisites:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
Media psychology is a prominent field within mass communications. This course will help students understand the motivation and adoption of media, media processing theories, and media effects. Furthermore, student conduct a study, which is submitted to conferences and for publication. Thus, it helps advance students' research and their research agendas.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
- Identify and explain key topics of interest, theoretical paradigms, and methodological techniques used in the subfield of media psychology.
- Demonstrate an understanding of the state of the media psychology literature, including recent theoretical and empirical developments and trends.
- Differentiate media psychology from other subfields of social science, but also understand the extent of overlap and cross-pollination.
- Apply a media psychological perspective to socially relevant phenomena and new technologies.

- Write, design, and submit original research that employs media psychology.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Please see the readings in the day-by-day section of the syllabus. No textbook. (Below is a sample of the readings).

1. Chaffee, S. H., & Berger, C. R. (1987). What do communication scientists do? In C. R. Berger & S.
H. Chaffee (Eds.), Handbook of communication science (pp. 99-122). Newbury Park, CA: Sage. [Read up to page 105]
2. Sutton, R. I., & Staw, B. M. (1995). What theory is not. Administrative science quarterly, 371-384.

1. Giles, D. (2010). Chapter 1: History of the mass media; Chapter 2: Ways of thinking about the psychology of media. In Psychology of the media (pp. 5-26). New York, NY: Palgrave Macmillan.
2. Giles, D. (2003). Chapter 1: What is media psychology, and why do we need it?; Chapter 2: Theoretical issues in media research. In Media psychology (pp. 3-27). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
3. Rutledge, P. (2012). Is There a Need for a Distinct Field of Media Psychology? In K. Dill (Ed.), Oxford Handbook of Media Psychology. New York: Oxford University Press.

1. Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. Educational psychologist, 34(3), 169-189.
2. Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. Educational psychologist, 34(3), 169-189.
3. Ryan, R. M., & Deci, E. L. (2000). Self- determination theory and the facilitation of intrinsic motivation, social development, and well- being. American psychologist, 55(1), 68.

1. Bandura, A. (2001). Social cognitive theory of mass communication. Media psychology, 3(3), 265-299.
2. Bandura, A. (2004). Health promotion by social cognitive means. Health Education & Behavior, 31(2), 143-164.
3. LaRose, R., & Eastin, M. S. (2004). A social cognitive theory of Internet uses and gratifications: Toward a new model of media attendance. Journal of Broadcasting & Electronic Media, 48(3), 358-377.
4. LaRose, R., Lin, C. A., & Eastin, M. S. (2003). Unregulated Internet usage: Addiction, habit, or deficient self-regulation?. Media Psychology, 5(3), 225-253.
5. Fox, J., & Bailenson, J. N. (2009). Virtual self- modeling: The effects of vicarious reinforcement and identification on exercise behaviors. Media Psychology, 12(1), 1-25.

1. Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.
2. Fishbein, M. (2008). A reasoned action approach to health promotion. Medical Decision Making, 28(6), 834-844.
3. Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: recycling the concept of norms to reduce littering in public places. Journal of personality and social psychology, 58(6), 1015.
4. Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. Annu. Rev. Psychol., 55, 591-621.
5. Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. Journal of consumer Research, 35(3), 472- 482.

1. Anderson & Kirkorian, (2006). Chapter 3. “Attention and Television,” in Psychology of Entertainment, eds. Jennings Bryant and Peter Vorderer, Mahwah, NJ: Lawrence Erlbaum. b.
2. Harris, Cady, Tran, (2006). Chapter 5. “Comprehension and Memory,” in Psychology of Entertainment, eds. Jennings Bryant and Peter Vorderer, Mahwah, NJ: Lawrence Erlbaum
3. Drew, D., & Weaver, D. (1990). Media attention, media exposure, and media effects. Journalism & Mass Communication Quarterly, 67(4), 740-748.
4. Ravaja, N. (2004). Contributions of psychophysiology to media research: Review and recommendations. Media Psychology, 6(2), 193-235.
5. Lang, A., Bradley, S. D., Park, B., Shin, M., Chung,

Y. (2006). Parsing the resource pie: Using STRTs to measure attention to mediated messages. Media Psychology, 8, 369-394.
1. Anderson & Kirkorian, (2006). Chapter 3. “Attention and Television,” in Psychology of Entertainment, eds. Jennings Bryant and Peter Vorderer, Mahwah, NJ: Lawrence Erlbaum. b.
2. Harris, Cady, Tran, (2006). Chapter 5. “Comprehension and Memory,” in Psychology of Entertainment, eds. Jennings Bryant and Peter Vorderer, Mahwah, NJ: Lawrence Erlbaum
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5. Lang, A., Bradley, S. D., Park, B., Shin, M., Chung,
Y. (2006). Parsing the resource pie: Using STRTs to measure attention to mediated messages. Media Psychology, 8, 369-394.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
1. Introduction
2. What is media psychology
3. Labor Day

Motivation and adoption of media Units
4. Motivations
5. Social cognitive theory and media
6. Theory of planned behavior action and social norms

How we process mediated messages Units
7. Attention
8. Arousal and effects
9. Cognitive processing of mediated message
10. Persuasion: HSM and ELM (those are theories)

Media effects
11. CMC context and norms: SIDE
12. Excitation transfer and aggression
13 Flex week based on student needs
14 work on paper
15 work on paper
16. present paper

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If

participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
A is 93.5%-100
A- is 90% to 93.4%
B+ is 86.5% to 90%
B is 83% to 86.4%
B- is 80-82.9%
C+is 76.5% to 79.9%
C is 73% to 76.4%
C- is 70-72.9%
D+is 66.5% to 69.9%
D is 63% to 66.4%
D- is 60-62.9%
BELOW 60 = E

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Yu Hao Lee; Benjamin Johnson

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• *https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx*

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.*

* *

Response:
Yes

MMC 6XXX
Media Psychology

Course Info

When: Where:

Instructor: Dr. Yu-Hao Lee

E-mail:

Phone:

Office hours:

Office:

The best way to reach me is through email. I check my email very frequently. If you send me an email, expect to receive a response within 48 hours.

Course Objectives

How do people with different motivations approach media? How do people's emotions affect the way they use media? How do people process mediated messages? And how does media affect users? Media psychology examines how we interact with media on the psychological level. Instead of focusing only on the user or the media, media psychology examines media use and effects as an interaction between media, content message, and users. This course is structured into three general sections: 1) Motivation and adoption of media. 2) Media processing theories. And 3) Media effects. It is set us this way to help you gain a general overview of the theories and methods in the field. As an advanced course, you will go through the complete process of designing and conducting a media psychology study. Students should have basic knowledge of (or strong motivations to learn) quantitative research methods to succeed in this course.

Course Learning Objectives

Upon completion of this course, students will be able to:

- Identify and explain key topics of interest, theoretical paradigms, and methodological techniques used in the subfield of media psychology.
- Demonstrate an understanding of the state of the media psychology literature, including recent theoretical and empirical developments and trends.
- Differentiate media psychology from other subfields of social science, but also understand the extent of overlap and cross-pollination.
- Apply a media psychological perspective to socially relevant phenomena and new
- technologies.
- Write, design, and submit original research.

Readings

There are no required textbooks for this class, all the readings will be posted on the Canvas course site (https://lss.at.ufl.edu) select "e-Learning in Canvas," and log in using your Gatorlink ID

Requirements

Moderate discussions: You will work in groups to present the key concepts of each reading, background/theory, research questions/hypotheses, methods, results, conclusions.

IMPORTANT: You should assume that the class has already read the readings, your role is not to give a detailed presentation of the readings, but to come up with thought-provoking question that helps the class compare and integrate the theories and applications. You can send me the discussion questions on the weekend before class if you want me to look over them.

Based on your understanding of the readings, find media examples to facilitate discussion. Share the example with the class and discuss how it relates to the weekly topics. You may prepare slides or handouts to stimulate class discussion but do not do excessive stylistic work on your slides.

Mini-prospectus (Due September 13): You will identify a specific research question, explain why it is of interest to you, and review at least two theoretical approaches that have been applied to examine the research question or phenomenon. Explain why the research question is important (i.e. the 'so what?' question), and why our current understanding is insufficient. The purpose of the mini prospectus is help you identify key research questions or constructs that can be developed into a research project.

The second paper (Due October 18): You will focus on the specific construct/phenomenon that was presented and revised in the mini-prospectus. Provide a literature review of the issue by focusing on various theoretical approaches that have been applied to the phenomenon. The paper may discuss this in an evolutionary manner, i.e., detailing how theories have developed and replaced one another. Identify competing theories and perspectives and how they have been applied to related phenomena, highlight the disagreements that need to be resolved conceptually and empirically. The literature review should 'not' be a reading list of existing literature, compare and summarize existing studies, identify what the critical arguments and differential explanations are that remain contested or conflicted which need resolution in order for a more sophisticated understanding of the phenomenon to be reached. The second paper should conclude with a proposed study design including your measurement scales. The purpose of this paper is to demonstrate that you understand how to formally apply theory to problems and deduce testable research questions that can be operationalized.

The final research paper (Due December 11): As an advanced course. The final paper should be a complete research paper that can be submitted to a conference or journal for publication. You will extend the second paper by revising the method section and reporting your study results. Your final paper should be 20-25 pages in length not including the references (APA 6th edition) including introduction, literature review, research question/ hypotheses, method, results and discussion.

Working in groups: You may work in pairs of groups for a more rigorous project with prior approval.

Final presentation: at the end of the semester, you will have 20 minutes to present your paper (not including Q&A) in which we will discuss your topic of research and provide feedback. Prepare your presentation as you will in an academic conference.

