

Graduate Curriculum Committee

Minutes

November 14, 2024

Meeting Materials

Voting Conducted
via Zoom

I. Presentation and review of the Minutes from the October 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.

COP – Medicinal Chemistry

1. PHA 6XXX *Applied Statistics for Data Analysis in Pharmaceutical and Forensic Science*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/19609>

The proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

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 – Physiology and Aging

1. GMS 6471 Fundamentals of Physiology and Functional Genomics I

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18926>

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

MED – General Medicine

2. GMS 7877 *Responsible Conduct of Research*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20664>

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

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.

CLAS – Geological Sciences

1. GLY 5XXXC *Analytical Methods in Earth and Environmental Sciences*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20471>

The 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 6XXX *Cell Physiology & Biophysics*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/19860>

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

COE – School of Human Development and Organizational Studies in Education

2. EDA 6XXX *Applied Education Policy Research*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20342>

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

3. EDH 6XXX *Higher Education Environments*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/19986>

The proposal has been approved by the GCC.

4. EDH 7XXX *Advanced Scholarly Writing for Publication*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20056>

The proposal has been approved by the GCC.

HHP – Tourism, Hospitality, & Event Management

5. HFT 6XXX *Advanced Strategic Event Management*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20377>

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

PHHP – Public Health

6. HSA 6XXX *Long-Term Care Management*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20626>

The proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

7. HSA 6XXX *Management of Artificial Intelligence in Healthcare*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20623>

The proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

8. HSA 6XXX *Revenue Cycle Management in Healthcare Organizations*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20624>

The proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

9. HSA 6XXX *Value-Based Care*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20625>

The proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

PHHP – Environmental and Global Health

10. PHC 6XXX *Applying a One Health Framework to Public Health Issues*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20550>

The proposal has been conditionally approved. Once revised, the GCC wishes to review the proposal again.

PHHP – Public Health

11. PHC 6XXXL *Public Health Methods Statistical Programming Lab*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20622>

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

CLAS – Political Science

12. POS 6XXX *Professional Development in Political Science*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/19933>

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

COE – School of Teaching and Learning

13. TSL 6XXX *Technology for Language and Reading Education*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20294>

The proposal has been conditionally approved. Once revised, the proposal can be administratively approved after further review by the Chair of the GCC.

vi. Information Items:

1. 20670 – [Transfer of courses from General Engineering to Engineering Education](#)
2. [AEB 6933](#) – 19699 – Change maximum repeatable credit
3. [CRW 6331](#) – 19917 – Change maximum repeatable credit
4. [ECO 7115](#) – 18737 – Change to course title and co-requisites
5. [GMS 6851](#) – 20579 – Change to course title
6. [GMS 7906](#) – 20223 – Change prerequisites
7. [HSA 6177](#) – 20642 – Change to course title, description, and objectives
8. [LNW 6905](#) – 20058 – Change to course title and maximum repeatable credit
9. [MHS 6471](#) – 20164 – Change prerequisites
10. [MHS 6831](#) – 20165 – Change to course title and co-requisites
11. [MHS 7600](#) – 20166 – Change prerequisites
12. [MHS 7610](#) – 20061 – Change to course type
13. [PLP 6905](#) – 20543 – Change maximum repeatable credit
14. [PLP 6921](#) – 20546 – Change maximum repeatable credit
15. [QMB 7933](#) – 20635 – Change maximum repeatable credit
16. [SPN 6845](#) – 20312 – Change prerequisites
17. [STA 6942](#) – 20040 – Change maximum repeatable credit
18. [SYA 7979](#) – 19853 – Change maximum repeatable credit
19. [SYA 7980](#) – 19854 – Change maximum repeatable credit
20. [WST 6935](#) – 19993 – Change maximum repeatable credit

Graduate Curriculum Committee

Agenda

December 12, 2024

Meeting Materials

Voting Conducted
via Zoom

I. Presentation and review of the Minutes from the November 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.

MED – Health Outcomes and Biomedical Informatics

1. GMS 6846 *Systematic Review and Meta-Analysis in Clinical, Health Services Research and Public Health*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20696>

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

PHHP – Health Science

2. PHC 6149 *Public Health Leadership*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20694>

This is a request to change the change credit hours and course description.

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.

SFRC – Fisheries, Aquatic Sciences, and Geomatics

1. FAS 6XXXC *Fish & Limnology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20034>

An applied course that explores the multidisciplinary nature of fisheries science through a detailed examination of freshwater fish and habitats. Includes discussion of relevant fundamental concepts in ecology, chemistry, and geography. Practical skills in field sampling and data handling as well as skills (e.g. grant writing, science communication) and contemporary issues (e.g., ethical uses of AI tools) pertinent to fishery management and research will be applied.

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 *Natural Language Processing in Education Research*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/19061>

A comprehensive overview of NLP techniques and applications in educational research, with an emphasis on Python-based text analysis and machine learning integration.

2. EDH 6XXX *Data Management and Quantitative Workflow in Education Research*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/18439>

Students will learn the fundamentals of data management and quantitative research workflow in education research using common open-source tools. Topics include project organization, version control, data cleaning, data visualization, and performing exploratory data analyses. Students will also learn some special coding and/or data gathering techniques and, throughout the course, employ coding best-practices so that their workflow may be shared and easily reproduced.

CBA – Finance, Insurance and Real Estate

3. FIN 6XXX *Behavioral Finance*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20098>

Explores how psychological biases lead to poor financial decision making and how security market prices can be influenced by psychological bias. Also gives insights of how behavioral finance complements the traditional financial theory paradigms and sheds light on the behavior of asset prices, corporate finance, and investor behavior.

4. FIN 6XXX *Decentralized Finance Project*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20135>

Students work on a project in which student groups will formulate and present business proposals to be deployed on blockchain. To prepare students for constructing their proposals, course lectures will focus upon hurdles for blockchain businesses and solutions employed in practice to overcome those hurdles.

5. FIN 6XXX *Financial Intermediation, Financial Services and Technology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20100>

An in-depth exploration of the theory and practice of financial intermediation is provided. An emphasis is on a comprehensive understanding of the role of financial intermediaries, their function in various financial markets, the services they provide, and the regulatory framework that governs these institutions. Special attention is given to how technology has revolutionized the landscape of financial intermediation, giving rise to innovative products and services.

6. FIN 6XXX *Financial Modeling for Investments*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20237>

Utilizes excel, Python and some basic R programming for important value creating financial activities such as securities modeling, portfolio optimization, value at risk analysis, and gathering/processing financial data. Hands on applications are emphasized.

7. FIN 6XXX *Introduction to Blockchain and Cryptocurrencies*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20126>

Students are introduced to the fundamental building blocks of blockchain technology and its applications in cryptocurrencies, stablecoins, decentralized finance (DeFi), and non-fungible tokens (NFTs).

8. FIN 6XXX *Natural Language Processing & Generative AI for Finance*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20236>

Students learn the principles and applications of natural language processing (NLP) and generative AI in finance. The curriculum covers theoretical foundations and practical implementations in tasks like sentiment analysis, automated trading, risk assessment, fraud detection, and financial forecasting.

CLAS – Geological Sciences

9. GLY 6XXX *Survey of Geobiology and Astrobiology*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20157>

Survey of the parallel evolution of life and the environment. Chemical and physical processes in the atmosphere, hydrosphere, cryosphere and the solid earth influence life

processes. In turn, life can influence chemical and physical processes on our planet. Explores the concept of life as a geological agent and examines the interaction between biology and the earth system during the roughly 4 billion years since life first appeared.

DCP – Interior Design

10.IND 6973 *Project in Lieu of Thesis*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20560>

Completion of an original research-informed design project that addresses an identified issue or need with the field of Interior Design that satisfies departmental requirements for a Project in Lieu of Thesis (PILOT). A PILOT is based on a specific design-focused topic that results in a written description of the problem identified and its significance, a synthesis of relevant literature, a description of programmatic considerations, proposed design solutions, and implications.

CLAS – Jewish Studies

11.JST 6XXX *The Holocaust in the Courtroom*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20616>

Introduces M.A. and Ph.D. students in humanities and social sciences to the major postwar trials concerning the Holocaust. Major questions concern the relevant laws under which perpetrators were tried; ways in which the Holocaust was represented through prosecution, documentary and visual evidence, and testimony; and the ways in which national memory affected outcomes of major trials.

COE – School of Teaching and Learning

12.MAE 6XXX *Mathematics Teaching and Learning in Higher Education*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20683>

Strategies for teaching mathematics in higher education. Explore learning theories, evidence-based teaching methods, and assessment strategies through readings, activity design, case discussions, and classroom observations.

PHPH – Public Health

13.PHC 6XXX *Public Health Methods 1: Quantitative Foundations*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20700>

This is the first of two courses that focuses on public health/global health research and practice using quantitative and qualitative methods. This course, taken in conjunction with a lab, focuses on principles of epidemiology and biostatistics, emphasizing application of

epidemiological methods, quantitative data collection, and quantitative data analysis and interpretation.

14.PHC 6XXX *Public Health Methods II: Applications for Practice*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20702>

The second of two courses focusing on public health/global health research and practice using quantitative and qualitative methods. This course introduces qualitative and mixed methods and their relevance to rigorous public health research and practice, emphasizing using qualitative methods to conduct needs and capacity assessments within communities and organizations.

CLAS – Political Science

15.POS 6XXX *Maximum Likelihood Estimation*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20041>

Explores Maximum Likelihood Estimation (MLE) and its applications in political science. Introduces Generalized Linear Models (GLMs) for categorical and limited dependent variables with a focus on political phenomena. Delves into survival analysis for modeling duration-dependent political data. Emphasizes practical application and advanced statistical understanding in American politics, comparative politics, and international relations.

CALS – Soil and Water Science

16.SWS 6XXX *Intro Modeling Soil, Water, and Ecosystem Processes*

Link to proposal: <https://secure.aa.ufl.edu/Approval/reports/20601>

The course is an introduction into predictive modeling of soil, water, and ecosystem processes. Students learn from the ground up how to transform a conceptual model into a mathematical framework that then will be coded up in a simulation model. This hands-on experience serves the students to recognize how data can best serve models and how models can be used to interpret real world data.

vi. Information Items:

1. [CRW 6130](#) – 20592 – Change maximum repeatable credit
2. [DEN 6905](#) – 20748 – Change maximum repeatable credit
3. [DEN 6935](#) – 20746 – Change maximum repeatable credit
4. [DEN 6942](#) – 20743 – Change maximum repeatable credit
5. [FAS 6355C](#) – 20080 – Change course description
6. [FYC 6901](#) – 20318 – Change maximum repeatable credit
7. [GIS 6103](#) – 20065 – Change prerequisites

8. [GLY 6931](#) – 20609 – Change maximum repeatable credit
9. [GLY 6932](#) – 20608 – Change maximum repeatable credit
10. [PLP 6932](#) – 20547 – Change maximum repeatable credit
11. [VME 6140](#) – 20243 – Change course title from “Mucosal Immunology” to “VMS Graduate Journal Club: Mucosal Immunology” and change maximum repeatable credit

Course|Modify for request 20696

Info

Request: GMS 6846 - change from 2 to 3 credits

Description of request: This course was initially designed with a focus on meta-analysis but had not been offered for several years. When we resumed it in 2023, the new co-instructors decided to incorporate systematic review methods as these are essential for conducting meta-analyses. Additionally, systematic review is a robust analytic method on its own. To cover both methods thoroughly within a single semester, we require more class time each week due to the extensive hands-on instruction and in-class activities involved. In the prior offering (2 credit hours), we were only largely able to offer didactic instruction with only minimal practice, as the 2 credit hours did not allow for sufficient time for students to conduct their own review and meta-analysis, an important skill for graduate students to be able to do independently. Therefore, we propose increasing the course credit from 2 to 3 hours.

Submitter: Matthew Mitterko mmitterko@aa.ufl.edu

Created: 11/6/2024 10:00:41 AM

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.).

* *

Response:

6

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:

846

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:

Systematic Review and Meta-Analysis in Clinical, Health Services Research and Public Health

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:

Spring

Effective Year

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

Response:

2025

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:
2

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:

This course was initially designed with a focus on meta-analysis but had not been offered for several years. When we resumed it in 2023, the new co-instructors decided to incorporate systematic review methods as these are essential for conducting meta-analyses. Additionally, systematic review is a robust analytic method on its own. To cover both methods thoroughly within a single semester, we require more class time each week due to the extensive hands-on instruction and in-class activities involved. In the prior offering (2 credit hours), we were only largely able to offer didactic instruction with only minimal practice, as the 2 credit hours did not allow for sufficient time for students to conduct their own review and meta-analysis, an important skill for graduate students to be able to do independently. Therefore, we propose increasing the course credit from 2 to 3 hours.

Systematic Review & Meta Analysis

GMS 6846

Day/Times

Location

Professors:

Megan Gregory, PhD

Associate Professor, Department of Health Outcomes and Biomedical Informatics
College of Medicine
Malachowsky Hall 7017
megan.gregory@ufl.edu
Office hours by appointment

Easton Wollney, PhD

Research Assistant Professor, Department of Health Outcomes and Biomedical Informatics
College of Medicine
Malachowsky Hall 7109
eastonwollney@ufl.edu
Office hours by appointment

COURSE OVERVIEW

In this course, we will examine and practice the science and rigorous methodology of conducting a systematic review and meta-analysis, using the PRISMA guidelines. Systematic reviews and meta-analyses are considered to be among the highest levels of evidence quality and are important studies in their own right. Each of you will finish the course 1) as a critical **consumer** of systematic reviews and meta-analyses; and 2) equipped with the skills and experience necessary to **produce** your own systematic review and meta-analysis. The final product of the course will be your own systematic review and meta-analysis.

COURSE GOALS

The course has two overlapping goals. For the first part, we will work on coming up with a research question, defining inclusion/exclusion criteria, conducting a systematic literature search, and coding the data. The second part of the course will involve learning different ways of synthesizing the data to conduct a systematic review or meta-analysis. These goals will be accomplished through reading chapters of the textbooks and reading and critiquing published systematic reviews and meta-analyses. The course will be very hands-on, resulting in you being able to develop your own systematic review and meta-analysis.