Grading

Moderate discussions	30%
Mini prospectus	5%
Second paper	35%
Final paper	20%
Final presentation	10%

A is 93.5%-100
A- is 90% to 93.4%
B+ is 86.5% to 90%
B is 83% to 86.4%
B- is 80-82.9%
C+is 76.5% to 79.9%
C is 73% to 76.4%
C- is 70-72.9%
D+is 66.5% to 69.9%
D is 63% to 66.4%
D- is 60-62.9%
BELOW 60 = E

Information on current UF grading policies for assigning grade points is required to be included in the course syllabus. The following link may be used directly in the syllabus:

https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Class Policy

Attendance: Seriously, graduate students do not skip classes. The class will start promptly, if you come in late or must leave early, please do so quietly without disturbing others. For additional information about course policies on absences: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Late work: Assignments are due by the date and time indicated on the course schedule. The official submission record will be the date and time recorded on Canvas. Deadlines (times as well as dates) are firm. Exceptions will be granted only for excused absences. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Course evaluation: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Electronic devices: You are allowed to bring laptops or tablets for note-taking. But uses of other electronic devices are strictly prohibited during class, ESPECIALLY cellphones. Please turn your phone off or to silent mode during class and keep it tucked away.

UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conducthonor- code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

You can find the complete honor code via this link:
https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/

Among the activities that could result in Honor Code violations are plagiarism, cheating, misrepresenting sources, the unauthorized use of others' work, etc. Examples of academic dishonesty include, but are not limited to:

- Using phrases or quotes from another source without proper attribution or quotation marks. This includes paraphrasing without proper attribution
- Pass off other people's ideas as your own
- Turning in the same assignment or paper from your other courses
- Fabrication of literature or data
- For this class, five or more words (verbatim) from a source without proper

Ask the instructor if you are uncertain about your Honor Code responsibilities within this course.

Students requiring accommodations: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

VIDEO RECORDING: Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic

exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Tentative Schedule

Date	Topic	Readings
Aug. 24	Introduction	1. Chaffee, S. H., & Berger, C. R. (1987). What do communication scientists do? In C. R. Berger & S. H. Chaffee (Eds.), Handbook of communication science (pp. 99-122). Newbury Park, CA: Sage. [Read up to page 105] 2. Sutton, R. I., & Staw, B. M. (1995). What theory is not. Administrative science quarterly, 371-384.
Aug. 31	What is media psychology?	1. Giles, D. (2010). Chapter 1: History of the mass media; Chapter 2: Ways of thinking about the psychology of media. In Psychology of the media (pp. 5-26). New York, NY: Palgrave Macmillan. 2. Giles, D. (2003). Chapter 1: What is media psychology, and why do we need it?; Chapter 2: Theoretical issues in media research. In Media psychology (pp. 3-27). Mahwah, NJ: Lawrence Erlbaum Associates, Inc. 3. Rutledge, P. (2012). Is There a Need for a Distinct Field of Media Psychology? In K. Dill (Ed.), Oxford Handbook of Media Psychology. New York: Oxford University Press.
Sep. 07	LABOR DAY. NO CLASS	
Motivation and adoption of media		

Sep. 14	Motivations [Mini prospectus due on Sep. 13th before 11:59pm]	1. Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. Educational psychologist, 34(3), 169-189. 2. Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. Educational psychologist, 34(3), 169-189. 3. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well- being. American psychologist, 55(1), 68.
Sep. 21	Social cognitive theory and media	1. Bandura, A. (2001). Social cognitive theory of mass communication. Media psychology, 3(3), 265-299. 2. Bandura, A. (2004). Health promotion by social cognitive means. Health Education & Behavior, 31(2), 143-164. 3. LaRose, R., & Eastin, M. S. (2004). A social cognitive theory of Internet uses and gratifications:

		Toward a new model of media attendance. *Journal of Broadcasting & Electronic Media*, *48*(3), 358-377. 4. LaRose, R., Lin, C. A., & Eastin, M. S. (2003). Unregulated Internet usage: Addiction, habit, or deficient self-regulation?. Media Psychology, 5(3), 225-253. 5. Fox, J., & Bailenson, J. N. (2009). Virtual self-modeling: The effects of vicarious reinforcement and identification on exercise behaviors. Media Psychology, 12(1), 1-25.
Sep. 28	Theory of planned behavior action and social norms	1. Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211. 2. Fishbein, M. (2008). A reasoned action approach to health promotion. Medical Decision Making, 28(6), 834-844. 3. Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: recycling the concept of norms to reduce littering in public places. Journal of personality and social psychology, 58(6), 1015. 4. Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. Annu. Rev. Psychol., 55, 591-621. 5. Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of consumer Research*, *35*(3), 472- 482.
How do we process mediated messages?		
Oct. 05	Attention	1. Anderson & Kirkorian, (2006). Chapter 3. "Attention and Television," in Psychology of Entertainment, eds. Jennings Bryant and Peter Vorderer, Mahwah, NJ: Lawrence Erlbaum. b. 2. Harris, Cady, Tran, (2006). Chapter 5. "Comprehension and Memory," in Psychology of Entertainment, eds. Jennings Bryant and Peter Vorderer, Mahwah, NJ: Lawrence Erlbaum 3. Drew, D., & Weaver, D. (1990). Media attention, media exposure, and media effects. Journalism & Mass Communication Quarterly, 67(4), 740-748. 4. Ravaja, N. (2004). Contributions of psychophysiology to media research: Review and recommendations. Media Psychology, 6(2), 193-235. 5. Lang, A., Bradley, S. D., Park, B., Shin, M., Chung, Y. (2006). Parsing the resource pie: Using STRTs to measure attention to mediated messages. Media Psychology, 8, 369-394.

Oct. 12	Arousal and affects	1. Bolls, P. D. (2010). Understanding emotion from a superordinate dimensional perspective: A productive way forward for communication processes and effects studies. Communication Monographs, 77(2), 146-152. 2. Nabi, R. L. (1999). A cognitive-functional model for the effects of discrete negative emotions on information processing, attitude change, and recall. Communication Theory, 9, 292-320. 3. Newhagen, J. E. (1998). TV news images that induce anger, fear, and disgust: Effects on approach-avoidance and memory. Journal of Broadcasting & Electronic Media, 42(2), 265-276. 4. Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from" feeling right.". Journal of personality and social psychology, 86(3), 388. 5. Lee, A. Y., & Aaker, J. L. (2004). Bringing the frame into focus: the influence of regulatory fit on processing fluency and persuasion. Journal of personality and social psychology, 86(2), 205.
Oct. 19	Cognitive processing of mediated message [Paper 2 due one Oct. 18 before 11:59pm]	1. Lang, A., Potter, R. F., & Bolls, P. D. (2009). Where psychophysiology meets the media: Taking the effects out of media research. In J. Bryant & M. B. Oliver (Eds.), Media effects: Advances in theory and research (pp. 185-206). New York, NY: Routledge. 2. Lang, A. (2006). Using the limited capacity model of motivated mediated message processing to design effective cancer communication messages. Journal of Communication, 56, S57-S80. 3. Fisch, S. M. (2000). A capacity model of children's comprehension of educational content on television. Media Psychology, 2(1), 63-91. 4.
Oct. 26	Persuasion: HSM & ELM	1. Todorov, A., Chaiken, S., & Henderson, M. D. (2002). The heuristic-systematic model of social information processing. The persuasion handbook: Developments in theory and practice, 195-211. 2. Petty, R. E., Briñol, P., & Priester, J. R. (2009). Mass media attitude change: Implications of the elaboration likelihood model of persuasion. In J. Bryant & M. B. Oliver (Eds.), Media effects: Advances in theory and research (3rd Ed., pp. 125- 164). Mahwah, NJ: Lawrence Erlbaum Associated, Inc. 3. Petty, R. E., Cacioppo, J. T., & Kasmer, J. A. (2015). The role of affect in the elaboration likelihood model of persuasion.

		Communication, Social Cognition, and Affect (PLE: Emotion), 117.

		4. Shrum, L. J. (2001). Processing strategy moderates the cultivation effect. Human Communication Research, 27(1), 94-120.
		Media effects
Nov. 02	CMC context and norms: SIDE	1. Reicher, S., Spears, R., & Postmes, T. (1995). A social identity model of deindividuation phenomena. European Review of Social Psychology, 6, 161-198. doi: 10.1080/14792779443000049 2. Lea, M., Spears, R., & De Groot, D. (2001). Knowing me, knowing you: Effects of visual anonymity on self-categorization, stereotyping and attraction in computer-mediated groups. Personality and Social Psychology Bulletin, 27, 526-537. doi: 10.1177/0146167201275002 3. Lee, E.-J. (2004). Effects of visual representation on social influence in computer-mediated communication: Experimental tests of the social identity model of deindividuation. Human Communication Research, 30, 234-259. doi: 10.1111/j.1468-2958.2004.tb00732.x
Nov. 09	Excitation transfer and aggression?	1. Zillmann, D. (1991). Television viewing and physiological arousal. Responding to the screen: Reception and reaction processes, 103-133. 2. Wang, Z., & Lang, A. (2012). Reconceptualizing excitation transfer as motivational activation changes and a test of the television program context effects. Media Psychology, 15(1), 68-92. 3. Bushman, B. J., & Anderson, C. A. (2002). Violent video games and hostile expectations: A test of the general aggression model. Personality and social psychology bulletin, 28(12), 1679-1686. 4. Ferguson, C. J., & Dyck, D. (2012). Paradigm change in aggression research: The time has come to retire the General Aggression Model. Aggression and Violent Behavior, 17(3), 220-228. 5. Potter, W., J. and T. K. Tomasello (2003). Building upon the experimental design in media violence research: The importance of including receiver interpretations. Journal of Communication, 53(2): 133-156.
Nov. 16	TBD based on your needs	
Nov. 23	Work on final project	
Nov. 30	Work on final project	

Dec. 07	Final project presentation	
Dec. 11	[Final paper due before 11:59pm]	

Resources:

- Media Psychology
- Journal of Media Psychology
- Journal of Communication
- Communication Research
- Cyberpsychology, Behavior, and Social Networking
- Computers in Human Behavior
- Journal of Computer-Mediated Communication
- Journal of Broadcasting & Electronic Media
- Journal of Consumer Research
- Psychological Science
- Journal of Marketing
- Journal of Advertising
- Journalism & Mass Communication Quarterly

Note: Based on your input and our progress, I reserve the right to amend and change the syllabus, reading schedules, and grading events during the semester.