ASSIGNMENTS AND WEIGHTING

Readings Discussion: 15% of final grade

Each week you will have class readings (chapters, papers, or published reviews/metasearches). We will discuss these in class, so we expect you to come to class having read these. In preparing for these discussions, be prepared to speak to three things: *what you learned*, *what surprised you*, and *what questions you still have*.

Worked Example: 35% of final grade

As part of the course, we will have in-class worked examples of the steps to conducting a systematic review and meta-analysis. You should bring a laptop to class each week to participate. You will follow along on your own computer and submit your work on Canvas each week, which you will be graded on.

Critique Presentations and Peer Review Write Up: 20% of final grade

Each of you will need to choose a “systematic review and meta-analysis” (i.e., one paper that presents both) to read, critique, and present to the class. You will do a presentation in class and submit a copy of the presentation via Canvas. You will also write up your peer review and submit it via Canvas.

Final Paper: 30% of final grade

As the final product of the class, each of you will write your own protocol for a systematic review, according to the structure on PROSPERO, and conduct your own systematic review and meta-analysis. We will share more specific details about the grading when the assignment is explained in class.

GRADING SCALE

A 93-100%

A- 90-92%

B+ 87-89%

B 83-86%

B- 80-82%

C+ 77-79%

C 73-76%

C- 70-72%

D+ 67-69%

D 63-66%

D- 60-62%

Failure 0-59%

CLASS STRUCTURE

Generally, we will start each class period with a discussion of the assigned readings. Each week we will also engage in some sort of practical activity for our in-class worked example or work on our systematic review and meta-analysis. We've outlined the readings, activities, and tasks for each week below. However, the activities on the course schedule are subject to change as needed given the direction of the class.

COURSE MATERIALS

There are three books for our class readings:

Gough, Oliver & Thomas (2017). *An Introduction to Systematic Reviews, 2nd Edition*. London: Sage. This is abbreviated on the course schedule as "ISR."

Borenstein, Hedges, Higgins, & Rothstein (2021). *Introduction to meta-analysis* (2nd ed). Hoboken, NJ: Wiley. This is abbreviated on the course schedule as "IMA."

(Optional) Boland, Cherry and Dickson, Editors. (2017). *Doing a Systematic Review: A Student's Guide*. London: Sage. This is abbreviated on the course schedule as "DSR." As this is an optional text, all assignments for it in the course schedule are bracketed.

There will also be some additional readings posted on the course Canvas site.

OTHER INFORMATION

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/UGRD/academic-regulations/attendance-policies/>

This course is in person with limited support for virtual and hybrid options. Occasional exceptions may be made on a case-by-case basis in consultation with the instructors. Please contact the instructors at least one business day in advance of class (unless an emergency) if you have an extenuating circumstance that prohibits you from being able to attend class in person on a given date.

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.

Course Evaluations

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Diversity and Inclusivity

We consider this classroom to be a place where you will be treated with respect, and we welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

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 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 instructors.

In-Class Recording Policy

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.

Other Course Readings

Bylund CL, Vasquez T, Peterson EB, Ansell M, Bylund KC, Ditton-Phare P, Hines A, Manna R, Singh Ospina N, Wells R, Rosenbaum ME. Effect of experiential communication skills education on graduate medical education trainees' communication behaviors: a systematic review. *Acad Med*. 2022 Dec 1;97(12):1854-1866.

Durand MA, Carpenter L, Dolan H, Bravo P, Mann M, Bunn F, Elwyn G. Do interventions designed to support shared decision-making reduce health inequalities? A systematic review and meta-analysis. *PLoS ONE*. 2014 Apr;9(4):e94670.

Page MJ et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *PLoS Med*. 2021 Mar 29;18(3):e1003583.

Peterson EB, Ostroff JS, DuHamel KN, D'Agostino TA, Hernandez M, Canzona MR, Bylund CL. Impact of provider-patient communication on cancer screening adherence: A systematic review. *Prev Med*. 2016 Dec;93:96-105.

Shen MJ, Peterson EB, Costas-Muñiz R, Hernandez MH, Jewell ST, Matsoukas K, Bylund CL. The effects of race and racial concordance on patient-physician communication: a systematic review of the literature. *J Racial Ethn Health Disparities*. 2018 Feb;5(1):117-140.

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OPTIONAL:

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Course|Modify for request 20694

Info

Request: PHC 6149 Public Health Leadership - Change credit hours and course description

Description of request: Request to modify course PHC6149 Public Health Leadership.

Submitter: April Oneal apriloneal3@ufl.edu

Created: 11/5/2024 1:13:43 PM

Form version: 1

Responses

Current Prefix

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

Response:

PHC

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

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:

149

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:

Public Health Leadership

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:
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:
1

Proposed Credit Hours

Response:
2

Change Variable Credit?

Response:
Yes

Current Min and Max Credits

Response:
1

Proposed Min and Max Credits

Response:
1 or 2

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:

This graduate course focuses on leadership and management within the Public Health field. Through completion of this course, students acquire knowledge and skills to grow as a public health professional, build collaborative professional relationships, work effectively as a team member, and lead public health efforts.

Proposed Course Description (500 characters max)

Response:

This graduate course focuses on leadership and management within the Public Health field. Students acquire knowledge of management and leadership skills to grow as a public health professional, build collaborative professional relationships, develop strategies, and lead public health efforts as a team member and future leader.

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 MPH is changing its curriculum. Along with this is increasing the content and course objectives covered in this increase. However, the curriculum change will only affect students entering the program in Fall 2025 or later. Current MPH students will still require the 1-credit version of this course.

For that reason, we need for the course to be allowed as a variable 1- or 2-credit course.

University of Florida
College of Public Health and Health Professions
PHC 6149 – Public Health Leadership (2 credits)
Class Meeting Information: Online Asynchronous
Fall 2025

Instructor: Julia R. Varnes, PhD, MPH, MCHES

Office: HPNP 4331

Office Hours: Wednesdays, 10:30am-11:30am; Thursdays, 10am-11am; Other by appt.

Virtual Office: [Zoom link will be here]

Use this Zoom link when visiting my virtual office hours, or for any appointments we make.

Phone: 352-294-5382

Email: jrvarnes@ufl.edu

Preferred Course Communication: Email

Teaching assistants: None

Pre-requisites or Co-requisite: PHC 6600, Foundations of Public Health

I. Course Overview

This graduate course focuses on leadership and management within the Public Health field. Students acquire knowledge of management and leadership skills to grow as a public health professional, build collaborative professional relationships, develop strategies and lead public health efforts as a team member and future leader.

Relation to Program Outcomes

This course is associated with the following MPH core competencies as outlined by the Council on Education for Public Health (CEPH) Core :

- CEPH D2-2.10. Explain basic principles and tools of budget and resource management.
- CEPH D2-13. Propose strategies to identify relevant communities and individuals and build coalitions and partnerships for influencing health outcomes.
- CEPH D2-2.16. Apply leadership and/or management principles to address a relevant health issue.
- CEPH D2-2.17. Apply negotiation and mediation skills to address organizational or community challenges.

Course Objectives

1. Explain how various leadership styles/approaches influence problem solving, decision making, and system functioning in public health.
2. Describe emerging leadership, public health, and healthcare trends.

3. Identify resource management strategies appropriate for specified public health or health care scenarios.
4. Demonstrate use of ethical principles in public health decision making.
5. Propose setting-specific strategies to build partnerships in influencing public health outcomes.
6. Develop a plan to effectively convey information to key public health partners.
7. Apply leadership principles to support an organizational or community mission to address a public health issue.
8. Apply basic negotiation and conflict management skills when addressing an organization or community health challenge.
9. Examine existing healthcare structures and how they undermine health and create challenges to achieving health equity.
10. Integrate perspectives from other sectors and/or professions to promote and advance population health.

What is expected of you?

You are expected to actively engage in the course throughout the semester. Prior to completing module assignments and discussions, you are expected to fully prepare for participation by completing all module preparatory work. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you do not complete the assigned preparatory work, you may struggle to keep pace with (or meet expectations of) the activities in this course, and it is unlikely that you will reach the higher learning goals of the course. Your thoughtful participation and engagement fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

II. DESCRIPTION OF COURSE CONTENT

Please see the last page of this syllabus for the **topical course schedule** and **content outline**.

Course Materials & Technology

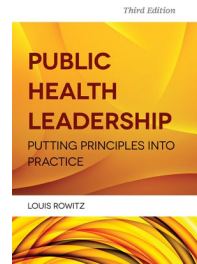
This asynchronous course will use the Canvas LMS. If you experience technical difficulties, please contact the UF Help Desk (helpdesk@ufl.edu; 352-392-HELP – select option 2).

UF Internet (eduroam) is available at thousands of locations worldwide!

[UF students can access eduroam](#) (highspeed WiFi) for free with their GatorLink log-in credentials. The eduroam network is fast and secure and has more than 10,000 wi-fi hotspots in 106 countries and territories worldwide. Many of these locations are in open spaces and/or large communal rooms, so you can get online while physically distancing and following CDC guidelines in an air-conditioned space. Access is available in rural areas, too! [Here's a link to all the eduroam sites](#).

Required

- Rowitz, L. (2014). *Public health leadership: Putting principles into practice* (3rd edition). Jones & Bartlett. ISBN: 978-1-284-02173-8. (E-book available in the UF library)
- Shi & Singh (2021). *Delivering Health Care in America: A Systems Approach*. Jones & Bartlett Learning; 8th edition. ISBN-10: 9781284224610 (E-book available in the UF library)
- Harvard Business Review Coursepack. (The link will be posted on announcement.)
- Additional readings posted to Canvas.



Recommended (Optional)

- Morgan, J. (2020.) *The future leader: 9 skills and mindsets to succeed in the next decade*. John Wiley & Sons, Inc.

Additional Academic Resources

- [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](#): Broward 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](#)
Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage for more information](#).

Description of Course Assignments

Syllabus Quiz (0 pt): You must complete and pass the syllabus quiz prior to accessing the remaining content. Although the syllabus quiz shows as 1 point on Canvas, this 1 point does not count toward your overall grade.

Peer Introductions (2 pts): Associated with Module 1. The purpose of this activity is to provide space for you to introduce yourself to your peers (And learn about them!). On this discussion board, you will share your prior or current management/leadership experiences and future associated goals.

The Leadership Toolkit Discussion Board (6 pts): Throughout this course, you will begin development of your own *Leadership Toolkit*. This assignment is designed to allow you to share your identified resources with your peers, and identify additional resources for your own toolkit. You are required to contribute a minimum of three times (before three separate deadlines).

Case Studies (22 points)

Throughout the semester, you will complete three case studies. Although these case studies are associated with a specific module, you are expected to use what you learned in prior modules so to demonstrate your synthesis of the materials.

1. **Module 6: Resource Management (7 pts).** In this scenario, students first act as the new director of one of a community health agency, a healthcare system, or a local government organization (i.e., Department of Health) where they have been directed to establish fiscal control procedures that were otherwise lacking. First, you will identify at least three health issues in the community from your assigned role's perspective via using the information provided and publicly available data to brainstorm ideas for potential solutions. [3 pts]
Next, you will be provided with some alternatives that were considered in the situation and the action that was actually taken. You will discuss your thoughts (using specific prompts) on this information. [2 pts].
Lastly, as the new director, you will develop strategies that can leverage current resources and policies to solve existing issues or prevent potential issues. At this stage, you also consider stakeholders who would be involved in the strategies. (2pts)
2. **Module 9 Group Case Study & Role Play: Community Negotiation (7 pts).** For this role play activity, students will practice learned negotiation techniques to address a major community health problem. Roles (in the form or title and affiliation) will be assigned by the instructor. Each student should research their role prior to participating in the activity. This is a small group activity. Options for completing this assignment include:
 - a. **Live Virtual Role Play (record and submit):** Schedule a time to meet virtually and record your 'live' role play interaction. If you opt for this modality, you need to 1) review the instructions ahead of time; 2) schedule a time to meet; 3) meet at your scheduled time; 4) hit record and play your part! After the role play, you will continue recording while you reflect on the negotiation strategies used during your interaction. One person from each group will upload the recording to the Canvas assignment. No follow-up activity is necessary.
 - b. **Discussion Board Role Play:** Complete the assignment with your group using the discussion board prompts. Be sure to meet the posting deadlines and requirements as outlined in the assignment. [5 pts] Upon completion of the discussion board, write a reflection on the activity that identifies specific tactics that were used and/or tactics that could have been used. [2 pts]

Please note that one of your module activities is a discussion that allows you to communicate with your instructor and class peers on your preferences for completing this activity. Check Canvas for details.

3. **Module 10: Building Partnerships (8 pts).** Students are provided with a scenario outlining a health issue (e.g., lack of primary care in a low-income neighborhood in Gainesville, FL.). The student must 1) identify key partners to include in addressing the issue; 2) denote why those key partners were selected; and 3) create a plan to foster collaboration amongst those partners.

[6 pts] Students will also review peers' scenarios and plans to provide constructive feedback. [2 pts]

Module Readiness Quizzes (8 pts): Each week, students will take a short quiz that covers all content from the preparatory work for that module (i.e., readings, lectures/videos, supplemental materials). Quizzes include questions that cover all content presented in the associated modules (i.e., readings, lectures/videos, and supplemental materials). While the quizzes are not formally proctored and thus can be considered open book, they are timed. You will not have time to look up every concept covered on the quiz. Therefore, you should complete all learning activities from each module before taking the quiz. The quiz will offer feedback based on your answers and you will have **two opportunities to take each quiz**. The questions are randomly selected from a pool of potential items, so it is unlikely that you will get the exact same questions twice. **There are 10 quizzes worth 1 point each; the two lowest quiz grades will be dropped.** Quizzes cannot be made up.