Course|New for request 18588

Info

Request: MMC 6XXX Risk Communication
Description of request: Permanent course code for graduate class. This graduate seminar examines theory and research related to the communication of health, environmental, technological, agricultural, and geological risks. It looks at risk communication from multiple perspectives, including psychological, social, and cultural.
Submitter: Jennifer Goodman rgoodman@jou.ufl.edu
Created: 6/5/2023 12:11:07 PM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
MMC

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:

Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Risk Communication

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Risk Communication

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Seminar

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
Students examine theory and research related to the communication of health, environmental, technological, agricultural, and geological risks. The course looks at risk communication from multiple perspectives, including psychological, social, and cultural. The course will emphasize understanding, critiquing, and applying theories of risk communication.

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
n/a

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
graduate standing

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
Understanding risk in communication is critical for student going into the science and health communication fields. It is also important to the burgeoning field of AI and communications.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
To develop a good understanding of different areas of risk communication research.
To critically evaluate and analyze key risk communication theories and their applications in different research and practical contexts.
To apply risk communication theories to analyze real- world risk communication scenarios.

Course Textbook(s) and/or Other Assigned Reading

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:

Plough, A., & Krimsky, S. (1987). The emergence of risk communication studies: social and political context. Science, Technology, & Human Values, 12(3/4), 4-10.
McComas, K. A. (2006). Defining moments in risk communication research: 1996–2005. Journal of health communication, 11(1), 75-91.
Balog-Way, D., McComas, K., & Besley, J. (2020). The Evolving Field of Risk Communication. Risk Analysis, 40(S1), 2240-2262.
Leiss, W. (1996). Three phases in the evolution of risk communication practice. The Annals of the American Academy of Political and Social Science, 545(1), 85-94.
Slovic, P. (1987). Perception of risk. Science, 236(4799), 280-285.
Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185(4157), 1124-1131.
Jardine, C. G., & Hrudey, S. E. (1997). Mixed messages in risk communication. Risk Analysis, 17, 489-498.Week 4 – Risk literacy & numeracy
Wachinger, G., Renn, O., Begg, C., & Kuhlicke, C. (2013). The risk perception paradox—implications for governance and communication of natural hazards. Risk Analysis, 33(6), 1049-1065.
Kahan, D. M., Peters, E., Wittlin, M., Slovic, P., Ouellette, L. L., Braman, D. & Mandel, G. (2012). The polarizing impact of science literacy and numeracy on perceived climate change risks. Nature Climate Change, 2, 732-735.
Peters, E., et al. (2006). Numeracy and decision making. Psychological Science 17, 407-413.
Brossard, D., & Nisbet, M. C. (2006). Deference to scientific authority among a low information public: Understanding U.S. opinion on agricultural biotechnology. International Journal of Public Opinion Research, 19, 24-52.
Gigerenzer, G. & Edwards, A. (2003). Simple tools for understanding risks: From innumeracy to insight. British Medical Journal, 327, 741-744.
Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. Science, 211(4481), 453-458.
Nisbet, E. C., Hart, P. S., Myers, T., & Ellithorpe, M. (2013). Attitude change in competitive framing environments? Open-/closed-mindedness, framing effects, and climate change. Journal of Communication, 63(4), 766-785.
Steinhardt, J., & Shapiro, M. A. (2015). Framing effects in narrative and non-narrative risk messages. Risk Analysis, 35(8), 1423-1436.
Heath, R. L., Lee, J., & Lemon, L. L. (2019). Narratives of risk communication: Nudging community residents to shelter-in-place. Public Relations Review, 45(1), 128-137.
Harris, P. R., Griffin, D. W., & Murray, S. (2008). Testing the limits of optimistic bias: Event and person moderators in a multilevel framework. Journal of Personality and Social Psychology, 95(5), 1225.
Weinstein, N. (1989). Optimistic biases about personal risks. Science, 246, 1232-1233.
Campbell, T. H., & Kay, A. C. (2014). Solution aversion: On the relation between ideology and motivated disbelief. Journal of personality and social psychology, 107(5), 809.
Chu, H., Yang, J. Z., & Liu, S. (2021). Not my pandemic: Solution aversion and the polarized public perception of COVID-19. Science Communication, 43(4), 508-528.
Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. Science, 322(5905), 1201-1205.
Chu, H., & Yang, J. Z. (2020). Risk or Efficacy? How Psychological Distance Influences Climate Change Engagement. Risk Analysis, 40(4), 758-770.
Chu, H., & Liu, S. (2021). Light at the end of the tunnel: Influence of vaccine availability and vaccination intention on people's consideration of the COVID-19 vaccine. Social Science & Medicine, 286, 114315.
Spence, A., Poortinga, W., & Pidgeon, N. (2012). The psychological distance of climate change. Risk Analysis, 32(6), 957-972.
Lerner, J. S. and D. Keltner (2001). Fear, anger, and risk. Journal of Personality and Social Psychology 81, 146-159.
Slovic, P. (2007). "If I look at the mass I will never act": Psychic numbing and genocide. Judgment and Decision Making, 2, 79-95.
Lu, H., & Schuldt, J. P. (2016). Compassion for climate change victims and support for mitigation policy. Journal of Environmental Psychology, 45, 192-200.
Nabi, R. L. (2015). Emotional flow in persuasive health messages. Health communication, 30(2),

114-124.
Slovic, P. (1993). Perceived risk, trust, and democracy. Risk Analysis, 13(6), 675-682.
Trumbo, C. W., & McComas, K. A. (2003). The function of credibility in information processing for risk perception. Risk Analysis, 23, 343-353.
Poortinga, W., & Pidgeon, N. F. (2006). Prior attitudes, salient value similarity, and dimensionality: Toward an integrative model of trust in risk regulation. Journal of Applied Social Psychology, 36, 1674-1700.
Fiske, S. T., & Dupree, C. (2014). Gaining trust as well as respect in communicating to motivated audiences about science topics. Proceedings of the National Academy of Sciences, 111(supplement_4), 13593-13597.
Kasperson, R. E., Renn, O., Slovic, P., Brown, H. S., Emel, J., Goble, R., ... & Ratick, S. (1988). The social amplification of risk: A conceptual framework. Risk analysis, 8(2), 177-187.
Hilgartner, S. (2007). Overflow and containment in the aftermath of disaster. Social Studies of Science, 37, 153-158.
Kahan, D. M., Jenkins-Smith, H., & Braman, D. (2011). Cultural cognition of scientific consensus. Journal of risk research, 14(2), 147-174.
Flynn, J., et al. (1994). Gender, race, and perception of environmental-health risks. Risk Analysis 14, 1101-1108.
Wahlberg, A. A., & Sjoberg, L. (2000). Risk perception and the media. Journal of risk research, 3(1), 31-50.
Dixon, G. N. and C. E. Clarke (2013). Heightening Uncertainty Around Certain Science: Media Coverage, False Balance, and the Autism-Vaccine Controversy. Science Communication 35, 358-382.
Dixon, G. N., McKeever, B. W., Holton, A. E., Clarke, C., & Eosco, G. (2015). The power of a picture: Overcoming scientific misinformation by communicating weight-of-evidence information with visual exemplars. Journal of Communication, 65(4), 639-659.
Tyler, T. R. & Cook, F. L. (1984). The mass media and judgments of risk: Distinguishing impact on personal and societal level judgments. Journal of Personal and Social Psychology, 47, 693-708.
Yuan, S., Ma, W., & Besley, J. C. (2019). Should scientists talk about GMOs nicely? Exploring the effects of communication styles, source expertise, and preexisting attitude. Science Communication, 41(3), 267-290.
Liu, S., & Yang, J. Z. (2020). Incorporating Message Framing into Narrative Persuasion to Curb E-Cigarette Use Among College Students. Risk Analysis, 40(8), 1677-1690.
Nabi, R. L., & Green, M. C. (2015). The role of a narrative's emotional flow in promoting persuasive outcomes. Media Psychology, 18(2), 137-162.
Dunwoody, S., & Griffin, R. J. (2015). Risk information seeking and processing model. In H. Cho, T. Reimer, and K. McComas (Eds), SAGE handbook of risk communication (pp. 102-116), Sage Publications.
Cooks, E. J., Duke, K. A., Neil, J. M., Vilaro, M. J., Wilson-Howard, D., Modave, F., ... & Krieger, J. L. (2022). Telehealth and racial disparities in colorectal cancer screening: A pilot study of how virtual clinician characteristics influence screening intentions. Journal of clinical and translational science, 6(1).
Cowls, J., Tsamados, A., Taddeo, M., & Floridi, L. (2021). The AI gambit: leveraging artificial intelligence to combat climate change—opportunities, challenges, and recommendations. Ai & Society, 1-25.
Fauville, G., Queiroz, A. C. M., & Bailenson, J. N. (2020). Virtual reality as a promising tool to promote climate change awareness. Technology and health, 91-108.
Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. science, 359(6380), 1146-1151.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Week 1
1/9
Course introduction & syllabus; The field of risk communication