Module Assignments/Discussions (31 pts): All students are expected to make informed contributions through class activities. To do this, students will need to prepare appropriately by viewing all assigned video presentations, completing weekly readings, and then discussing content with their peers. There are five module assignments/discussions valued at 5-points each; and one valued at 7-points each. Details for each discussion are posted on Canvas along with rubrics. In summary, the assignments are as follows:

- Module 1 Assignment: Reflecting on Leadership (5 pts)
- Module 2 Small Group Discussion: Shared Values (5 pts)
- Module 3 Video & Discussion: Elevator Speech (6 pts)
- Module 4 Assignment: The Leader's Role in Health Equity (5 pts)
- Module 8 Discussion: Traditional & Crisis Leadership (5 pts) Module 9 Assignment & Discussion: Strategic thinking in community engagement (5 pts)

Exams (30 pts): There are two exams in this course: a mid-term and a final. Each exam is valued at 15 points each and both are completed online (via Canvas) and are proctored through HonorLock. Check the course outline for timing of exams.

Overview of Assignments & Deadlines

ASSIGNMENTS*	POINTS
Course Content Based Assignments	
1. Syllabus Quiz (must pass)	0
2. Peer Introductions	2
3. Leadership Toolkit Resources (three posts)	6
4. Case Studies (three for 7-8 points each)	22
5. Quizzes (11 at 1 point each; two dropped)	9
6. Module Assignments (five at 5 points each; one for 6 points)	31
7. Exams (two at 15 points each)	30
Total	100

*Due dates are outlined on that last page of this syllabus, within the content outline.

Grading Scale

Percent Earned	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	.67	0

Please be aware grades of C- (or below) is not acceptable for graduate students. Graduate students' GPA must be at least 3.0 in all graduate courses (≥ 5000 level). A grade of C will count toward the graduate degree only there are sufficient credits in graduate courses been earned with a B+ or higher.

Information on current UF grading policies can be found at:

<https://catalog.ufl.edu/graduate/regulations/>

Exam Policy, including Make-up Exams

Students complete all exams via Canvas. While the exams are not formally proctored and thus can be considered open book, they are timed. You will not have time to look up every concept covered on the exam. Therefore, you should study thoroughly before taking the exams. You are encouraged to use the module objectives as a guide for studying for the exams.

Exams may not be made up after the fact except under extremely extenuating circumstances (e.g., unexpected hospitalization during the exam period) and with evidence to support the circumstances.

Policy Related to Assignments, Make-Up Exams, and Other Work

Review assignment descriptions carefully in the course syllabus and in Canvas. Students are expected to do their best work and to turn in work on time. Some "deadlines" are self-imposed and will be determined by the specific assignment.

- Assignments are to be submitted via Canvas.
- Unless otherwise noted, assignments are due at 11:57pm on the date indicated. A grace period is allowed until 1:00am with no grade penalty; assignments submitted at 1:01am or later will be counted as late.
- *Late submitted assignments are subject to a 10% deduction in grade for every day it is late.* Please note that, for assignments submitted after the grace period, late deductions are marked from the original deadline (11:57pm).
- Please make efforts to turn assignments in early. **Make back-up copies of all your work**, as some assignments may not be returned and Canvas access may expire after the semester ends. All written work must be typed, unless otherwise indicated.
- I do recognize that personal circumstances arise (life happens) that may interfere with your ability to meet a deadline. If these unanticipated events do occur, please let me know as soon as possible, and I will be happy to extend deadlines for you. I will not be receptive to retrospective requests for extensions without a compelling rationale for why these

requests are being made.

III. STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

To ensure that we have a great semester, remember –

All transactions and relationships are enriched by courtesy:

Be considerate of one another during group work. All ideas have merit.

Be considerate of your classmates and the professor during class meetings by being attentive, power-off technology, and be prepared to fully participate in each class.

Expectations & Classroom Ground Rules:

- Complete all work as assigned.
- Take responsibility for the quality of the learning experience.
- Build on one another's comments/ideas; seek to understand others' perspectives.
- Respectfully provide and receive specific, solution-oriented feedback.
- Communicate with your instructor.

Academic & Personal Integrity: I expect and assume that you will be honest with me in all aspects of your conduct regarding our course. In return, I will do the same with you. By formally registering for coursework at the University of Florida, you 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 honesty and integrity by abiding by the Honor Code."

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."*

[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. Violations of the Honor Code will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

Attendance: Be aware that online learning can present significant challenges, particularly to those who are not 'self-starters' or those who do not possess good time management skills. The online classroom is available to you 24 hours a day, 7 days a week. Unlike traditional instructional settings in which each student gets the same class, the online setting means that every student will participate in the course that he/she chooses to experience. In theory, this type of instruction should be more adaptable to a variety of learning styles. The reality is, however, that some students seem unwilling (we believe all are able) to create and actively participate in their own virtual classroom. This often results in procrastination and low-quality performance. Recognizing that everyone learns differently, I will not prescribe the 'best way' to approach the course. You should note, however, that this course is not self-paced. You are expected to adhere to the class calendar and timeline I have developed for you (see Course Schedule below). I do recognize that personal circumstances arise (life happens) that may

interfere with your ability to meet a deadline. If these unanticipated events do occur, please let me know as soon as possible. I will not be receptive to retrospective requests for extensions without a compelling rationale for why these requests are being made.

Course Evaluations: I value your professional and respectful feedback on the quality of instruction in this course. Please complete the evaluation for this course via the Canvas 'GatorEvals' tab or through <https://ufl.bluera.com/ufl/>. You will be notified when the evaluation period opens. UF provides [guidance on how to give feedback in a professional and respectful manner](#). You can also view [public summaries of course and instructor evaluation results](#).

Netiquette, Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. I expect that students will show respect to their peers and instructor in all online communications. I will not tolerate improper language and disparaging comments; these actions will result in disciplinary action. See the following link for information on behaviors that are expected when students communicate with their peers and instructors using all available online communication features:

<http://teach.ufl.edu/wpcontent/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>.

Title IX: University of Florida has zero tolerance for sexual discrimination, harassment, assault/battery, dating violence, domestic violence, or stalking. Students are encouraged to report any experienced or witnessed occurrences to law enforcement and/or one of UF's Title IX Coordinators. Students can [report incidents](#) or learn more about their [rights and options](#) here. Or contact Student Conduct and Conflict Resolution at 202 Peabody Hall, 352-392-1261.

IV. SUPPORT SERVICES

Accommodating Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, it requires that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability (or different-ability) that affects your learning, please reach out to the [Disabilities Resource Center \(DRC\)](#). And then share your accommodation letter with your instructor as quickly as possible to ensure you have access for the full semester.

If you did not register formally, but you know you have different learning, behavioral, or other need that might affect your performance in the course, tell me and I will help you.

Counseling & 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.

- [Umatter, We Care](#)
Available for students who are experiencing personal life disruptions that may affect their academics. Umatter can help you identify resources and communicate with instructors on your behalf. 352-294-CARE (2273), umatter@ufl.edu
- [Counseling and Wellness Center](#)
Individual counseling, group counseling, and online resources are available to UF students at no charge. Visit the website or call 352-392-1575. If you are having a crisis, you can call anytime and request to speak to the counselor on call.
- [GatorWell Health Promotion services](#)
GatorWell provides health-related resources, information, and individual services to students. Recommended services: Wellness Coaching for Academic Success (virtual appointments available).
- [Student Health Care Center](#): Call 352-392-1161 for 24/7 information to help you find the care you need.
- [UF Police Department](#): Visit or call 352-392-1111 (or 9-1-1 for emergencies).
- [UF Health Emergency Room and Trauma Center](#): *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
- [Dean of Students Office](#)
Do you need help resolving a conflict or would you like access to the student code of conduct? Visit the UF Dean of Students website for more information.
- [Alachua County Crisis Center](#)
Visit the website or call the hotline – 352-264-6789
- [Meridian Behavioral Healthcare](#), 352-374-5600

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


V. Tentative Course Outline (additional guidance to be provided on the Weekly Module pages of Canvas)

Date	Week/Module	Module Title	Module Readings & Preparatory Work	Assignment
Week 1	Module 1	Introduction & Overview Leadership & Management in Public Health -Leadership styles -Management v. leadership -The future leader	<ul style="list-style-type: none"> Read “Start Here” Section, Syllabus 	Discussion: Peer Introduction
Week 2			<ul style="list-style-type: none"> Module 1 video lectures Rowitz (Book 18 pages), <ul style="list-style-type: none"> Ch 1, The Basics of Leadership Ch 2. Leadership Styles & Practices Ch 3. Interface between management & leadership Univ. of Eastern Finland. 2023. How AI alters middle managers work. Miranda, D. 2023. 10 management styles of effective leaders Price-Dowd, C. 2020. Your leadership style: Why understanding yourself matters. BMJ Leader. 	M1 Assignment: Reflecting on Leadership Module 1 readiness quiz
Week 3	Module 2	Leadership & Systems Change -Systems & complexity -Leading across different sectors -Systems approach to organizational change	<ul style="list-style-type: none"> Module 2 video lectures Rowitz (Book, 40 pages) <ul style="list-style-type: none"> Ch 4, A Systems & Complexity Perspective Ch 5, The Leadership Wheel & Organizational Change Carson Ch 14. 2022 Population health improvement: A systems approach. In Population health, epidemiology, and public health: Management skills for creating healthy communities. [Available on Canvas] 	
Week 4			M2 Small Group Discussion: Shared Values Module 2 readiness quiz	

Week 5	Module 3	Application of Public Health Leadership -Building infrastructure -Leadership & assurance	<ul style="list-style-type: none"> • Module 3 video lectures • Rowitz (Book, 16 pages) <ul style="list-style-type: none"> ○ Ch 7, Building Infrastructure ○ Ch 13: Leadership & Assurance • Gerding et al. (2020). Identifying needs for advancing the profession and workforce in environmental health. <i>American Journal of Public Health</i>, 110: 288-294. 	M3 Video & Discussion: Elevator Speech Module 3 readiness quiz
Week 6	Module 4	Application of Leadership & the Health Care System -Health care access & quality of care -Building the healthcare workforce	<ul style="list-style-type: none"> • Module 4 video lectures • Shi & Singh, Chapter 12: Cost, Access, & Quality • Sanghavi et al., 2021. Association of Low-value care exposure with health care experience ratings among patient panels? <i>JAMA</i> • Andersen. 1995. Revisiting the Behavioral Model and Access to Medical Care: Does it Matter? • Gawande A. Jan 24, 2011. The Hot Spotters. <i>The New Yorker</i> • Video: Frontline “Doctor Hotspot”. PBS https://www.youtube.com/watch?v=0DiwTjeF5AU • Ibrahim et al. (2022). Inequities in quality perinatal care in the United States during pregnancy and birth after cesarean. <i>PLOS ONE</i> 17(9): e0274790. 	M4 Discussion: The Leader’s Role in Health Equity Module 4 readiness quiz
Week 7	Module 5	Applications of Leadership & Environmental Health -prevention via different agencies	<ul style="list-style-type: none"> • Module 5 video lectures • Lemery et al. (2020). Training clinical and public health leaders in climate and health. <i>Health Affairs</i>, 39(12). Doi: 10.1377/hlthaff.2020.01186 	Module 5 readiness quiz
Week 8		EXAM 1		

Week 9	Module 6	Health Technology & Policy	<ul style="list-style-type: none"> • Module 6 video lectures • Shi & Singh, Chapter 5: Medical Technology • Rossi et al. Cost-effectiveness of Artificial Intelligence as a Decision-Support System Applied to the Detection and Grading of Melanoma, Dental Caries, and Diabetic Retinopathy. JAMA network open. 2022 Mar 1;5(3):e220269. • Char DS et al. Implementing machine learning in health care—addressing ethical challenges. The New England journal of medicine. 2018 Mar 15;378(11):981. • Park et al. 2020. Information technology based tracing strategy in response to COVID-19 in South Korea – privacy controversies. JAMA 	Module 6 readiness quiz
Week 10	Module 7	Resource Management -Human resources & people development	<ul style="list-style-type: none"> • Module 7a video lectures • Rowitz (Book, 36 pages) <ul style="list-style-type: none"> ○ Ch 19, Leadership and People Development ○ Ch 25: Mentoring, Coaching, and Training in Public Health 	
Week 11		-Financial and other resource management	<ul style="list-style-type: none"> • Module 7b video lectures • Johnson & Breckon. 2012. In Managing Health education & promotion Programs: Leadership skills for the 21st century [Available on Canvas] <ul style="list-style-type: none"> ○ Ch 15. Budgeting ○ Ch. 16 Fiscal control & accountability 	Resource Management Case Study Module 7 readiness quiz



<p>Week 12</p>	<p>Module 8</p>	<p>Leadership & Preparedness -The crisis cycle -Public health preparedness & response</p> 	<ul style="list-style-type: none"> • Module 8 video lectures • Rowitz (Book, 43 pages) <ul style="list-style-type: none"> ○ Ch 15, Traditional & Crisis Public Health Leaders ○ Ch 17, Public Health Preparedness & Response • Next Gen PHEP • Safapour et al. 2021. Post-disaster recovery in urban and rural communities: Challenges and strategies. <i>International Journal of Disaster Risk Reduction</i>. Doi: 10.1016/j.ijdrr.2021.102535 • Penta et al. 2021. A disaster by any other name? COVID-19 and support for an All-Hazards approach. <i>Risks Hazards Crisis Public Policy</i> 	<p>M8 Discussion: Traditional & Crisis Leadership</p> <p>Module 8 readiness quiz</p>
<p>Week 13</p>	<p>Module 9</p>	<p>Leadership & the Planning Process</p>	<ul style="list-style-type: none"> • Module 9 video lectures • Rowitz (Book, 14 pages) <ul style="list-style-type: none"> ○ Ch. 20, Leadership & the Planning Process • Strategic Planning Should Be a Strategic Exercise.” By Graham Kenny, Oct 04, 2022, Harvard Business Review. 	<p>Module 9 readiness quiz</p> <p>Module 9 Assignment: Strategic thinking for community engagement</p>
<p>Week 14</p>	<p>Module 10</p>	<p>Leadership and Decision Making -Decision making -Conflict resolution</p>	<ul style="list-style-type: none"> • Module 10 video lectures • Rowitz Book <ul style="list-style-type: none"> ○ Ch 21, Leadership and Decision Making • “A Leader's Framework for Decision Making.” by David J. Snowden and Mary E. Boone. Nov, 2007. Harvard Business Review. (10pages) 	<p>Community Negotiation Case Study</p> <p>Module 10 readiness quiz</p>
<p>Week 15</p>	<p>Module 11</p>	<p>Building Partnership and Leading Change</p>	<ul style="list-style-type: none"> • Module 11 video lectures • Rowitz (Book) <ul style="list-style-type: none"> ○ Chapter 16, The Social Capital Perspective ○ Chapter 24, Leadership and Change 	<p>Case Study: Building Partnerships</p> <p>Module 11 readiness quiz</p>

			<ul style="list-style-type: none">Agency for Healthcare Research Quality, 2012. Communication and dissemination strategies to facilitate use of health and healthcare evidence. <i>AHRQ</i>	
FE Week		Exam 2		



University of Florida
College of Public Health and Health Professions
PHC 6149 – Public Health Leadership (1 credit)
Class Meeting Information: Online Asynchronous
Fall 2025

Instructor: Julia R. Varnes, PhD, MPH, MCHES

Office: HPNP 4331

Office Hours: Wednesdays, 10:30am-11:30am; Thursdays, 10am-11am; Other by appt.

Virtual Office: [Zoom link will be here]

Use this Zoom link when visiting my virtual office hours, or for any appointments we make.

Phone: 352-294-5382

Email: jrvarnes@ufl.edu

Preferred Course Communication: Email

Teaching assistants: None

Pre-requisites: Permission of the MPH Program

I. Course Overview

This graduate course focuses on leadership and management within the Public Health field. Students acquire knowledge of management and leadership skills to grow as a public health professional, build collaborative professional relationships, develop strategies and lead public health efforts as a team member and future leader.

Relation to Program Outcomes

This course is associated with the following MPH core competencies as outlined by the Council on Education for Public Health (CEPH) Core :

- CEPH D2-2.10. Explain basic principles and tools of budget and resource management.
- CEPH D2-2.16. Apply leadership and/or management principles to address a relevant health issue.
- CEPH D2-2.17. Apply negotiation and mediation skills to address organizational or community challenges.

Course Objectives

1. Explain how various leadership styles/approaches influence problem solving, decision making, and system functioning in public health.
2. Identify personal professional growth needs.
3. Identify resource management strategies appropriate for specified public health or health care scenarios.
4. Demonstrate use of ethical principles in public health decision making.

5. Demonstrate professionalism in communication and conduct.
6. Apply leadership principles to address a public health issue.
7. Apply basic negotiation and conflict management skills when addressing an organization or community health challenge.

What is expected of you?

You are expected to actively engage in the course throughout the semester. Prior to completing module assignments and discussions, you are expected to fully prepare for participation by completing all module preparatory work. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you do not complete the assigned preparatory work, you may struggle to keep pace with (or meet expectations of) the activities in this course, and it is unlikely that you will reach the higher learning goals of the course. Your thoughtful participation and engagement fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

II. DESCRIPTION OF COURSE CONTENT

Please see the last page of this syllabus for the **topical course schedule** and **content outline**.

Course Materials & Technology

This asynchronous course will use the Canvas LMS. If you experience technical difficulties, please contact the UF Help Desk (learning-support@ufl.edu; 352-392-HELP – select option 2).

UF Internet (eduroam) is available at thousands of locations worldwide!

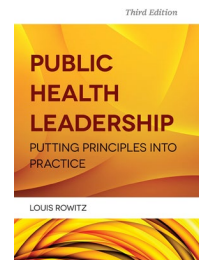
[UF students can access eduroam](#) (highspeed WiFi) for free with their GatorLink log-in credentials. The eduroam network is fast and secure and has more than 10,000 wi-fi hotspots in 106 countries and territories worldwide. Many of these locations are in open spaces and/or large communal rooms, so you can get online while physically distancing and following CDC guidelines in an air-conditioned space. Access is available in rural areas, too! [Here's a link to all the eduroam sites.](#)

Required

- Rowitz, L. (2014). *Public health leadership: Putting principles into practice* (3rd edition). Jones & Bartlett. ISBN: 978-1-284-02173-8. (Available in multiple formats)

Recommended (Optional)

- Morgan, J. (2020.) *The future leader: 9 skills and mindsets to succeed in the next decade*. John Wiley & Sons, Inc.



Additional Academic Resources

- [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](#): Broward 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](#)
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage for more information.](#)

Description of Course Assignments

Syllabus Quiz (1 pt): You must complete and pass (1/1) the syllabus quiz prior to accessing the remaining content.

Peer Introductions (5 pts): Associated with Module 1. The purpose of this activity is to provide space for you to introduce yourself to your peers (And learn about them!). On this discussion board, you will share your prior or current management/leadership experiences and future associated goals.

Leadership Journal (22 pts): At four different time points, students will use provided prompts to write a journal entry specific to the course content. Each entry is valued at 5 points. The journal entries will cover the topic of *Course Expectations, Leadership Styles, Team Building, and Building Trust*. Specific details are provided on each Canvas assignment.

The Leadership Toolkit Discussion Board (6 pts): Throughout this course, you will begin development of your own *Leadership Toolkit*. This assignment is designed to allow you to share your identified resources with your peers, and identify additional resources for your own toolkit. You are required to contribute a minimum of three times (before three separate deadlines).

Group organizing discussion (1 pt): This assignment allows you to communicate with your class member on your preferences for completing the Community Negotiation Role Play activity. Check Canvas for details.

Group Work: Community Negotiation Case Study & Role Play (10 pts): For this role play activity, students will practice learned negotiation techniques to address a major community health problem. Roles (in the form or title and affiliation) will be assigned by the instructor.

Each student should research their role prior to participating in the activity. This is a small group activity. Options for completing this assignment include:

1. **Live Virtual Role Play (record and submit):** Schedule a time to meet virtually and record your 'live' role play interaction. If you opt for this modality, you need to 1) review the instructions ahead of time; 2) schedule a time to meet; 3) meet at your scheduled time; 4) hit record and play your part! After the role play, you will continue recording while you reflect on the negotiation strategies used during your interaction. One person from each group will upload the recording to the Canvas assignment. No follow-up activity is necessary.
2. **Discussion Board Role Play:** Complete the assignment with your group using the discussion board prompts [6 pts]. Be sure to meet the posting deadlines and requirements as outlined in the assignment. Upon completion of the discussion board, write a reflection on the activity that identifies specific tactics that were used and/or tactics that could have been used [4 pts].

Quizzes (30 pts): There are three quizzes in this course. Quiz 1 covers content from Modules 1, 2, & 3. Quiz 2 covers content from Module 4 & 5. Quiz 3 covers content from Modules 6, 7, & 8. Quizzes include questions that cover all content presented in the denoted modules (i.e., readings, lectures/videos, and supplemental materials). While the quizzes are not formally proctored and thus can be considered open book, they are timed. You will not have time to look up every concept covered on the quiz. Therefore, you should complete your readings and review of the lecture/video content from each module before taking the quiz. The quiz will offer feedback based on your answers and you will have two opportunities to take each quiz. However, questions are randomly selected from a pool of potential items, so it is unlikely that you will get the exact same questions twice. Each quiz is worth 10 points for a total of 33 points. Quizzes cannot be made up. However, at the end of the semester, all students will have the opportunity to take a:

Cumulative Make-Up Replacement Quiz, which can be used to replace single low scoring quiz (including a missed quiz).

ProSeries (4 pts): Five of your required MPH Professional Series (ProSeries) sessions are required as part of this course (2 pts each). You must have attended the live session or completed the alternative assignment to receive credit. If you have not yet completed all sessions, to receive full credit you must complete it by the deadlines listed below.

- Writing Systematic Reviews
- Presenting for Public Health Day
- Disability and Health

Other Module Activities (22 pts): All students are expected to make informed contributions through class activities. To do this, students will need to prepare appropriately by viewing all assigned video presentations, completing weekly readings, and completing other weekly activities. These points will come from the following activities:

- Module 2 Discussion: Shared Values (6 points)
- Module 4 Elevator Speech & Response: Advocacy to Build Infrastructure (10 points)
- Module 5 Discussion: Traditional & Crisis Leadership (6 points)

Overview of Assignments & Deadlines

ASSIGNMENTS	POINTS	DEADLINE
Course Content Based Assignments		Aug 29
1. Module Activities		Aug 29
a. Syllabus Quiz	1	Sep 8
b. Peer Introductions	5	Sep 22
c. Group Organizing discussion	1	Oct 13
d. Module 2 discussion	6	Oct 20
e. Module 4 Elevator Speech	10	Multiple deadlines
f. Module 5 discussion	6	Sep 8, Sep 15, Sep 29, Nov 10
g. Community Negotiation Case Study	10	Oct 10, Nov 3, Dec 4
2. Leadership Journal (four at 5-6 points each)	22	Oct 6, Oct 27, Dec 8
3. Leadership Toolkit Resources (three posts)	6	Dec 12
4. Quizzes (three at 10 points each)	30	Multiple Deadlines
5. ProSeries (three at 1 points each)	3	
Total	100	

Grading Scale

Percent Earned	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	.67	0

Please be aware grades of C- (or below) is not acceptable for graduate students. Graduate students' GPA must be at least 3.0 in all graduate courses (≥ 5000 level). A grade of C will count toward the graduate degree only there are sufficient credits in graduate courses been earned with a B+ or higher.

Information on current UF grading policies can be found at:

<https://catalog.ufl.edu/graduate/regulations/>

Exam Policy, including Make-up Exams

Students complete all exams via Canvas. While the exams are not formally proctored and thus can be considered open book, they are timed. You will not have time to look up every concept covered on the exam. Therefore, you should study thoroughly before taking the exams. You are encouraged to use the module objectives as a guide for studying for the exams.

Exams may not be made up after the fact except under extremely extenuating circumstances (e.g., unexpected hospitalization during the exam period) and with evidence to support the circumstances.

Policy Related to Assignments, Make-Up Exams, and Other Work

Review assignment descriptions carefully in the course syllabus and in Canvas. Students are expected to do their best work and to turn in work on time. Some “deadlines” are self-imposed and will be determined by the specific assignment.

- Assignments are to be submitted via Canvas.
- Unless otherwise noted, assignments are due at 11:57pm on the date indicated. A grace period is allowed until 1:00am with no grade penalty; assignments submitted at 1:01am or later will be counted as late.
- *Late submitted assignments are subject to a 10% deduction in grade for every day it is late.* Please note that, for assignments submitted after the grace period, late deductions are marked from the original deadline (11:57pm).
- Please make efforts to turn assignments in early. **Make back-up copies of all your work**, as some assignments may not be returned and Canvas access may expire after the semester ends. All written work must be typed, unless otherwise indicated.
- I do recognize that personal circumstances arise (life happens) that may interfere with your ability to meet a deadline. If these unanticipated events do occur, please let me know as soon as possible, and I will be happy to extend deadlines for you. I will not be receptive to retrospective requests for extensions without a compelling rationale for why these requests are being made.

III. STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

To ensure that we have a great semester, remember –

All transactions and relationships are enriched by courtesy:

Be considerate of one another during group work. All ideas have merit.

Be considerate of your classmates and the professor during class meetings by being attentive, power-off technology, and be prepared to fully participate in each class.

Expectations & Classroom Ground Rules:

- Complete all work as assigned.
- Take responsibility for the quality of the learning experience.
- Build on one another’s comments/ideas; seek to understand others’ perspectives.
- Respectfully provide and receive specific, solution-oriented feedback.
- Communicate with your instructor.

Academic & Personal Integrity: I expect and assume that you will be honest with me in all aspects of your conduct regarding our course. In return, I will do the same with you. By formally registering for coursework at the University of Florida, you 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 honesty and integrity by abiding by the Honor Code.”
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.”*

[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. Violations of the Honor Code will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

Attendance: Be aware that online learning can present significant challenges, particularly to those who are not ‘self-starters’ or those who do not possess good time management skills. The online classroom is available to you 24 hours a day, 7 days a week. Unlike traditional instructional settings in which each student gets the same class, the online setting means that every student will participate in the course that he/she chooses to experience. In theory, this type of instruction should be more adaptable to a variety of learning styles. The reality is, however, that some students seem unwilling (we believe all are able) to create and actively participate in their own virtual classroom. This often results in procrastination and low-quality performance. Recognizing that everyone learns differently, I will not prescribe the ‘best way’ to approach the course. You should note, however, that this course is not self-paced. You are expected to adhere to the class calendar and timeline I have developed for you (see Course Schedule below). I do recognize that personal circumstances arise (life happens) that may interfere with your ability to meet a deadline. If these unanticipated events do occur, please let me know as soon as possible. I will not be receptive to retrospective requests for extensions without a compelling rationale for why these requests are being made.

Course Evaluations: I value your professional and respectful feedback on the quality of instruction in this course. Please complete the evaluation for this course via the Canvas ‘GatorEvals’ tab or through <https://ufl.bluer.com/ufl/>. You will be notified when the evaluation period opens. UF provides [guidance on how to give feedback in a professional and respectful manner](#). You can also view [public summaries of course and instructor evaluation results](#).

Netiquette, Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. I expect that students will show respect to their peers and instructor in all online communications. I will not tolerate improper language and disparaging comments; these actions will result in disciplinary action. See the following link for information on behaviors that are expected when students communicate with their peers and instructors using all available online communication features:

<http://teach.ufl.edu/wpcontent/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>.

Title IX: University of Florida has zero tolerance for sexual discrimination, harassment, assault/battery, dating violence, domestic violence, or stalking. Students are encouraged to report any experienced or witnessed occurrences to law enforcement and/or one of UF’s Title IX Coordinators. Students can [report incidents](#) or learn more about their [rights and options](#) here. Or contact Student Conduct and Conflict Resolution at 202 Peabody Hall, 352-392-1261.