Week 2

1/16
No class – Martin Luther King, Jr. Day

Week 3
1/23
Classic risk research

Week 4
1/30
Risk literacy & numeracy

Week 5
2/6
Prospect theory, framing, & nudging

Week 6
2/13
Motivated reasoning & optimistic bias

Week 7

2/20
Psychological distance & construal level

Week 8

2/27
Emotion & affect

Week 9

3/6
Trust & credibility

Week 10
3/13 No class – Spring Break

Week 11

3/20
Risk, culture, & society

Week 12

3/27
Media effects & risk
Week 13

4/3
Narrative persuasion & communication style

Week 14

4/10
Information seeking and processing

Week 15

4/17
Future directions

Week 16

4/24
Research project presentation

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:

93.5-100%	A	83.5-87%	B	73.5-77%	C	63.5-67%	D		
90-93.4%	A-	80-83.4%	B-	70-73.4%	C-	60-63.4%	D-		
87.1-89.9%	B+	77.1-79.9%	C+	67.1-69.9%	D+	0-59.9%	E		

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Haoran "Chris" Chu

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:

Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• *https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx*

Response:
Yes

Course Evaluation Policy

Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• *Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.*

* *

Response:
Yes

Risk Communication: MMC XXX

Spring 2023

Basic Information

Instructor: Haoran "Chris" Chu
Email: chu.h@ufl.edu (Preferred method of communication. Please include MMC6936 in the subject line.) Office Phone Number:
Class Periods:
Office Hours:

Course Descriptions

This graduate seminar examines theory and research related to the communication of health, environmental, technological, agricultural, and geological risks. It looks at risk communication from multiple perspectives, including psychological, social, and cultural. The course will emphasize understanding, critiquing, and applying theories of risk communication. It encourages you to think critically about risk communication as a dynamic process. After taking this course, students should be familiar with the major theories related to risk communication and have an appreciation for how these theories relate to the practice of risk communication.

LEARNING MATERIALS

- No text is required. However, you expected to read all assigned readings.
- Optional readings:
    - Cho, H., Reimer, T., & McComas, K. A. (Eds.). (2014). *The Sage handbook of riskcommunication. SAGE Publications*.
- Readings for each week will be made available on Canvas or emailed to you, on occasion.
- For your own research and interest, check out electronic resources in risk communication, such as http://www.culturalcognition.net/, which will be useful for your research projects as well as online discussion. A compilation of electronic resources in risk communication is available at https://www.sra.org/specialty-groups/risk-communication/research/. You are encouraged to browse through journals such as Risk Analysis and Journal of Risk Research.

Please Note:

- This syllabus and other course content are subject to change based the best interest of student learning. Changes will be announced on Canvas and via email. It is **YOUR RESPONSIBILITY to check your UF email regularly**.

COURSE OBJECTIVES

Learning Objective	Learning Outcomes
To develop a good understanding of different areas of risk communication research.	• Students will be able to explain how key theories in risk communication are developed and refined. • This learning outcome will be assessed in response papers and in-class discussions
To critically evaluate and analyze key risk communication theories and their applications in different research and practical contexts. .	• Students will be able to evaluate key risk communication theories regarding their scope, logical consistency, parsimony, utility, and testability. • This learning outcome will be assessed with response papers and in-class discussions.
To apply risk communication theories to analyze real- world risk communication scenarios.	• Students will be able to identify, describe, and explain what risk communication theories could be applied to analyze several case studies and propose appropriate communication strategies. • This learning outcome will be assessed with case study presentation, discussion moderation, and research paper.

GRADING CRITERIA

NOTE: Please understand that **points and percentages are different units**. The total point of this course is 1,000 and the total percentage is 100%. Therefore, 10 points are equal to 1 percent. All the following grading criteria (including extra credit) are based on the point system (1,000 points). All assignment due dates can be found in the course schedule attached to this syllabus.

- **Class Discussion** (100 points/10 percent)
    - Students are expected to come to class prepared to discuss the readings for that day. You may respond to questions posed by me and other students in their response papers and presentations, or ask questions related to the readings. Comments on the theories and specific research articles are also encouraged. You are expected to participate in the discussions during your presentation week and the weeks in which you have submitted a response paper.

- **Response Paper** (250 points/25 percent)
    - In keeping with the seminar design, you will be asked to read a considerable amount of original or in-depth materials before each class. To facilitate this, you will write short response papers (two double-spaced pages max.), raising questions or issues for discussion or responding to questions I may pose. There is no need to cite core readings, but external

references should be properly cited. Response papers should not simply summarize the readings, but reflect your own thinking based on the readings. Please note that you need to read the readings even if you are not submitting a response paper.

- Starting week 2, these short papers are due by **8 pm via email the Friday** before the relevant class. You may choose any week during week 3-13 to submit **five response papers** in total. However, please do not submit a response paper during the weeks when you are doing the research presentation.
- Each response paper is worth 50 points and will be graded based on merit.

- **Discussion Leader** (150 points/15 percent)
  - From week 3 to 13, At least once during the semester, you will be responsible for leading the discussion. This is not a formal presentation; instead, your job will be to highlight important issues in the readings and help provide a structure for considering key questions for the week's topic. When you are leading the discussion, please assume that your classmates have done the reading – a brief reminder about the main points or methods used in the articles is appropriate, but an extended summary is not. Instead, your job is to help us have a conversation that brings out important issues raised by the readings.
  - As a discussion leader, you will need to read all the readings assigned for the week. You will present the core arguments and findings made in the additional articles to the class and solicit comments and questions from the class regarding these articles.
  - Please feel free to meet with me the week before you are scheduled to be a discussion leader if you have questions or would like to discuss a strategy for leading the discussion. If you have an additional article that you would like to recommend to the class, or if you would like to suggest switching one of the required articles with one of the additional articles, please let me know at least a week in advance of class.
  - You will need to submit a discussion outline to me by **12:00 pm on the day of the class**. (Earlier submission is fine!) If you are paired with a partner for your discussion- leading day, you can submit one outline for both of you.
  - You will sign up for the discussion week/topic during the week 1 class, based on your interests. I will do my best to assign everyone to a topic of their choice. Starting week 2, we will have one to two students leading the discussion depending on the class size.
- **Discussion Questions** (150 points/15 percent)
  - From week 2 to week 13, you should come up with three (or more) discussion questions. These questions should be emailed to me and to the discussion leader(s) no later than **8 pm the Friday** before class. Please send your questions in the text of the email (not as an attachment) and put "MMCXXX Discussion Questions" as the subject line. There is no need to submit the discussion questions if you are leading the discussion or writing a response paper.

- A good discussion question provides a springboard for exploring the issues raised in the articles. For example, are there common themes that run through the readings? Are there differences highlighted by alternative theories or approaches? Other topics for good discussion questions might include critiques of the studies, real-world applications, and links to previous readings or topics.
- Straightforward clarification questions (e.g., what a technical term means, how to interpret a statistical analysis) are not appropriate discussion questions, but please feel free to ask those kinds of questions in class.

- **Research Project** (350 points/35 percent)
    - Option 1 – Research Paper (PhD or MAMC students): This option will give you an opportunity to develop a full research paper that you should aim to submit to an academic conference. Possible topics could include a content analysis of media coverage of a particular risk issue, an experiment that examines specific mechanisms that shape individuals' risk perceptions and behaviors, or a survey that evaluates attitudes toward and intentions to perform a specific risk-reducing behavior.
    - Option 2 – Case Study (MAMC students): This option will give you an opportunity to examine a risk communication situation of your choosing in depth. To investigate your situation, you will need to access significant literature related to your topic so that you can adequately describe the issue. You will be expected to find both popular and scientific sources to describe the risk. The final product will be a paper that describes the case, analyzes it from a theoretical point of view, and offers recommendations based on your research.
    - You will present your research proposal or case study to the class during the last week of class. You will make a 15-to-20-minute presentation about your research paper or case study followed by a short Q&A session. Feedback will be provided for your paper revision before final submission. The style of the presentation will be similar to conference presentations.
    - Detailed requirements for the research project will be posted on Canvas.

COURSE GRADING SCALE AND PERCENTAGES

Grading Items	Points	Percentage Allocation
Class Participation	100	10%
Discussion Leader	150	15%
Discussion Questions	150	15%
Response Papers	250	25%
Research Proposal	350	35%
Total point	**1,000**	**100%**

Letter Grades:

93.5-100%	A	83.5-87%	B	73.5-77%	C	63.5-67%	D
90-93.4%	A-	80-83.4%	B-	70-73.4%	C-	60-63.4%	D-
87.1-89.9%	B+	77.1-79.9%	C+	67.1-69.9%	D+	0-59.9%	E

Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

- https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

LATE/MISSED SUBMISSION

Late submission in general will not be accepted. Discuss with me in advance if you are not able to submit an assignment on time due to exceptional reasons.

UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conducthonor- code/) specifies a number of behaviors that are in violation of this code and the possible sanctions.
Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

COURSE EVALUATION

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

ATTENDANCE, MAKEUP POLICY

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found
at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

STUDENTS REQUIRING ACCOMODATIONS

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

COPYRIGHT STATEMENT

Materials in this course—unless otherwise indicated—are protected by United States copyright law [Title 17,
U.S. Code]. Materials are presented in an educational context for personal use and study and should not be shared, distributed, or sold in print—or digitally—outside the course without permission. Students may not record, reproduce, screenshot, photograph, or distribute any video, audio, or visual content from this course. This restriction includes but is not limited to live discussions, discussion boards, posted course materials, course evaluation form, visual materials that accompany lectures/discussions, such as slides and whiteboard notes, etc.