IV. SUPPORT SERVICES

Accommodating Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, it requires that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability (or different-ability) that affects your learning, please reach out to the [Disabilities Resource Center \(DRC\)](#). And then share your accommodation letter with your instructor as quickly as possible to ensure you have access for the full semester.

If you did not register formally, but you know you have different learning, behavioral, or other need that might affect your performance in the course, tell me and I will help you.

Counseling & 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.

- [Umatter, We Care](#)
Available for students who are experiencing personal life disruptions that may affect their academics. Umatter can help you identify resources and communicate with instructors on your behalf. 352-294-CARE (2273), umatter@ufl.edu
- [Counseling and Wellness Center](#)
Individual counseling, group counseling, and online resources are available to UF students at no charge. Visit the website or call 352-392-1575. If you are having a crisis, you can call anytime and request to speak to the counselor on call.
- [GatorWell Health Promotion services](#)
GatorWell provides health-related resources, information, and individual services to students. Recommended services: Wellness Coaching for Academic Success (virtual appointments available).
- [Student Health Care Center](#): Call 352-392-1161 for 24/7 information to help you find the care you need.
- [UF Police Department](#): Visit or call 352-392-1111 (or 9-1-1 for emergencies).
- [UF Health Emergency Room and Trauma Center](#): *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
- [Dean of Students Office](#)
Do you need help resolving a conflict or would you like access to the student code of conduct? Visit the UF Dean of Students website for more information.
- [Alachua County Crisis Center](#)
Visit the website or call the hotline – 352-264-6789
- [Meridian Behavioral Healthcare](#), 352-374-5600

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

V. Tentative Course Outline (additional guidance to be provided on the Weekly Module pages of Canvas)

Date	Week/Module	Module Title	Module Activities
Open: Aug 22 Due: Aug 29	Module 1	Introduction & Overview (Plus ProSeries Catch-up)	Read “Start Here” Section, Syllabus Review supplemental materials as assigned M1 Discussion: Peer Introduction
Open: Aug 22 Due: Sep 8			M1 Video Lectures Book Chapter 1, The Basics of Leadership Journal Exercise #1 – Expectations Discussion: Group Organizing ProSeries, Writing Systematic Reviews (from Fall 2023)
Open: After M1 complete Due: Sep 15	Module 2	Overview of Leadership Principles in Public Health	Book Chapter 2, Leadership Styles and Practices Chapter 3, Interface Between Management & Leadership M2 Video Lectures Journal Exercise #2: Leadership Styles & Practices
Open: After M1 complete Due: Sep 22			Chapter 4, A Systems & Complexity Perspective Chapter 5, The Leadership Wheel & Organizational Change Supplemental materials as assigned on Canvas M2 Small Group Discussion: Shared Values
Open: After M2 complete Due: Sep 29	Module 3	Personal & Professional Leadership	Book Chapter 6, The Five Levels of Leadership Supplemental materials as assigned on Canvas M3 Video Lectures M3 Discussion: Professional Goals Journal Exercise #3 Leadership Toolkit Discussion Board opens (multiple deadlines)
Open: Sep 30 Due: Oct 6	Quiz 1 due October 6		

<p>Open: After M3 Due: Oct 13</p>	<p>Module 4</p>	<p>Application of Leadership</p>	<p>Book Chapter 7, Building Infrastructure Book Chapter 8, The Changing Public Health System Book Chapter 11: Leadership and Policy Development Book Chapter 12: Public Health Law & Ethics Book Chapter 13: Leadership & Assurance Supplemental materials as assigned on Canvas M4 Video Lectures M4 Activity/Discussion: Elevator Speech & Response</p>
<p>Open: After M4 Due: Oct 20</p>	<p>Module 5</p>	<p>Leadership & Preparedness</p>	<p>Chapter 15, Traditional & Crisis Public Health Leaders Chapter 16, The Social Capital Perspective Chapter 17, Public Health Preparedness & Response Supplemental materials as assigned on Canvas M5 Video Lectures M5 Discussion: Traditional & Crisis Leadership</p>
<p>Open: Oct 21 Due: Oct 27</p>	<p><i>Quiz 2 due October 27</i></p>		
<p>Open: After M1 Due: Nov 3</p>	<p>Module 6</p>	<p>Leadership Skills Part 1: Communication</p>	<p>Book Chapter 18, Leadership & Communication Supplemental materials as assigned on Canvas M6a Video Lectures M6 Small Group Discussion: Scenarios on Trust & Concern ProSeries, Presenting for Public Health Day</p>
<p>Open: After M1 Due Nov 10</p>		<p>Leadership Skills Part 2: People Development</p>	<p>Book, Chapter 19, Leadership and People Development Book Chapter 25: Mentoring, Coaching, and Training in Public Health Supplemental materials as assigned on Canvas M6b Video Lectures <i>Journal Exercise #4: Building Trust</i> ProSeries, Disability & Health</p>
<p>Open: After M6 Multiple deadlines through Nov 22</p>	<p>Module 7</p>	<p>Leadership and Decision Making</p>	<p>Book Chapter 20, Leadership and the Planning Process Book Chapter 21, Leadership and Decision Making Supplemental materials as assigned on Canvas M7 Video Lectures Community Negotiation Case Study (Check Canvas for 3 deadlines)</p>

<p>Open: After M7 Due: Nov 26*</p>	<p>Module 8</p>	<p>Leadership, Collaboration, and Change</p>	<p>Book Chapter 22, Leadership & Community Engagement Book Chapter 24, Leadership and Change Supplemental materials as assigned on Canvas M8 Video Lectures ProSeries, Introduction to Mixed Methods</p>
<p>Opens: Dec 1* Due: Dec 8</p>	<p><i>Quiz 3 due December 8</i></p>		
<p>Dec 5-12</p>	<p><i>Optional Cumulative Make-Up Quiz</i></p>		

Course|New for request 20034

Info

Request: FAS 6XXXC Fish & Limnology

Description of request: New course number request for a graduate course with lab co-taught with FAS4305C Intro to Fishery Science

Submitter: Jennifer Vogel alpha32605@ufl.edu

Created: 10/23/2024 12:41:17 PM

Form version: 10

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:

FAS

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:

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 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:
Fish & Limnology

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:
Fish & Limnology

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 *<i>currently</i>* *<i>planned</i>* 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](http://aa.ufl.edu/media/aaufledu/policies/Co-listed-grad-ug-courses-policy.pdf).

Response:

Notable differences between the FAS4305C and proposed 6000 level course include:

1. Graduate students will write a longer and more in-depth grant proposal that addresses identified knowledge gaps, as opposed to a literature review;
2. Graduate students are required to complete an additional assignment (a graphical plain language summary) that supports their grant proposal;
3. Graduate students will do a longer presentation that includes a budget and data management plan;
4. Graduate students will take a leadership role during student presentations by asking meaningful questions, and providing anonymous and helpful feedback to their peers.

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:

4

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 <i>on average </i>throughout the duration of the course.

Response:

4

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:

An applied course that explores the multidisciplinary nature of fisheries science through a detailed examination of freshwater fish and habitats. Includes discussion of relevant fundamental concepts in ecology, chemistry, and geography. Practical skills in field sampling and data handling as well as skills (e.g. grant writing, science communication) and contemporary issues (e.g., ethical uses of AI tools) pertinent to fishery management and research will be applied.

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 use 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:

- 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:

Fish & Limnology is an advanced but introductory course, it emphasizes a broad introduction to the variable aspects of fisheries science as well as fundamental skills used therein. It focuses on Inland freshwater, distinguishing it from the heavy marine focus in other fishery courses. The course includes multiple robust labs on data management, visualization, and coding practices, introducing students to data science while simultaneously providing vital skills for the current natural resource job market. This course also discusses ethical uses of AI tools in fisheries and aquatic science, including while literature searching and troubleshooting statistical analyses and code.

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...

1. explain fundamental limnological / fisheries principles;
2. describe and perform a diversity of limnological / fisheries sampling techniques in the field, laboratory, and on a computer (i.e., data analysis);
3. apply basic functions in the R coding software, relevant for limnological / fisheries sciences, to environmental data;
4. critically read and assess the quality of peer-review papers from limnological / fisheries sciences;
5. summarize and connect topics from primary literature from limnological / fisheries sciences, for both specialists and non-specialist audiences.
6. explain the importance of data management practices for limnological / fisheries sciences; and
7. develop rigorous research questions and prepare a small research proposal, relevant for limnological / fisheries sciences

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. LAKEWATCH circulars, which were developed to educate Floridians on water quality and related topics, will be used as primary teaching materials. The circulars will be uploaded to their respective modules under the "Readings and Resources" folder on canvas. Additionally, all LAKEWATCH circulars can be downloaded here: <https://lakewatch.ifas.ufl.edu/extension/information-circulars/>

Additionally, a variety of handouts and research papers will be provided to you either as paper copies or electronically through our e-learning website. You may also find these useful:

- American Fisheries Society. 2007. Analysis and Interpretation of Freshwater Fisheries Data. C.S. Guy and M.L. Brown (editors), American Fisheries Society, Bethesda, MD. 961 pp.
- American Fisheries Society. 2009. Standard Methods for Sampling North American Freshwater Fishes. S.A. Bonar, W.A. Hubert, and D.W. Willis (editors), American Fisheries Society, Bethesda, MD. 335 pp.
- American Fisheries Society. 2010. Inland Fisheries Management in North America. W.A. Hubert and M.C. Quist (editors), American Fisheries Society, Bethesda, MD. 736 pp.
- American Fisheries Society. 2013. Fisheries Techniques. Zale, A.V., D.L. Parrish, and T.M. Sutton (editors), American Fisheries Society, Bethesda, MD. 1009 pp.
- Hoyer, M.V., and D.E. Canfield, Jr. 1994. Handbook of Common Freshwater Fish in Florida

Lakes.

- Special Publication 160. University of Florida, Florida Cooperative Extension Service, Gainesville, FL. 178 pp. (UF/IFAS Bookstore – on sale for \$1.00 – <http://ifasbooks.ifas.ufl.edu/p-162-handbook-of-common-freshwater-fish-in-florida-lakes.aspx>)
- Grill, G.; Lehner, B.; Thieme, M.; Geenen, B.; Tickner, D.; Antonelli, F.; Babu, S.; Borrelli, P.; Cheng, L.; Crochetiere, H.; Ehalt Macedo, H.; Filgueiras, R.; Goichot, M.; Higgins, J.; Hogan, Z.; Lip, B.; McClain, M. E.; Meng, J.; Mulligan, M.; Nilsson, C.; Olden, J. D.; Opperman, J. J.; Petry, P.; Reidy Liermann, C.; Sáenz, L.; Salinas-Rodríguez, S.; Schelle, P.; Schmitt, R. J. P.; Snider, J.; Tan, F.; Tockner, K.; Valdujo, P. H.; Van Soesbergen, A.; Zarfl, C. 2019. Mapping the World's Free-Flowing Rivers. *Nature*. 569 (7755), 215–221. <https://doi.org/10.1038/s41586-019-1111-9>.
- Vannote, R. L., Minshall, G. W., Cummins, K. W., Sedell, J. R., & Cushing, C. E. (1980). The River Continuum Concept. *Canadian Journal of Fisheries and Aquatic Sciences*, 37(1), 130–137. <https://doi.org/10.1139/f80-017>
- Heard, Stephen. 2016, 2022. *The Scientist's Guide to Writing, 2nd Edition: How to Write More Easily and Effectively throughout Your Scientific Career*. Princeton University Press. (\$15 on Amazon: <https://www.amazon.com/Scientists-Guide-Writing-Effectively-throughout/dp/0691170223>)

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:

Please see attached

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:

Midterm

20%

Annotated Biblio 10%
Lab Assignments

10%

Oral Presentation 15%
Class/Lab Participation 10%
Graphical PLS 5%
Final Exam

10%

Grant Proposal 20%

A: 94-100% A-: 90-93.99% B+: 87-89.99% B: 84-86.99% B-: 80-83.99%
C+: 77-79.99%
C: 74-76.99% C-: 70-73.99% D+: 67-69.99% D: 64-66.99% D-: 60-63.99%
E: < 60%

Instructor(s)

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

Response:

Dr. Gretchen Lescord

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started 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.

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/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/>.

Response:
Yes

Fish and Limnology – Spring 2025

FAS 6xxxC – 4 credits

1. Course Description:

An applied course that explores the multidisciplinary nature of fisheries science through a detailed examination of freshwater fish and their habitats. Includes discussion of relevant fundamental concepts in ecology, chemistry, biology, and geography. Applied practices in field sampling and data handling as well as skills (e.g. literature searching, grant writing) and contemporary issues (e.g., ethical uses of AI tools) pertinent to fishery management and research will be explored.

Fishery science encompasses a variety of scientific disciplines including geography, chemistry, and biology. By participating in this course, students will gain an understanding of:

1. the structure and function of aquatic habitats/systems
2. limnological field sampling and laboratory processing techniques
3. common fish field sampling and processing methods
4. analysis and reporting of limnological and fish data and
5. many of the major issues facing aquatic resources

This course is co-taught with FAS4305c, an undergraduate course. Notable differences among the two courses include:

- i. **FAS 6xxxC** students will write a longer and more in-depth grant proposal, as opposed to a literature review.
- ii. **FAS 6xxxC** students will do a longer presentation that includes a budget and data management plan.
- iii. **FAS 6xxxC** students will have a different midterm from FAS4305c, requiring more critical thinking and integration of ideas.
- iv. **FAS 6xxxC** students are required to complete an additional assignment (a graphical plain language summary) that supports their grant proposal.
- v. **FAS 6xxxC** students will take a leadership role during student presentations by asking meaningful questions and providing anonymous and helpful feedback to their peers.
- vi. **FAS 6xxxC** students will take a different midterm, with short- and long-answer questions intended to test critical thinking and information organization around the course material. FAS Conversely, 4305C student take a more traditional midterm, testing retention and understanding of specific concepts.