VIDEO RECORDING

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

MISCELLANEOUS

- The instructor reserves the right to make any changes to the syllabus, schedule, assignments, readings, forms, lecture topics, assessments, and any other course content if deemed necessary to facilitate classroom management and to achieve the learning objectives for the course. Students are responsible to stay aware of these changes.
- Only students enrolled in this course may attend (and receive credit for) this class.
- I take plagiarism very seriously. Any evidence of plagiarism or cheating will result in an "E" for the course and disciplinary action. Do not submit the same work to more than one class. Do not adapt work from another class for this class. Do not adapt someone else's work and submit it as your own. This course requires original work, created at this time, for this purpose.

COURSE SCHEDULE

*This is a *tentative* schedule.

Class Date	Topics
Week 1	
1/9	Course introduction & syllabus; The field of risk communication
Week 2	
1/16	*No class – Martin Luther King, Jr. Day*
Week 3	
1/23	Classic risk research
Week 4	
1/30	Risk literacy & numeracy
Week 5	
2/6	Prospect theory, framing, & nudging
Week 6	
2/13	Motivated reasoning & optimistic bias
Week 7	
2/20	Psychological distance & construal level
Week 8	
2/27	Emotion & affect
Week 9	
3/6	Trust & credibility
Week 10	

3/13	*No class – Spring Break*

Week 11	
3/20	Risk, culture, & society
Week 12	
3/27	Media effects & risk
Week 13	
4/3	Narrative persuasion & communication style
Week 14	
4/10	Information seeking and processing
Week 15	
4/17	Future directions
Week 16	
4/24	Research project presentation

Course|New for request 18649

Info

Request: PHC 6XXX Statistical and Computational Analysis of Genomic Data
Description of request: Request to create new PHC 6XXX Statistical and Computational Analysis of Genomic Data course
Submitter: April Oneal apriloneal3@ufl.edu
Created: 6/23/2023 4:31:40 PM
Form version: 1

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
PHC

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
* *

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:

Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Statistical and Computational Analysis of Genomic Data

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Stat.&Comp. Analysis Gen. Data

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines. Please do not start the description with "This course.."

Response:
The course will focus on statistical and computational methods/tools on next generation sequencing data analysis. Topics include introduction and analysis of DNA-seq, RNA-seq, ChIP-seq, ATAC-seq and single-cell genomics. In addition, the course will illustrate how to use R/Bioconductor R packages to handle common types of genomic data.

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
N/A

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
The students should have taken PHC 6068/6937 “Introduction to Biostatistical Computing” and PHC6050c ”BiostatisticalMethod” or equivalent. Permission at the discretion of the instructor.

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.
• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
The course will focus on statistical and computational methods/tools on next generation sequencing data analysis. Topics include introduction and analysis of DNA-seq, RNA-seq, ChIP-seq, ATAC-seq and single-cell genomics. In addition, the course will illustrate how to use R/Bioconductor R packages to handle common types of genomic data. To introduce a variety of statistical/computational methods commonly used in analyzing genomic data, with a focus on RNA-seq, ChIP-seq, ATAC-seq and single-cell genomics.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
1. Understanding the basic principles of next generation sequencing technology
2. Familiar with R/Bioconductor to analyze basic types of genomic data.
3. Understand the biological background, data format, data processing steps and software for analyzing next generation sequencing data.
4. Understand basic statistical and computational methods for analyzing next generation

sequencing data.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
There is no required text.

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
1 Introduction to molecular biology and next generation sequencing technology
2 Introduction to R programming using RStudio
3 Handling genome data using R/Bioconductor I
4 Handling genome data using R/Bioconductor II
5 Introduction to DNA-seq I
6 Introduction to DNA-seq II
7 Introduction to metagenomics and sequencing technology
8 Introduction to RNA-seq I
9 Introduction to RNA-seq II
10 --Spring Break--
11 Introduction to ATAC-seq, ChIP-seq and Hi-C
12 Introduction to single-cell RNA-seq I
13 Introduction to single-cell RNA-seq II
14 Introduction to single-cell ATAC-seq, CITE-seq and spatial transcriptomics I
15 Introduction to single-cell ATAC-seq, CITE-seq and spatial transcriptomics II
16 Student Project Presentations

Grading Scheme
List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
Requirement % of final grade
Attendance 10%
Homework 1 10%
Project Proposal 10%
Homework 2 10%
Homework 3 10%
Project Presentation 25%
Project Paper 25%

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Li Chen, Ph.D.

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
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https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

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Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
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• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

PHC 6XXX Statistical and Computational Analysis of Genomic Data (3 credit hours)

Semester: Spring 2023
Delivery Format: On-Campus

Instructor Name: Li Chen, Ph.D.
Room Number: TBD
Time: Tuesday (11:45AM-1:40PM); Thursday (12:50PM-1:40PM)
Phone Number: 352-294-5770
Email Address: li.chen1@ufl.edu
Office Hours: Thursday (1:40PM-2:40PM)
Teaching Assistants: None
Preferred Course Communications: e-mail or Canvas message

Prerequisites

PHC 6068/6937 "Introduction to Biostatistical Computing" and PHC6050c "Biostatistical Method" or equivalent. Permission at the discretion of the instructor may be granted if the student is familiar with R programming, linear algebra, maximum likelihood, simple hypothesis testing and linear regression. Students are not required to have any prerequisites in genomics/genetics and an overview of relevant genomic/genetic concepts will be covered in class.

Purpose and Outcome

Course Overview

The course will focus on statistical and computational methods/tools on next generation sequencing data analysis. Topics include introduction and analysis of DNA-seq, RNA-seq, ChIP-seq, ATAC-seq and single-cell genomics. In addition, the course will illustrate how to use R/Bioconductor R packages to handle common types of genomic data.

Course Description

The course will focus on statistical and computational methods/tools on next generation sequencing data analysis (NGS). The course will introduce different techniques and tools to generate and analyze the NGS data, ranging from DNA-seq, RNA-seq, ChIP-seq, ATAC-seq as well as human microbiome data. The course will also cover single-cell genomics such as single-cell RNA-seq, ATAC-seq and spatial transcriptomics. In addition, the course will emphasize on how to use R/Bioconductor R packages to handle common types of genomic data. Learning in the course is primarily assessed by three homework assignments and a final course project, which will be submitted on Canvas. Students are encouraged to bring their own laptops in the class to practice the demo codes for data analysis. The goal of this course is to prepare students for potential research in statistical genomics/computational biology/bioinformatics but is also open to a wider community.

Relation to Program Outcomes

To introduce a variety of statistical/computational methods commonly used in analyzing genomic data, with a focus on RNA-seq, ChIP-seq, ATAC-seq and single-cell genomics.

Course Objectives and/or Goals

Upon successfully completing this course, students should be able to:

1. Describe and interpret the basic principles of next generation sequencing technology

2. Use R/Bioconductor to analyze basic types of genomic data.

3. Synthesize the biological background, data format, data processing steps and software for analyzing next generation sequencing data.

4. Evaluate basic statistical and computational methods for analyzing next generation sequencing data.

Description of Course Content

Topical Outline/Course Schedule

Instructor reserves the right to modify the course schedule with advance notice provided to students.

Week	Date(s)	Topic(s)	Due Dates
1	8/24	Introduction to molecular biology and next generation sequencing technology	
2	8/29, 8/31	Introduction to R programming using RStudio	
3	9/5, 9/7	Introduction to R programming using RStudio	
4	9/12, 9/14	Handling genome data using R/Bioconductor I	
5	9/19, 9/21	Handling genome data using R/Bioconductor II	HW1 due
6	9/26, 9/28	Introduction to DNA-seq I	
7	10/3, 10/5	Introduction to DNA-seq II	
8	10/10, 10/12	Introduction to DNA methylation	Project proposal due
9	10/17, 10/19	Introduction to RNA-seq I	
10	10/24, 10/26	Introduction to RNA-seq II	
11	10/31, 11/2	Introduction to ATAC-seq, ChIP-seq and Hi-C	HW2 due
12	11/7, 11/9	Introduction to single-cell RNA-seq I	
13	11/14, 11/16	Introduction to single-cell RNA-seq II	
14	11/21	Introduction to single-cell ATAC-seq and spatial transcriptomics I	HW3 due
15	11/28, 11/30	Introduction to single-cell ATAC-seq and spatial transcriptomics II	
16	12/5,12/7	Student Project Presentations	Paper due in the same day

Course Materials and Technology

There is no required text.

The course materials will be available through the Canvas course website at https://ufl.instructure.com. It is imperative that students familiarize themselves with Canvas, check Canvas frequently for possible announcements, and make sure that their e-mail account in Canvas is correct and active.

Students will be required to use their own computers in order to complete the assignments, and homework problems will require R programming. R is freely available to download on all operating systems at https://cran.cnr.berkeley.edu. Help can be found at https://www.r-project.org/help.html.

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- https://lss.at.ufl.edu/help.shtml

Academic Requirements and Grading

Assignments

All assignments must be typed (unless otherwise noted in class) and submitted electronically in pdf format on Canvas. Your responses must be supported by both written explanations and the code you generate to produce your result.

Homework: There will be three homework assignments (9/21, 11/2, 11/21) throughout the course. Two weeks will be given to complete homework assignments and more specific information will be given in class. A typical assignment will include a variety of problems. The problems consist of a combination of written questions and programming questions. Students may be asked to: using R packages for genomic data analysis, provide and interpret the findings. *Discussion between students on homework is allowable, but plagiarism is prohibited.* Students must submit their own assignments written in their own words and own code. Copying of code or explanations is prohibited and will warrant a score of zero. Homework solutions will be reviewed in class.

Final Project:

There are two options for the final project: data analysis project and literature review project. Each option will be graded equally. For data analysis project, the instructions are (1) The project should be genetics and genomics relevant; (2) Students can either form groups of 2 or work individually; (3) Students can choose to download publicly available genomic data and reanalyze the genomic data differently than the original authors using methods described in class or newly published statistical/computational methods. Students are also can choose to analyze the in-house genomic data from the PI's lab. For literature review project, the instructions are (1) The project should be genetics and genomics relevant; (2) Student will work

individually; (3) The literature review should focus on reviewing and summarizing; (4) The review should compare at least 5computational/statistical methods and summarize the pros and cons of each method.

For data analysis project, a final report is required and should contain an introduction and description of the data, the biological question of interest, detailed descriptions of the analysis and statistics performed, and a discussion of the results. The final report should also include the R code used in the analysis. For literature review project, a final report is required and should contain an introduction of the background, detailed descriptions of the compared methods in algorithms, and a discussion of the results of these methods performed on simulation/result data analysis. For both types of projects, a brief project proposal (3-pages) is part of the final project grade In addition to the report, an in-class presentation (10-15 min) will be scheduled and the exact details will depend on the size of the class. The final report is due in the same day of the presentation.

Details regarding expectations of the final report will be discussed in class.

Grading

Requirement	Due date	% of final grade
Attendance	NA	10%
Homework 1	9/21	10%
Project Proposal	10/12	10%
Homework 2	11/2	10%
Homework 3	11/21	10%
Project Presentation	12/5,12/7	25%
Project Paper	12/7	25%

Point system used:

Points	**93-100**	**90-92**	**87-89**	**83-86**	**80-82**	**77-79**	**73-76**	**70-72**	**67-69**	**63-66**	**60-62**	**Below 60**
Earned Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Letter grade to grade point conversions are fixed by UF and cannot be changed.

Letter	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade	4	3.67	3.33	3	2.67	2.33	2	1.67	1.33	1	0.67	0	0	0	0	0

Please be aware that a C- is not an acceptable grade for graduate students. The GPA for graduate students must be 3.0 based on 5000 level courses and above to graduate. A grade of C counts toward a graduate degree only if based on credits in courses numbered 5000 or higher that have been earned with a B+ or higher.

More information on UF grading policy may be found at:
http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades

Exam Policy

Policy Related to Homework or Other Work

Full credit can be considered for assignments turned in on the due date (by 11:59pm). NO credit given for late submission for unexcused. If you are out sick, no deduction will be taken if you inform me before the homework is due that you are ill. Please stay home and do not get other people sick.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (http://helpdesk.ufl.edu/) correspondence. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

Attendance will be taken for a grade and students are expected to be at all class sessions and are responsible for any missed materials. If you know you will be absent, please notify me in advance.

Requirements for class attendance and make-up assignments, and other work in this course are consistent with university policies that can be found at:
https://gradcatalog.ufl.edu/graduate/regulations/

Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance). Additional information can be found here: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Student Expectations, Roles, and Opportunities for Input

Expectations Regarding Course Behavior

Students are expected to spend an average of at least 2-1/2 hours per week per credit hour on the course exclusive of class time. This time includes but is not limited to reading, research, preparation for class, and course work. Cell phones should not be used in class. Laptops are permissible and encouraged for notetaking or class related exercises. Questions in class are highly encouraged and should be addressed to the entire class to benefit everyone. Private conversations regarding course material should be conducted outside of class.

Communication Guidelines

For posting on Canvas or e-mails, please adhere to Netiquette Guidelines:
http://teach.ufl.edu/wpcontent/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

"**We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity**."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:
https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/
http://gradschool.ufl.edu/students/introduction.html

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Recording Within the Course:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a

recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Link to full policy: http://facstaff.phhp.ufl.edu/services/resourceguide/getstarted.htm

Online Faculty Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/ . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/publicresults/.

SUPPORT SERVICES

Accommodations for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/ . It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: http://www.counseling.ufl.edu. Online and in person assistance is available.

- You Matter We Care website: http://www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.

- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: https://shcc.ufl.edu/

- Crisis intervention is always available 24/7 from:
  Alachua County Crisis Center:
  (352) 264-6789
  http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu.

Course|New for request 17699

Info

Request: VME 6XXX Ecotoxicology
Description of request: This course will present conceptual and fundamental knowledge required to discern the impacts of environmental contaminants on wildlife and ecosystems.
Submitter: Nancy Denslow ndenslow@ufl.edu
Created: 11/7/2022 11:11:00 AM
Form version: 3

Responses

Recommended Prefix
Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response:
VME

Course Level
*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). *
Note: 5000 level courses must be submitted through the undergraduate new course process

Response:
6

Course Number
Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:
XXX

Lab Code
Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:
None

Category of Instruction
Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
* *

Response:
Intermediate

• 1000 level = Introductory undergraduate
• 2000 level = Introductory undergraduate
• 3000 level = Intermediate undergraduate
• 4000 level = Advanced undergraduate
• 5000 level = Introductory graduate
• 6000 level = Intermediate graduate
• 7000 level = Advanced graduate
• 4000/5000= Joint undergraduate/graduate
• 4000/6000= Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)*

Course Title
*Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles. *

Response:
Ecotoxicology

Transcript Title
Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response:
Ecotoxicology

Degree Type
Select the type of degree program for which this course is intended.

Response:
Graduate

Delivery Method(s)
Indicate all platforms through which the course is currently planned to be delivered.

Response:
Online

Co-Listing
Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response:
No

Effective Term
Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the

department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Earliest Available

Effective Year
Select the requested year that the course will first be offered. See preceding item for further information.

Response:
Earliest Available

Rotating Topic?
Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response:
No

Repeatable Credit?
Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response:
No

Amount of Credit
Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
3

S/U Only?
Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:
No

Contact Type
Select the best option to describe course contact type. This selection determines whether base hours or

headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:
Regularly Scheduled

• Regularly Scheduled [base hr]
• Thesis/Dissertation Supervision [1.0 headcount hr]
• Clinical Instruction [1.0 headcount hr]
• Directed Individual Studies [0.5 headcount hr]
• Supervision of Student Interns [0.8 headcount hr]
• Supervision of Teaching/Research [0.5 headcount hr]
• Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Course Type
*Please select the type of course being created. These categories are required by the Florida Board of Governors. *

Response:
Lecture

Weekly Contact Hours
Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response:
3

Course Description
Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:
This course will present conceptual and fundamental knowledge required to discern the impacts of environmental contaminants on wildlife and ecosystems.

Prerequisites
Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
Courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
Permission of the program

Completing Prerequisites on UCC forms:

• Use “&” and “or” to conjoin multiple requirements; do not used commas, semicolons, etc.

• Use parentheses to specify groupings in multiple requirements.
• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
• "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.
• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

*Example: *
*Example: *
<ol>
• Prereq published language: BSC 2010/2010L & BSC 2011/2011L & two additional Science or Math classes.
*• Prereq logic enforced for registration: BSC 2010 and BSC 2010L and BSC 2011 and BSC 2011L and (two additional Science or Math courses = any courses that are BSC 2### or greater, FAS2### or greater, BOT2### or greater, PCB2### or greater, BCH2### or greater, ZOO2### or greater, MCB 2### or greater, CHM 2### or greater, PHY 2### or greater, or STA 2### or greater).
*

Co-requisites
Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response:
None

Rationale and Placement in Curriculum
Explain the rationale for offering the course and its place in the curriculum.

Response:
Based upon a survey of University of Florida courses offered in the College of Public Health and Health Professions, the College of Veterinary Medicine, and at the Center for Environmental and Human Toxicology, no other courses cover sub-lethal responses (molecular, physiological) to contaminants in an array of species at this level of detail. There is currently an in-person graduate-level course in ecotoxicology and risk assessment that is given in a seminar format for graduate students in the Toxicology Program. This online course will provide students with fundamental knowledge of emergent methodologies used to assess biological responses to environmental contaminants. Practical applications for the use of molecular and physiological data in ecotoxicology will be conveyed via case studies and several "real-world" examples. This course will benefit students in the fields of environmental toxicology, ecology, molecular toxicology, and aquatic toxicology as well as other areas of environmental sciences.

Course Objectives
Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:
Upon completion of the course, students will be able to apply their knowledge to identify and quantify biological impacts of environmental contaminants and will be able to discuss the impact of chemical exposures on ecosystem health and function. The course provides practical knowledge and skills for assessing environmental chemicals in organisms and ecosystems. Students will be able to critically evaluate risks associated with chemical exposures. Students will also be knowledgeable on emerging chemicals of concern and state-of-the-art methodology used to measure organismal responses at the molecular and physiological level. Students will be able to interpret ecotoxicological data to predict mechanisms of action of chemicals.

Course Textbook(s) and/or Other Assigned Reading
*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks. *

Response:
Fundamentals of Ecotoxicology: The Science of Pollution, Fifth Edition.
Michael C. Newman,
CRC Press, Taylor and Francis Group
2020
ISBN-13: 978-0815354024

And additional readings from the literature:
Examples include:

Belek, Nesli, Belda Erkmen, Aylin Sepici Dinçel, and Aysel Caglan Gunal. "Does persistent organic pollutant PFOS (perfluorooctane sulfonate) negative impacts on the aquatic invertebrate organism, Astacus leptodactylus [Eschscholtz, 1823]." Ecotoxicology (2022): 1-14.

Beale, D.J., Sinclair, G., Shah, R., Paten, A., Kumar, A., Long, S.M., Vardy, S. and Jones, O.A., 2022. A review of omics-based PFAS exposure studies reveals common biochemical response pathways. Science of The Total Environment, p.157255.
Leroux, Nathalie, Mahboubeh Hosseinzadeh, Alberto Katsumiti, Cinta Porte, and Miren P. Cajaraville. "Lipidomic analysis of mussel hemocytes exposed to polystyrene nanoplastics." Environmental research 214 (2022): 113763.