2. Instructors:

The instructor (Dr. Gretchen Lescord), along with their support staff and graduate students, are located off main campus at the School of Forest, Fisheries, and Geomatics Sciences, Program of Fisheries and Aquatic Sciences (7922 NW 71st Street, Gainesville, FL 32653).

Instructors: Dr. Gretchen Lescord – Assistant Professor of Applied Limnology and Florida LAKEWATCH director, <https://lakewatch.ifas.ufl.edu/>
Phone: (352) 846-6313 Email: lescord.g@ufl.edu

Co-Instructor: Mrs. Marina Schwartz - Data Manager, Florida LAKEWATCH
Phone: 352-273-3640 E-mail: mevanskeene@ufl.edu

Mr. Jason “mo” Bennett - Regional Coordinator, Florida LAKEWATCH

Teaching Assistant: [Add details]

The instructors for this course are a part of Florida's LAKEWATCH program. LAKEWATCH is a large volunteer-based water quality monitoring program studying Florida's lakes, estuaries, rivers and springs through monthly sampling. More information can be found at: <https://lakewatch.ifas.ufl.edu/>. Students will have access to LAKEWATCH's data, gear, and expertise throughout this course.

3. Dr. Lescord's Office Hours: Tuesdays [add time], on Zoom

Instructors are available for help during office hours and by appointment. Because we are based at the Millhopper Unit off campus, these hours and meetings will be held on Zoom. One-on-one Zoom sessions can be scheduled to go over course content, project-related work, or any other topic. Students, encountering difficulties with course material or seeking additional information, are strongly encouraged to make an appointment. We want you to succeed in our course!

[Add new Zoom info here]

4. Course Learning Objectives:

By the end of this course, students should be able to...

1. Explain fundamental limnological / fisheries principles
2. Perform a diversity of limnological / fisheries sampling techniques in the field, laboratory, and on a computer (i.e., data analysis)
3. Apply basic functions in the R coding software, relevant for limnological / fisheries sciences, to environmental data
4. Critically read and assess the quality of peer-review papers from limnological / fisheries sciences
5. Summarize and connect topics from primary literature from limnological / fisheries sciences, for both specialists and non-specialist audiences
6. Explain the importance of data management practices for limnological / fisheries sciences; and
7. Develop rigorous research questions and prepare a small research proposal, relevant for limnological / fisheries sciences

5. Course Website:

This course will be supported by a UF e-learning CANVAS website located at <https://elearning.ufl.edu/>. It will include the course syllabus, lecture presentations, recommended readings, handouts, course assignments, past and current lab data, presentation and paper guidelines, and other materials.

6. Class Schedule:

Lecture: 5th period (11:45 AM to 12:35 PM) EST on Tuesdays - 3108 MCBB (McCarty B)
5-6th period (11:45 AM to 1:40 PM EST) on Thursdays - 3108 MCBB (McCarty B)

Laboratory: 6-9th periods (12:50 PM to 4:55 PM EST) on Thursdays in 3108 McCarty B, in the CALS computer lab (3086 McCarty B). Alternate meeting locations for field labs at Lake Alice, the FFGS Millhopper Unit, or at other designated locations will be communicated as they are scheduled.

7. Course Logistics:

Students may access lectures, assignments, readings, and supporting materials through the course Canvas site, as they become available. This course will be taught in a face-to-face format.

For the first half of the semester, class periods will be largely lecture-based. However, several in-class activities will be used to break up long lecture periods, including group work. These lectures and activities will be largely organized into 2 sections: water and fish, though other material outside of these groupings will be discussed as well. Additionally, we will have 2-3 paper discussion classes, during which we critically read, review, and discuss important and recent peer-reviewed papers on fish & limnology. The midterm will cover all four topic areas, including content from guest lectures and paper discussions.

The second half of the semester will include an additional 1-2 paper discussions, but the focus will be on student-led presentations. The goal is to encourage peer-teaching and learning to facilitate both the enhancement of your communication skills (i.e., presenting, writing, reviewing) while simultaneously learning about current freshwater concerns in Florida and beyond. The course final will cover the entire semester, including all guest and student presentations, paper discussions, labs, and lectures.

Labs for this class will be highly interactive and hands on, spanning the field (i.e., Lake Alice), lab, and computing environments. Some labs will also focus on building the skills necessary to successfully complete a comprehensive and concise literature review.

8. Grading:

Non-project based (45%)		Project based (55%)	
Lab mini assignments	10%	Annotated bibliography	10%
Class/Lab Participation	10%	Oral Presentations	20%
Midterm	15%	Research Proposal	20%
Final Exam	10%	Graphical PLS*	5%

*PLS = Plain Language Summary (see below for more details)

A: 94-100% A-: 90-93.99% B+: 87-89.99% B: 84-86.99% B-: 80-83.99% C+: 77-79.99%
 C: 74-76.99% C-: 70-73.99% D+: 67-69.99% D: 64-66.99% D-: 60-63.99% E: < 60%

For UF's grading policy, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>
<https://catalog.ufl.edu/graduate/regulations/#text>

9. Exams and Assignments:

There are a total of 8 exams, activities, and assignments that make up your grade in this course. Instructions for each assignment will be communicated within the first 2 weeks of course (except for some lab assignments, which will be explained on the specific day, when the assignment is introduced). All assignments must be submitted by 11:59pm on their due date *via* canvas unless otherwise states herein or in class/labs.

Assignments based on individual projects include:

1. Annotated bibliography
2. Literature review & research proposal
3. Plain language summary (PLS) graphic
4. Oral presentation

Annotated bibliography & literature review/research proposal: Every year, the LAKEWATCH staff hold annual meetings with our community volunteers, and we are frequently asked questions about fisheries science and waterbody management. When we do not know the answer, we conduct a literature search and provide a summary of the relevant information that we find. This semester, you will be tasked with picking a recent question and answering it through a rigorous literature search. You will write a **2500-3000-word** (or ~4-6 page) review paper, using high-quality scientific studies. **A list of questions will be**

provided during the first lab; your selection must be approved by a course instructor by the end of the lab period on January 11, 2024. Graduate students are encouraged to pick a topic related to your MSc / PhD research, to enhance to applicability of this assignment to your graduate degree. However, the topic must be linked to freshwater science. Additionally, you will design and describe a proposed research project to fill these knowledge gaps, following the guidelines of the UF Water Institute's Graduate Research Fellowship: <https://waterinstitute.ufl.edu/graduate-student-research-award/>. This includes completing a small research budget (up to \$5,000) and justification document, as well as a brief data management plan. I will also be asking you to include a 1-page data management plan, which are commonly required for larger grants. This writing assignment will be enabled with a stepwise process, and some labs and assignments will focus on the skills and tools needed to complete the assignment effectively. More specifically, you will be required to hand in an *annotated bibliography* of 5 papers related to your chosen question, due mid-semester and will get feedback on your topic at that time. Additionally, there will be labs with outlining and peer-feedback activities, as well as ample opportunities for additional instructor feedback.

Plain Language Summary (PLS) Graphic: In addition to your review paper, you will also create a 1-page graphical PLS that summarizes your literature review findings. At least 1 summary figure (also known as abstract art or table of contents art) will be required. The target audience for this summary will be our LAKEWATCH volunteers (i.e., non-specialists, general public). Effective example of recent graphical PLS include: [\[add new examples here\]](#).

Oral presentation: To enable peer-teaching and learning, you will present a 15- to 17-minute presentation summarizing your literature review findings to the class. This will include a 3- to 5-min question period. Presentations will be given during class time, towards the end of the semester. All graduate students are required to attend these talks. Each graduate student will be required to ask 3 meaningful questions as an audience member across all presentations; this will make up part of your class participation mark.

Non-project based assignments and exams include:

1. Attendance and participation in class and labs
2. Laboratory mini assignments
3. Midterm exam
4. Final exam

Attendance and Participation: Attendance will be regularly taken in the classroom. Your participation mark will be made up of three things, totaling 10%: class attendance, participation in paper discussions, and contributions during other student's oral presentations. As graduate students, you will be expected to ask meaningful questions and provide anonymous feedback to the undergraduate student presenters in FAS 4305C. Anonymous feedback forms will be provided, and questions will be tracked. **You are permitted to miss 2 classes without any explanation required and it will NOT impact on your mark.** You will be required to review all class materials and make up any in-class activity within 7 days of the missed class (unless otherwise negotiated, under certain circumstances) to receive participation credit. Beyond these two classes, prior notification to missing any class above and beyond must be given, via email (lescord.g@ufl.edu), including the reason for your absence; make-up options will be discussed on a case-by-case basis and based on the validity of the reason for missing lab.

Laboratory mini assignments: A total of 10-12 small laboratory assignments will be handed out and completed during the lab period throughout this course. These assignments are designed to be relatively quick and simple, if the lab activities are completed and understood. They will be due at the end of each lab period or at the designated date/time provided within a given lab. Please note that because the labs are highly interactive and partly in the field, lab attendance is mandatory. Furthermore, your lab mates depend on you to get the collective work completed in the field and during peer-review assignments.

Thus, attendance will be taken at every lab *via* lab assignments. Please provide prior notification if a laboratory must be missed (via email, lescord.g@ufl.edu; make-up options will be discussed on a case-by-case basis and based on the validity of the reason for missing lab.

Midterm: A midterm exam, consisting of short and long answer questions, will be given mid-semester. No make-up exam is available, except for those who provide prior notification for a valid reason (and this notification is acknowledged and confirmed by Dr. Lescord) or due to an emergency, in accordance with university policies.

Final Exam: Your final will consist of long-answer questions based on the full course content, including your undergraduate and graduate peers' in-class presentations. No make-up exam is available, except for those who provide prior notification for a valid reason (and this notification is acknowledged and confirmed by Dr. Lescord) or due to an emergency, in accordance with university policies.

10. Lake Alice Laboratories:

A major part of the labs for this course will be spent in the field. More specifically, students will learn and practice important field techniques used in limnological science on Lake Alice. Working in teams, students will rotate through various training stations over 5 weeks. Two of these stations will be catching and tagging Lake Alice's fish, continuing a long-term data set associated with this course since 1988 (see Schwartz et al. 2021* for further details). Later in the semester, students will assist with laboratory practices that help generate additional data from the samples collected during field labs. Finally, all data will be shared with the class and used in subsequent data labs, giving the opportunity to analyze and interpret real ecological data in R Studio.

The field labs on Lake Alice will simulate intensive field work: each student should be prepared to attend and actively participate in each field exercise. **All students must bring a pair of rubber boots to all field labs, regardless of weather – these boots are part of your personal protective equipment while working on the lake.** If you do not bring boots, you cannot participate, and you will not receive credit for that day's lab activities. Dress warmly for cold weather, bring rain gear and a set of dry clothes. The lab will only be cancelled if thunderstorms are imminent.

This course requires a Materials and Supplies Fee for boat fuel, fish tbar tags, plastic bags and tin foil (for fish dissections), plastic gloves etc.

Field safety is paramount! Safety guidelines will be thoroughly discussed in class and lab, and a page of electrofishing safety rules will be provided as mandatory reading. Person protective equipment while electrofishing – including life jackets (instructors will provide), rubber gloves (instructors will provide), and rubber boots (students must provide) – must be worn at all times. Any concerns can be discussed openly with the instructors, whenever they arise. We have a strict "Leave No Trace" rule at the lake; everything we carry in, we bring out. We do our best to limit our impact on the ecosystem and we handle all fish with care and respect.

Field activities for this course have been approved under IUCUC ID: IACUC202300000750 (2023-2026).

**Schwartz, M. K., Canfield, D. E., & Cichra, C. E. (2021). Effects of Nutrient Reduction on the Water Quality and Largemouth Bass Population in Lake Alice, Florida. Florida Scientist, 84(1), 1–20.*

11. Technology Requirements:

- A computer with high-speed internet connection

- Latest version of web browser. Canvas supports only the two most recent versions of any given browser. <https://www.whatsmybrowser.org/>
- R studio and R core software
- Microsoft Office: Excel, Word, PowerPoint

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.

R and R studio will be required for the three data labs at the end of the semester. Please ensure your computer can download, install, and open both programs: <https://posit.co/download/rstudio-desktop/>. If there are any issues, please reach out to the instructors for assistance.

12. Recommended Textbooks and Other Readings:

There is no required textbook for this course. LAKEWATCH circulars, which were developed to educate Floridians on water quality and related topics, will be used as primary teaching materials. The circulars will be uploaded to their respective modules under the “Readings and Resources” folder on Canvas.