Weekly Schedule of Topics
Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:
Weekly Schedule of Topics
Each module will incorporate 3 contact hours. Two hours will include a lecture on the topic with examples of how the concepts are applied in the field. The third hour will incorporate discussion of a reading assignment including a response/critique to two other student responses.

Module 1: Introduction to Ecotoxicology and Major classes of contaminants / Assignment #1 / Quiz #1
This module will cover the historical and current need for ecotoxicology. Sources of pollutants will be discussed including inorganics (metals, metalloids, anionic contaminants, gasses), organics (PAHs, pesticides, and others), radiation, nanomaterials, microplastics, and thermal pollution.

Module 2: Uptake, biotransformation, detoxification, elimination, and accumulation / Assignment #2 / Quiz #2
This module will cover reaction orders of contaminant uptake, enzymatic degradation of chemicals in organisms, elimination kinetics and the roles of organs in removing chemicals from biological systems, and chemical properties related to bioaccumulation in tissues.

Module 3: Factors influencing bioaccumulation / Assignment #3 / Quiz #3
This module will present concepts of bioavailability, routes of exposure, chemical-physiological properties of compounds that influence bioavailability (inorganic and organic contaminants) and the role of biotic and abiotic factors in the uptake of environmental pollutants such as temperature, pH, salinity, dissolved organic matter, and allometry.

Module 4: Bioaccumulation from food and trophic transfer / Assignment #4 / Quiz #4
This module will cover the quantification of chemical bioaccumulation from food, assimilation

from food, and trophic transfer estimation of metals as well as inorganic and organic contaminants. Specific examples will be discussed to demonstrate how chemical bioaccumulation can lead to adverse effects in ecological keystone species.

Module 5: Molecular Effects and biomarkers / Assignment #5 / Quiz #5
This module will present the concept of bioindicators of exposure and effect. Material will include organic compound detoxification, Phase 1 enzymes, Phase 2 enzymes, metallothionein, stress proteins, oxidative stress response, antioxidant response, and DNA / protein / lipid modifications.

Module 6: Cells Tissues and Organs / Assignment #6 / Quiz #6
This module will cover general cytotoxicity and histopathology. Necrosis, apoptosis, inflammation, gene and chromosome damage, and cancer (examples will potentially include gills and cancer).

Module 7: Sublethal effects to individuals - Part 1 / Assignment #7 / Quiz #7
This module will introduce basic physiology related to stress, growth, development, teratology, sexual characteristics, and developmental stability. The material will stress the importance of assessing these physiological responses following environmental chemical exposure.

Module 8: Sublethal effects to individuals - Part 2 / Assignment #8 / Quiz #8
This module will cover reproduction, immunology, behavior, within the context of detecting sublethal effects. The material will stress the importance of assessing these physiological responses following environmental chemical exposure.

Mid-term exam

Module 9: Acute and Chronic Lethal effects to Individuals / Assignment #9 / Quiz #9
This module will cover the types of toxicity tests used for lethality, dose-response models, fitting data to models, incipiency, survival time, time response models, fitting survival time, mixture models, and biotic and abiotic qualities.

Module 10: Effect on Populations/ Assignment #10 / Quiz #10
This module will cover population-level impacts of environmental contaminants, epidemiology, rules for disease association, population dynamics, population response, demographic change, energy allocation by individuals in populations, population genetics, acquisition of tolerance, measuring and interpreting genetic change.

Module 11: Effects to Communities, Ecosystems, and Global effects/ Assignment #11 / Quiz #11
This module will cover practical assessment of community-level effects, including predation, grazing, competition, community indices, community structure, and ecosystem function. The characteristics of environmental chemical pollution within regions, continents, hemispheres, biosphere, global warming, and the movement of persistent organic pollutants on a global scale, will be discussed
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Module 12: Cell-based methods to assess effects from environmental contamination/ Assignment #12/ Quiz #12
This module will present technologies used to decipher chemical mechanism of action. The module will present concepts related to receptor binding and transactivation assays, cytotoxicity, mutagenicity, in both bacterial and eukaryotic cells.

Module 13: Read across methodologies / Assignment #13 / Quiz #15
This module will cover species sensitivity distributions, quantitative structure-activity relationship (QSARs), and in silico molecular methods (molecular target sequence similarity).

Module 14: OMICS technologies A / Assignment #14/ Quiz #14
This module will cover holistic approach, metagenomics, transcriptomics, proteomics, of non-model systems.

Module 15: OMICS technologies B / Assignment #15/ Quiz #15

This module will cover exposomics, metabolomics, lipidomics of non-model systems.

Final Exam

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response:
Participation on discussion board is expected and worth 10% of the final grade. Module quizzes/assignments will comprise 20% of the total grade, one midterm exam will comprise 20%, one group project will comprise 20% of the total grade, and one final exam will comprise 40% of the total grade. Each module will include either a quiz or assignment (20 total over 15 modules). Each quiz will contain 10 questions extracted from the lecture notes and assigned readings. Students will be required to select the correct answer from a list of multiple choices. The questions will include recall, inferences based on data tables, and applications of major concepts to complete a given task. Quizzes will be timed and limited to 10 minutes to ensure academic integrity. For the assignments, students will be provided with either a reading assignment regarding the week's topic or discussions on how to apply principles learned to current global issues (various examples include contaminated sites, climate change, microplastics in oceans). Students will be expected to convey their thoughts to the group and discuss their rationale on the discussion board. Students will also be responsible for evaluating two other student analyses for a total of three discussions per week. The assignments will be practical applications of the lessons to demonstrate comprehension, analysis, and synthesis of the material in each module. Example module assignments include:

Module 6 – Cells Tissues and Organs
Each student will be presented with a different chemical of concern for ecosystems. Students will be required to research target organs and mechanism of action of toxicity. Students will present what they research to the class via a short, recorded video. Students will be asked to describe a method or experiment to quantify the impact of toxicity.

Rubric:
Exceeds standard – student correctly categorizes contaminant of concern based on target organ and mechanism of action.
Meets standard – student incorrectly characterizes chemical in terms of its biological effect; may omit one or two organ systems.
Nearly meets standard – student incorrectly characterizes chemical in terms of its biological effect; omits multiple organ systems or cannot identify all mechanisms of toxicity.
Does not meet standard – student is unable to identify target tissues nor mechanism of action of chemical.

Module 8: Sublethal effects to individuals
Students will be provided with an example of a contaminated site. Using concepts from lecture, students will discuss potential impacts of wildlife at the site related to reproduction, immunology, or behavior. The student will be asked to provide rationale as to why certain sublethal effects are expected or not expected based upon chemicals present at the site. Students will come up with a priority list of sublethal effects to be assessed if one was to monitor the contaminated sites, and its remediation, over time.

Rubric:
Exceeds standard – student correctly understands the relationship between chemical mechanism of action and downstream adverse effects in organisms.
Meets standard – student omits 1-2 biological responses
Nearly meets standard – student omits 3-4 biological responses
Does not meet standard – student does not understand how molecular responses to a chemical

equate into higher-level biological responses

Module 14: OMICS technologies A / Assignment #14/ Quiz #14
Student will be presented with a scenario that includes a contaminated site and multiple species. Based upon information, students will develop a monitoring program to assess impacts of environmental chemicals at the site over time using omics methodology. Students will discuss the advantages and disadvantages of different methods and will be asked to explain how such data provides information about population level effects.

Rubric:
Exceeds standard – Demonstrates above average understanding of strengths and weaknesses of OMICS and computational toxicology in relation to ecological systems. Student has a firm understanding of the technical and practical limitations of the science.
Meets standard – Student can describe the pros and cons of specific methodology, and can rationalize specific techniques for certain species in polluted environments
Nearly meets standard – Students can describe some basic differences between OMICS technologies
Does not meet standard – Student cannot explain fundamental principles of the technology, nor can they describe how the technology can be used to measure toxicological responses.

Evaluation of Grades

Participation and Discussion Boards	100 points =	10% final grade
Module Quiz and/or Assignment (20 total)	200 points =	20% final grade
Midterm Exam (1 total)	200 points =	20% final grade
Group Project	200 points =	20% final grade
Final Exam	300 points =	30% final grad
Total Points	1000 points =	100% final grade

Grading Scale

Percent	Grade	Grade Points
90.0 - 100.0	A	4.00
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84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 77.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:
UF Graduate Catalog
Grades and Grading Policies

Students Requiring Accommodations
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receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

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Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

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If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources
E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. https://www.crc.ufl.edu
Library Support, Various ways to receive assistance with respect to using the libraries or finding resources. https://www.cms.uflib.ufl.edu/ask/
Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://www.teachingcenter.ufl.edu
Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. https://www.writing.ufl.edu/writing-studio/
Student Complaints Campus: https://www.dso.ufl.edu/documents/
On-Line Students Complaints: https://www.distance.ufl.edu/student-complaint-process

Instructor(s)
Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:
Nancy D. Denslow and Christopher J. Martyniuk

Attendance & Make-up
Please confirm that you have read and understand the University of Florida Attendance policy.
A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response:
Yes

Accomodations
Please confirm that you have read and understand the University of Florida Accommodations policy.
A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response:
Yes

UF Grading Policies for assigning Grade Points
Please confirm that you have read and understand the University of Florida Grading policies.
Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

• https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response:
Yes

Course Evaluation Policy
Course Evaluation Policy
Please confirm that you have read and understand the University of Florida Course Evaluation Policy.
A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/public-results/. Students will be notified when the evaluation period opens, and can complete evaluations through the

email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

* *

Response:
Yes

Ecotoxicology

VME …….. Section: xx

Location: Online

Academic Term: xx

Credits: 3

Instructors:

Name: Nancy Denslow and Christopher J. Martyniuk

Email Address: ndenslow@ufl.edu, cmartyn@ufl.edu

Office Phone: Online

Office Hours: Online

Teaching Assistants:

Please contact through the Canvas website

- Name of TA, email address, office location, office hours

Course description

This course will present conceptual and fundamental knowledge required to discern the impacts of environmental contaminants on wildlife and ecosystems. This online course will provide students with fundamental knowledge of emergent methodologies used to assess biological responses to environmental contaminants. Practical applications for the use of molecular and physiological data in ecotoxicology will be conveyed via case studies and several "real-world" examples. This course will benefit students in the fields of environmental toxicology, ecology, molecular toxicology, and aquatic toxicology as well as other areas of environmental sciences.