Additionally, all LAKEWATCH circulars can be downloaded here:

<https://lakewatch.ifas.ufl.edu/extension/information-circulars/>

Additionally, a variety of handouts and research papers will be provided to you either as paper copies or electronically through our e-learning website. You may also find these useful:

- American Fisheries Society. 2007. Analysis and Interpretation of Freshwater Fisheries Data. C.S. Guy and M.L. Brown (editors), American Fisheries Society, Bethesda, MD. 961 pp.
- American Fisheries Society. 2009. Standard Methods for Sampling North American Freshwater Fishes. S.A. Bonar, W.A. Hubert, and D.W. Willis (editors), American Fisheries Society, Bethesda, MD. 335 pp.
- American Fisheries Society. 2010. Inland Fisheries Management in North America. W.A. Hubert and M.C. Quist (editors), American Fisheries Society, Bethesda, MD. 736 pp.
- American Fisheries Society. 2013. Fisheries Techniques. Zale, A.V., D.L. Parrish, and T.M. Sutton (editors), American Fisheries Society, Bethesda, MD. 1009 pp.
- Hoyer, M.V., and D.E. Canfield, Jr. 1994. Handbook of Common Freshwater Fish in Florida Lakes.
- Schwartz, M. K., Canfield, D. E., & Cichra, C. E. (2021). Effects of Nutrient Reduction on the Water Quality and Largemouth Bass Population in Lake Alice, Florida. *Florida Scientist*, 84(1), 1–20.
- Special Publication 160. University of Florida, Florida Cooperative Extension Service, Gainesville, FL. 178 pp. (UF/IFAS Bookstore – on sale for \$1.00 – <http://ifasbooks.ifas.ufl.edu/p-162-handbook-of-common-freshwater-fish-in-florida-lakes.aspx>)
- Grill, G.; Lehner, B.; Thieme, M.; Geenen, B.; Tickner, D.; Antonelli, F.; Babu, S.; Borrelli, P.; Cheng, L.; Crochetiere, H.; Ehalt Macedo, H.; Filgueiras, R.; Goichot, M.; Higgins, J.; Hogan, Z.; Lip, B.; McClain, M. E.; Meng, J.; Mulligan, M.; Nilsson, C.; Olden, J. D.; Opperman, J. J.; Petry, P.; Reidy Liermann, C.; Sáenz, L.; Salinas-Rodríguez, S.; Schelle, P.; Schmitt, R. J. P.; Snider, J.; Tan, F.; Tockner, K.; Valdujo, P. H.; Van Soesbergen, A.; Zarfl, C. 2019. Mapping the World’s Free-Flowing Rivers. *Nature*. 569 (7755), 215–221. <https://doi.org/10.1038/s41586-019-1111-9>.
- Vannote, R. L., Minshall, G. W., Cummins, K. W., Sedell, J. R., & Cushing, C. E. (1980). The River Continuum Concept. *Canadian Journal of Fisheries and Aquatic Sciences*, 37(1), 130–137. <https://doi.org/10.1139/f80-017>

- Heard, Stephen. 2016, 2022. *The Scientist's Guide to Writing, 2nd Edition: How to Write More Easily and Effectively throughout Your Scientific Career*. Princeton University Press. (\$15 on Amazon: <https://www.amazon.com/Scientists-Guide-Writing-Effectively-throughout/dp/0691170223>)

Lastly, peer-reviewed papers chosen for paper discussion classes will be uploaded to Canvas at least 1 week before the discussion is to be held. Whenever possible, these papers will be recent and will represent current issues at the forefront of freshwater fisheries management.

13. General Policies:

This course plan and syllabus are subject to change in response to student and instructor needs. Any changes will be clearly communicated in advance through Canvas and in class.

Communication

Email (lescord.g@ufl.edu) or Canvas messages are the preferred method of communication in this course. Please be polite, professional, and clear in all email/Canvas messages.

Late Submissions & Make-up Requests

It is the responsibility of the student to access on-line lectures (PowerPoint slides), readings, and assignments, and to maintain satisfactory progress in the course. Requirements for class attendance and make-up assignments and other work are consistent with university policies that can be found at: Undergrad <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>
Grad <https://catalog.ufl.edu/graduate/regulations/#text>

Computer or other hardware failures, except failure of the UF e-Learning system, will not excuse students for missing assignments. Any late submissions due to technical issues MUST be accompanied by the ticket number received from the Helpdesk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request consideration. For computer, software compatibility, or access problems call the Help Desk phone number—352-392-HELP = 352- 392-4357 (option 2).

In general, unexcused late submissions will be docked -10% for every 24 hours the assignment is late. Late assignments will not be accepted more than 3 days past of the due date. Exceptions to these two policies may be made if prior notification for a valid reason (and this notification is acknowledged and confirmed by Dr. Lescord) or due to an emergency, in accordance with university policies.

Communication Courtesy and Professionalism

Students are expected to follow UF's student code of conduct at all times: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>. Just as in any professional environment, meaningful and constructive dialogue is expected in this class and requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. All members of the class are expected to follow rules of common courtesy, decency, and civility in all interactions. Failure to do so will not be tolerated and may result in loss of participation points and/or referral to the Dean of Students' Office.

Academic Honesty Policy

Students are expected to follow UF's honor code of conduct at all times: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"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 specifies a number of behaviors that are in violation of this code and the possible sanctions. See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

14. On use of Artificial Intelligence (AI) technology

One of the goals of this course is to provide opportunities to practice and hone your technical writing skills. I am committed to providing you meaningful feedback either through direct review or peer-review activities, to enable this improvement. To gain the most from these efforts, and to ensure everyone's time and efforts are equally respected: you are not permitted to use artificial intelligence (AI) software, such as ChatGPT, Perplexity AI, or Grammarly to generate new writing or significantly modify your or other's writing as part of your assignments herein. While I recognize that these tools may be employed in your future endeavors, building a strong foundation of effective technical writing will remain a necessity for a successful scientific career.

There are three exceptions to this rule:

1. First, is for reference management: I strongly encourage the use of technology, including AI tools, to track, store, and format your references for your annotated bibliography and literature report.
2. Second, I encourage the use of AI tools to understand your literature. For example, if you are confused when reading a statistics methods paragraph, you can ask ChatGPT to summarize what it means in simple language. Such questions are very helpful in developing your knowledge around a topic and interpreting information. However, you may not use the AI tool's response in any assignment; everything must be in your voice.
3. Lastly, AI tools can be very helpful when troubleshooting code in R. You are therefore welcome to use AI tools during the data labs to help you find and resolve coding issues.

15. Semester Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At approximately the mid-point of the semester, the School of Forest, Fisheries, and Geomatics Sciences may request anonymous feedback on student satisfaction on various aspects of this course. These surveys will be sent out through Canvas and are not required but encouraged. This is not the UF Faculty Evaluation! At the end of the semester, 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 e-mail 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/>.

16. Inclusive Learning Environment

This course embraces 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."

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, <http://www.disability.ufl.edu>

17. Campus Helping Resources:

For issues with technical difficulties for e-learning in Canvas, please post your question to the Technical Help Discussion in your course, or contact the UF Help Desk at:

- 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. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.

Student Life, Wellness, and Counseling Help

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.

- *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.

Student Complaint Process

The School of Forest, 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. You may also submit a complaint directly to UF administration:

- 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.](#)

Tentative course schedule (subject to change based on instructor and student needs). Please note, an excel version of this schedule can be found on Canvas.

Week	Date 1	Topic (add room #)	Date 2	Topic (add room #)	Lab	Lab Assignments Due (12)	Assignments due	
1	14-Jan	1, Intro I: course introductions	16-Jan	2, Intro II: history of limnology, Lake Alice, and "my lake"	Lab 1: Assignments discussion & topic selection (Lescord, 3108 McCarty B)	None		
2	21-Jan	3, Water I: lake morphology & ecology	23-Jan	4, Water II: river morphology & ecology	Lab 2: Literature searching & AI (Lescord)	Journal critique forms (1)		
3	28-Jan	5, Water III: nutrients & trophic state	30-Jan	6, Paper discussion 1 (Smidt et al. 2022)	Lab 3: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
4	4-Feb	7, Water IV: pH & hardness	6-Feb	8, Water V: DOM & water clarity	Lab 4: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
5	11-Feb	9, Fish I: fish sampling	13-Feb	10, Fish II: population estimates	Lab 5: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
6	18-Feb	11, Paper discussion 2 (Mueller et al. 2017)	20-Feb	12, Fish III: policies and paperwork	Lab 6: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
7	25-Feb	14, Aquatic plants	27-Feb	15, Paper discussion 3 (Looby et al. 2021)	Lab 8: Technical writing (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Writing worksheet (1)	Annotated bibliography (27-Feb-2025)	
8	4-Mar	13, Isotope ecology	6-Mar	16, Mercury	Lab 7: Presenting (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Storyboard reflection (1)	Take-home midterm questions (due 6-March-2025)	
9	11-Mar	17, Review class	13-Mar	None; off		None		
9	18-Mar	SPRING BREAK						
11	25-Mar	20, Paper discussion 4 (TBD)	27-Mar	21, FL Museum tour (Rob Robins, fish collection)	Lab 9: Recapture lab (Groups 1 & 3, Bennett, TA); Analytical lab (Groups 2 & 4, Lescord)	Data submission (Groups 1 & 3); Pipetting sheet (Groups 2 & 4)		
12	1-Apr	21, Student talks	3-Apr	22, Student talks	Lab 10: Recapture lab (Groups 2 & 4, Bennett, TA); Analytical lab (Groups 1 & 3, Lescord)	Data submission (Groups 2 & 4); Pipetting sheet (Groups 1 & 3)	Student presentation feedback	
13	8-Apr	23, Student talks	10-Apr	24, Student talks	Lab 11: Data lab 1 - Data management and R (Lescord, Schwartz, 3108 McCB)	Data management plan (1)	Student presentation feedback	
14	15-Apr	25, Student talks	17-Apr	26, Student talks	Lab 12: Data lab 2 - Fisheries stats (Lescord, Schwartz, 3108 McCB)	Final plot JPEG (1)	Student presentations	
15	22-Apr	26, Student talks or paper discussion		Final exam			Lit review (April 22nd)	
END								
Color guide:	Exam	Student presentations	Guest lecture	Paper discussion	Lab assignment due	Field Lab on Lake Alice	Assignment due	

FAS 4305C Introduction to Fishery Science

Current summary: “Principles of fish management in freshwater and marine systems. Includes fish and laboratory techniques for aquatic habitat and fishery resource assessment, aquaculture practices and consideration of contemporary issues pertinent to sport and commercial uses of renewable fishery resources.”

Requested summary: “An applied course that explores the multidisciplinary nature of fisheries science through a detailed examination of freshwater fish and habitats. Includes discussion of relevant fundamental concepts in ecology, chemistry, and geography. Practical skills in field sampling and data handling as well as skills (e.g. grant writing, science communication) and contemporary issues (e.g., ethical uses of AI tools) pertinent to fishery management and research will be applied.”

FAS 6xxxC Fish & Limnology

Co-taught with FAS 4305C Introduction to Fisheries Science

No current summary.

Requested summary: “An applied course that explores the multidisciplinary nature of fisheries science through a detailed examination of freshwater fish and habitats. Includes discussion of relevant fundamental concepts in ecology, chemistry, and geography. Practical skills in field sampling and data handling as well as skills (e.g. grant writing, science communication) and contemporary issues (e.g., ethical uses of AI tools) pertinent to fishery management and research will be applied.”

Notable differences among the courses include:

1. Primary - FAS 6xxxC students will write a longer and more in-depth grant proposal that addresses identified knowledge gaps, as opposed to a literature review
2. FAS 6xxxC students are required to complete an additional assignment (a graphical plain language summary) that supports their grant proposal
3. FAS 6xxxC students will do a longer presentation that includes a budget and data management plan
4. FAS 6xxxC students will take a leadership role during student presentations by asking meaningful questions, and providing anonymous and helpful feedback to their peers

Student Learning Objectives:

Both courses

By the end of this course, students should be able to...

1. explain fundamental limnological / fisheries principles
2. describe and perform a diversity of limnological / fisheries sampling techniques in the field, laboratory, and on a computer (i.e., data analysis)
3. apply basic functions in the R coding software, relevant for limnological / fisheries sciences, to environmental data
4. critically read and assess the quality of peer-review papers from limnological / fisheries sciences
5. summarize and connect topics from primary literature from limnological / fisheries sciences, for both specialists and non-specialist audiences

Graduate course additional objectives

6. explain the importance of data management practices for limnological / fisheries sciences
7. develop rigorous research questions and prepare a small research proposal, relevant for limnological / fisheries sciences

Week	Date 1	Topic (add room #)	Date 2	Topic (add room #)	Lab	Lab Assignments Due (12)	Assignments due	
1	14-Jan	1, Intro I: course introductions	16-Jan	2, Intro II: history of limnology, Lake Alice, and "my lake"	Assignments discussion & topic selection (Lescord, 3108 McCarty B)	None		
2	21-Jan	3, Water I: lake morphology, zonation, stratification	23-Jan	4, Water II: river morphology & order	Literature search & citation (Lescord)	Journal critique forms (1)		
3	28-Jan	5, Water III: nutrients & trophic state	30-Jan	6, Paper discussion 1, Water (Smidt et al. 2022)	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
4	4-Feb	7, Water IV: pH & hardness	6-Feb	8, Water V: DOM & water clarity	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
5	11-Feb	9, Fish I: fish sampling	13-Feb	10, Fish II: population estimates	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
6	18-Feb	11, Paper discussion 2: Fish CPUE	20-Feb	12, Fish V: guest lecture, fish disease - Dr. Ruth Francis-Floyd (UF)	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)		
7	25-Feb	13, Fish III: guest lecture, fish telemetry - Dr. Amanda Babin (Dept Fisheries and Oceans, Canada; zoom)	27-Feb	14, Fish IV: fish ecology	Technical writing (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Writing worksheet (1)	Annotated bibliography (Feb 22nd)	
8	4-Mar	15, Other I: Aquatic plants	3/6/2023	16, Paper discussion 3 (Looby et al. 2021)	Presenting (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Storyboard reflection (1)		
9	11-Mar	19, Other II: Mercury	13-Mar	18, Midterm		None		
9	18-Mar	SPRING BREAK						
11	25-Mar	20, Paper discussion 4, (PFAS or microplastics)	27-Mar	21, Student talks	Recapture lab (Groups 1 & 3, Bennett, TA); Analytical lab (Groups 2 & 4, Lescord)	Data submission (Groups 1 & 3, 0.5 points); Review outline (Groups 2 & 4)		
12	1-Apr	21, Student talks	3-Apr	22, Student talks	Recapture lab (Groups 2 & 4, Bennett, TA); Analytical lab (Groups 1 & 3, Lescord)	Data submission (Groups 2 & 4, 0.5 points); Review outline (Groups 1 & 3)	Student presentation feedback	
13	8-Apr	23, Student talks	10-Apr	24, Student talks	Data lab 1 - Data management and R (Lescord, Schwartz, 3108 McCB)	Data management plan (1)	Student presentation feedback	
14	15-Apr	25, Student talks	17-Apr	26, Student talks	Data lab 2 - Fisheries stats (Lescord, Schwartz, 3108 McCB)	Final plot JPEG (1)	Student presentation feedback	
15	22-Apr	26, Student talks or paper discussion		Take home final exam, due 11:59pm May 1	Data lab 3 - Chemistry stats (Lescord, Schwartz, 3108 McCB)	Final plot JPEG (1)	Grant & PLS (April 23rd)	
END								
Color guide:	Exam	Student presentations	Guest lecture	Paper discussion	Lab assignment due	Field Lab on Lake Alice	Assignment due	

Total 100% Tuesdays: 3108 McCB
 Midterm 20% Thursdays: 1042/1044 Microbiology & Cell Science Building
 Final 10%
 Participation 15%
 Annotated Bib 10%
 Presentation 15%
 Review 20%
 Lab assignme 10%

Week	Date 1	Topic (add room #)	Date 2	Topic (add room #)	Lab	Lab Assignments Due (12)	Assignments due
1	14-Jan	1, Intro I: course introductions	16-Jan	2, Intro II: history of limnology, Lake Alice, and "my lake"	Assignments discussion & topic selection (Lescord, 3108 McCarty B)	None	
2	21-Jan	3, Water I: lake morphology, zonation, stratification	23-Jan	4, Water II: river morphology & order	Literature search & citation (Lescord)	Journal critique forms (1)	
3	28-Jan	5, Water III: nutrients & trophic state	30-Jan	6, Paper discussion 1, Water (Smidt et al. 2022)	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
4	4-Feb	7, Water IV: pH & hardness	6-Feb	8, Water V: DOM & water clarity	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
5	11-Feb	9, Fish I: fish sampling	13-Feb	10, Fish II: population estimates	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
6	18-Feb	11, Paper discussion 2: Fish CPUE	20-Feb	12, Fish V: guest lecture, fish disease - Dr. Ruth Francis-Floyd (UF)	Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
7	25-Feb	13, Fish III: guest lecture, fish telemetry - Dr. Amanda Babin (Dept Fisheries and Oceans, Canada; zoom)	27-Feb	14, Fish IV: fish ecology	Technical writing (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Writing worksheet (1)	Annotated bibliography (Feb 22nd)
8	4-Mar	15, Other I: Aquatic plants	3/6/2023	16, Paper discussion 3 (Looby et al. 2021)	Presenting (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Storyboard reflection (1)	
9	11-Mar	19, Other II: Mercury	13-Mar	18, Midterm		None	
9	18-Mar	SPRING BREAK					
11	25-Mar	20, Paper discussion 4, (PFAS or microplastics)	27-Mar	21, Student talks	Recapture lab (Groups 1 & 3, Bennett, TA); Analytical lab (Groups 2 & 4, Lescord)	Data submission (Groups 1 & 3, 0.5 points); Review outline (Groups 2 & 4)	
12	1-Apr	21, Student talks	3-Apr	22, Student talks	Recapture lab (Groups 2 & 4, Bennett, TA); Analytical lab (Groups 1 & 3, Lescord)	Data submission (Groups 2 & 4, 0.5 points); Review outline (Groups 1 & 3)	Student presentations
13	8-Apr	23, Student talks	10-Apr	24, Student talks	Data lab 1 - Data management and R (Lescord, Schwartz, 3108 McCB)	Data management plan (1)	Student presentations
14	15-Apr	25, Student talks	17-Apr	26, Student talks	Data lab 2 - Fisheries stats (Lescord, Schwartz, 3108 McCB)	Final plot JPEG (1)	Student presentations
15	22-Apr	26, Student talks or paper discussion		Take home final exam, due 11:59pm May 1	Data lab 3 - Chemistry stats (Lescord, Schwartz, 3108 McCB)	Final plot JPEG (1)	Lit review (April 23rd)
END							
Color guide:	Exam	Student presentations	Guest lecture	Paper discussion	Lab assignment due	Field Lab on Lake Alice	Assignment due

Total 100% Tuesdays: 3108 McCB
Midterm 20% Thursdays: 1042/1044 Microbiology & Cell Science Building
Final 10%
Participation 15%
Annotated Bib 10%
Presentation 15%
Review 20%
Lab assignme 10%

Introduction to Freshwater Fishery Science – Spring 2025

FAS 4305C – 4 credits

1. Course Description

An applied course that explores the multidisciplinary nature of fisheries science through a detailed examination of freshwater fish and their habitats. Includes discussion of relevant fundamental concepts in ecology, chemistry, biology, and geography. Applied practices in field sampling and data handling as well as skills (e.g. literature searching, science communication) and contemporary issues (e.g., ethical uses of AI tools) pertinent to fishery management and research will be explored.

Fishery science encompasses a variety of scientific disciplines including geography, chemistry, and ecology. By participating in this course, students will gain an understanding of:

1. The structure and function of aquatic habitats/systems
2. Limnological field sampling and laboratory processing techniques
3. Common fish field sampling and processing methods
4. Analysis and reporting of limnological and fish data
5. Many of the major issues facing aquatic resources and
6. Effective communication strategies for the results thereof

Note that this course is co-taught with a graduate level course, FAS6932 (Fish & Limnology).

Prerequisite: Junior or Senior standing

2. Instructors

The instructor (Dr. Gretchen Lescord), along with their support staff and graduate students, are located off main campus at the School of Forest, Fisheries, and Geomatics Sciences, Program of Fisheries and Aquatic Sciences (7922 NW 71st Street, Gainesville, FL 32653).

Instructors: Dr. Gretchen Lescord – Assistant Professor of Applied Limnology and Florida LAKEWATCH director, <https://lakewatch.ifas.ufl.edu/>
Phone: (352) 846-6313 Email: lescord.g@ufl.edu

Co-Instructor: Mrs. Marina Schwartz - Data Manager, Florida LAKEWATCH
Phone: 352-273-3640 E-mail: mevanskeene@ufl.edu

Mr. Jason “mo” Bennett - Regional Coordinator, Florida LAKEWATCH
Phone: 352-273-3639 E-mail: jpb@ufl.edu

Teaching Assistant: [Add details]

The instructors for this course are a part of Florida’s LAKEWATCH program. LAKEWATCH is a large volunteer-based water quality monitoring program studying Florida’s lakes, estuaries, rivers and springs through monthly sampling. More information can be found at: <https://lakewatch.ifas.ufl.edu/>. Students will have access to LAKEWATCH’s data, gear, and expertise throughout this course.

3. Dr. Lescord’s Office Hours: Tuesdays [add time], on Zoom

Instructors are available for help during office hours and by appointment. Because we are based at the Millhopper Unit off campus, these hours and meetings will be held on Zoom. One-on-one Zoom sessions can be scheduled to go over course content, project-related work, or any other topic. Students, encountering difficulties with course material or seeking additional information, are strongly encouraged to make an appointment. We want you to succeed in our course!

[Add new Zoom info here]

4. Course Learning Objectives:

By the end of this course, students should be able to...

1. Explain fundamental limnological / fisheries principles
2. Describe and perform a diversity of limnological / fisheries sampling techniques in the field (e.g., electrofishing and tagging), laboratory (e.g., water filtration), and on a computer (i.e., data collation)
3. Apply basic functions in the R coding software, relevant for limnological / fisheries sciences, to environmental data
4. Critically read and assess the quality of peer-review papers from limnological / fisheries sciences
5. Summarize and connect topics from primary literature from limnological / fisheries sciences, for both specialists and non-specialist audiences

5. Course Website:

This course will be supported by a UF e-learning CANVAS website located at <https://elearning.ufl.edu/>. It will include the course syllabus, lecture presentations, recommended readings, handouts, course assignments, past and current lab data, presentation and paper guidelines, and other materials.

6. Class Schedule:

Lecture: 5th period (11:45 AM to 12:35 PM ET) on Tuesdays - 3108 MCBB (McCarty B)
5-6th period (11:45 AM to 1:40 p.m. ET) on Thursdays - 3108 MCBB (McCarty B)

Laboratory: 6-9th periods (12:50 PM to 4:55 PM ET) on Thursdays in 3108 McCarty B, in the CALS computer lab (3086 McCarty B). Alternate meeting locations for field labs at Lake Alice, the FFGS Millhopper Unit, or at other designated locations will be communicated as they are scheduled.

7. Course Logistics:

Students may access lectures, assignments, readings, and supporting materials through the course Canvas site, as they become available. This course will be taught in a face-to-face format.

For the first half of the semester, class periods will be largely lecture-based. However, several in-class activities will be used to break up long lecture periods, including group work. These lectures and activities will be largely organized into 2 sections: water and fish, though other material outside of these groupings will be discussed as well. Additionally, we will have 2-3 paper discussion classes, during which we critically read, review, and discuss important and recent peer-reviewed papers on freshwater fisheries science. The midterm will cover all four topic areas, including content from guest lectures and paper discussions.

The second half of the semester will include an additional 1-2 paper discussions, but the focus will be on student-led presentations. The goal is to encourage peer-teaching and learning to facilitate both the enhancement of your communication skills (i.e., presenting, writing, reviewing) while simultaneously learning about current freshwater concerns in Florida and beyond. The course final will cover the entire semester, including all guest and student presentations, paper discussions, labs, and lectures.

Labs for this class will be highly interactive and hands on, spanning the field (i.e., Lake Alice), lab, and computing environments. Some labs will also focus on building the skills necessary to successfully complete a comprehensive and concise literature review.

8. Grading:

Non-project based (50%)		Project based (50%)	
Lab mini assignments	10%	Annotated bibliography	10%
Class/Lab Participation	10%	Oral Presentations	20%
Midterm	20%	Research Proposal	20%
Final Exam	10%		

A: 94-100% A-: 90-93.99% B+: 87-89.99% B: 84-86.99% B-: 80-83.99% C+: 77-79.99%
 C: 74-76.99% C-: 70-73.99% D+: 67-69.99% D: 64-66.99% D-: 60-63.99% E: < 60%

For UF's grading policy, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

9. Exams and Assignments:

There are a total of 7 exams, activities, and assignments that make up your grade in this course. Instructions for each assignment will be communicated within the first 2 weeks of course (except for some lab assignments, which will be explained on the specific day, when the assignment is introduced). All assignments must be submitted by 11:59pm on their due date *via* canvas unless otherwise states herein or in class/labs.

Assignments based on individual projects include:

1. Annotated bibliography
2. Literature Review
3. Oral presentation on literature review topic

Literature review & annotated bibliography: Every year, the LAKEWATCH staff hold annual meetings with our community volunteers, and we are frequently asked questions about fisheries science and waterbody management. When we do not know the answer, we conduct a literature search and provide a summary of the relevant information that we find. This semester, you will be tasked with picking a recent question and answering it through a rigorous literature search. You will write a 4000-4500-word (or ~7-8-page) review paper, using high-quality scientific studies. **A list of questions will be provided during the first lab; your selection must be approved by a course instructor by the end of the lab period on January 11, 2024.** This writing assignment will be enabled with a stepwise process, and some labs and assignments will focus on the skills and tools needed to complete the assignment effectively. More specifically, you will be required to hand in an *annotated bibliography* of 5 papers related to your chosen question, due mid-semester and will get feedback on your topic at that time. Additionally, there will be labs with outlining and peer-feedback activities, as well as ample opportunities for additional instructor feedback.

Oral presentation: To enable peer-teaching and learning, you will present a 10- to 12-minute presentation summarizing your literature review findings to the class. This will include a 3- to 5-min question period. Presentations will be given during class time, towards the end of the semester. All students are required to attend these talks, as part of your participation grade (see below).

Non-project based assignments and exams include:

1. Attendance and participation in class and labs
2. Laboratory mini assignments
3. Midterm exam
4. Final exam

Attendance and Participation: Attendance will be regularly taken in the classroom *via* name tags. Your participation mark will be made up of three things, totaling 10%: class attendance, participation in paper discussions, and attendance and engagement during other student's oral presentations. **You are permitted to miss 2 classes without any explanation required and it will NOT impact on your mark.** You will be required to review all class materials and make up any in-class activity within 7 days of the missed class (unless otherwise negotiated, under certain circumstances) to receive participation credit. Beyond these two classes, prior notification to missing any class above and beyond must be given, via email (lescord.g@ufl.edu), including the reason for your absence; make-up options will be considered and determined on a case-by-case basis.

Laboratory mini assignments: A total of 10-12 small laboratory assignments will be assigned and completed during the lab period throughout this course. These assignments are designed to be relatively quick and simple, if the lab activities are completed and understood. Due dates will vary and will be clearly communicated in respective labs. These 12 assignments will be worth a collective 10% of your final grade. Please note that because the labs are highly interactive and partly in the field, lab attendance is mandatory. Furthermore, your lab mates depend on you to get the collective work completed in the field and during peer-review assignments. Thus, attendance will be taken at every lab *via* lab assignments. Please provide prior notification if a laboratory must be missed (via email, lescord.g@ufl.edu; make-up options will be discussed on a case-by-case basis and based on the validity of the reason for missing lab.

Midterm: A midterm exam, consisting of short- and/or long-answer, multiple choice, and fill-in-the-blank questions, will be given mid-semester. No make-up exam is available, except for those who provide prior notification for a valid reason (and this notification is acknowledged and confirmed by Dr. Lescord) or due to an emergency, in accordance with university policies.

Final Exam: Your final will consist of short- and/or long-answer questions based on the full course content, including your undergraduate and graduate peers' in-class presentations. No make-up exam is available, except for those who provide prior notification for a valid reason (and this notification is acknowledged and confirmed by Dr. Lescord) or due to an emergency, in accordance with university policies.

10. Lake Alice Laboratories:

A major part of the labs for this course will be spend in the field. More specifically, students will learn and practice important field techniques used in freshwater science on Lake Alice. Working in teams, students will rotate through various training stations over 5 weeks. Two of these stations will be catching and tagging Lake Alice's fish, continuing a long-term data set associated with this course since

1988 (see Schwartz et al. 2021* for further details). Later in the semester, students will assist with laboratory practices that help generate additional data from the samples collected during field labs. Finally, all data will be shared with the class and used in subsequent data labs, giving the opportunity to analyze and interpret real ecological data in R Studio.

The field labs on Lake Alice will simulate intensive field work: each student should be prepared to attend and actively participate in each field exercise. **All students must bring a pair of rubber boots to