Rationale and Placement

Based upon a survey of University of Florida courses offered in the College of Public Health and Health Professions, the College of Veterinary Medicine, and at the Center for Environmental and Human Toxicology, no other courses cover sub-lethal responses (molecular, physiological) to contaminants in an array of species at this level of detail. There is currently an in-person graduate-level course in ecotoxicology and risk assessment that is given in a seminar format for graduate students in the Toxicology Program. This online course will provide students with fundamental knowledge of emergent methodologies used to assess biological responses to environmental contaminants. Practical applications for the use of molecular and physiological data in ecotoxicology will be conveyed via case studies and several "real-world" examples. This course will benefit students in the fields of environmental toxicology, ecology, molecular toxicology, and aquatic toxicology as well as other areas of environmental sciences.

Course Pre-Requisites / Co-Requisites

Permission of the program

Course Objectives

Upon completion of the course, students will be able to apply their knowledge to identify and quantify biological impacts of environmental contaminants and will be able to discuss the impact of chemical exposures on ecosystem health and function. The course provides practical knowledge and skills for assessing environmental chemicals in organisms and ecosystems. Students will be able to critically

evaluate risks associated with chemical exposures. Students will also be knowledgeable on emerging chemicals of concern and state-of-the-art methodology used to measure organismal responses at the molecular and physiological level. Students will be able to interpret ecotoxicological data to predict mechanisms of action of chemicals.

Materials and Supply Fees

None

Required Textbooks and Software

Fundamentals of Ecotoxicology: The Science of Pollution, Fifth Edition.
Michael C. Newman,
CRC Press, Taylor and Francis Group
2020
ISBN-13: 978-0815354024
The course will also utilize recently published journal articles to illustrate the effects of emerging contaminants on species. Examples include:

Belek, Nesli, Belda Erkmen, Aylin Sepici Dinçel, and Aysel Caglan Gunal. "Does persistent organic pollutant PFOS (perfluorooctane sulfonate) negative impacts on the aquatic invertebrate organism, Astacus leptodactylus [Eschscholtz, 1823]." Ecotoxicology (2022): 1-14.

Beale, D.J., Sinclair, G., Shah, R., Paten, A., Kumar, A., Long, S.M., Vardy, S. and Jones, O.A., 2022. A review of omics-based PFAS exposure studies reveals common biochemical response pathways. Science of The Total Environment, p.157255.
Leroux, Nathalie, Mahboubeh Hosseinzadeh, Alberto Katsumiti, Cinta Porte, and Miren P. Cajaraville. "Lipidomic analysis of mussel hemocytes exposed to polystyrene nanoplastics." Environmental research 214 (2022): 113763.

Course Schedule

Each module will incorporate 3 contact hours. Two hours will include a lecture on the topic with examples of how the concepts are applied in the field. The third hour will incorporate discussion of a reading assignment including a response/critique to two other student responses.

Module 1: Introduction to Ecotoxicology and Major classes of contaminants / Reading Assignment #1 / Quiz #1
This module will cover the historical and current need for ecotoxicology. Sources of pollutants will be discussed including inorganics (metals, metalloids, anionic contaminants, gasses), organics (PAHs, pesticides, and others), radiation, nanomaterials, microplastics, and thermal pollution.

Module 2: Uptake, biotransformation, detoxification, elimination, and accumulation / Reading Assignment #2 / Quiz #2
This module will cover reaction orders of contaminant uptake, enzymatic degradation of chemicals in organisms, elimination kinetics and the roles of organs in removing chemicals from biological systems, and chemical properties related to bioaccumulation in tissues.

Module 3: Factors influencing bioaccumulation / Reading Assignment #3 / Quiz #3

This module will present concepts of bioavailability, routes of exposure, chemical-physiological properties of compounds that influence bioavailability (inorganic and organic contaminants) and the role of biotic and abiotic factors in the uptake of environmental pollutants such as temperature, pH, salinity, dissolved organic matter, and allometry.

Module 4: Bioaccumulation from food and trophic transfer / Reading Assignment #4 / Quiz #4
This module will cover the quantification of chemical bioaccumulation from food, assimilation from food, and trophic transfer estimation of metals as well as inorganic and organic contaminants. Specific examples will be discussed to demonstrate how chemical bioaccumulation can lead to adverse effects in ecological keystone species.

Module 5: Molecular Effects and biomarkers / Reading Assignment #5 / Quiz #5
This module will present the concept of bioindicators of exposure and effect. Material will include organic compound detoxification, Phase 1 enzymes, Phase 2 enzymes, metallothionein, stress proteins, oxidative stress response, antioxidant response, and DNA / protein / lipid modifications.

Module 6: Cells Tissues and Organs / Reading Assignment #6 / Quiz #6
This module will cover general cytotoxicity and histopathology. Necrosis, apoptosis, inflammation, gene and chromosome damage, and cancer (examples will potentially include gills and cancer).

Module 7: Sublethal effects to individuals - Part 1 / Reading Assignment #7 / Quiz #7
This module will introduce basic physiology related to stress, growth, development, teratology, sexual characteristics, and developmental stability. The material will stress the importance of assessing these physiological responses following environmental chemical exposure.

Module 8: Sublethal effects to individuals - Part 2 / Reading Assignment #8 / Quiz #8
This module will cover reproduction, immunology, behavior, within the context of detecting sublethal effects. The material will stress the importance of assessing these physiological responses following environmental chemical exposure.

Mid-term exam – 1 h

Module 9: Acute and Chronic Lethal effects to Individuals / Reading Assignment #9 / Quiz #9
This module will cover the types of toxicity tests used for lethality, dose-response models, fitting data to models, incipiency, survival time, time response models, fitting survival time, mixture models, and biotic and abiotic qualities.

Module 10: Effect on Populations/ Reading Assignment #10 / Quiz #10
This module will cover population-level impacts of environmental contaminants, epidemiology, rules for disease association, population dynamics, population response, demographic change, energy allocation by individuals in populations, population genetics, acquisition of tolerance, measuring and interpreting genetic change.

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Module 12: Cell-based methods to assess effects from environmental contamination/ Reading Assignment #12/ Quiz #12
This module will present technologies used to decipher chemical mechanism of action. The module will present concepts related to receptor binding and transactivation assays, cytotoxicity, mutagenicity, in both bacterial and eukaryotic cells.

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This module will cover species sensitivity distributions, quantitative structure-activity relationship (QSARs), and in silico molecular methods (molecular target sequence similarity).

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This module will cover holistic approach, metagenomics, transcriptomics, proteomics, of non-model systems.

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This module will cover exposomics, metabolomics, lipidomics of non-model systems.

Final Exam – 1 h

Grading Scheme

Participation on discussion board is expected and worth 10% of the final grade. Module quizzes/assignments will comprise 20% of the total grade, one midterm exam will comprise 20%, one group project will comprise 20% of the total grade, and one final exam will comprise 40% of the total grade. Each module will include either a quiz or assignment (20 total over 15 modules). Each quiz will contain 10 questions extracted from the lecture notes and assigned readings. Students will be required to select the correct answer from a list of multiple choices. The questions will include recall, inferences based on data tables, and applications of major concepts to complete a given task. Quizzes will be timed and limited to 10 minutes to ensure academic integrity. For the assignments, students will be provided with either a reading assignment regarding the week's topic or discussions on how to apply principles learned to current global issues (various examples include contaminated sites, climate change, microplastics in oceans). Students will be expected to convey their thoughts to the group and discuss their rationale on the discussion board. Students will also be responsible for evaluating two other student analyses for a total of three discussions per week. The assignments will be practical applications of the lessons to demonstrate comprehension, analysis, and synthesis of the material in each module. Example module assignments include:

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Each student will be presented with a different chemical of concern for ecosystems. Students will be required to research target organs and mechanism of action of toxicity. Students will present what they

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Students will be provided with an example of a contaminated site. Using concepts from lecture, students will discuss potential impacts of wildlife at the site related to reproduction, immunology, or behavior. The student will be asked to provide rationale as to why certain sublethal effects are expected or not expected based upon chemicals present at the site. Students will come up with a priority list of sublethal effects to be assessed if one was to monitor the contaminated sites, and its remediation, over time.

Rubric:
Exceeds standard – student correctly understands the relationship between chemical mechanism of action and downstream adverse effects in organisms.
Meets standard – student omits 1-2 biological responses
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Evaluation of Grades

Assignment	***Total Points***	***Percentage of Final Grade***
Participation and Discussion Boards	100	10%
Module Quiz and/or Assignment (20 total)	200	20%
Midterm Exam (1 total)	200	20%
Group Project	200	20%
Final Exam	300	30%
Total Points	1000	100%

Grading Scale

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72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

Attendance Policy, Class Expectations, and Make-Up Policy

Students are expected to complete each module in a timely fashion and complete each assignment every week. Missed quizzes or exams will be discussed with the instructor. Excused absences must be consistent with university policies in the Graduate Catalog and require appropriate documentation. Additional information can be found in Attendance Policies.

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Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints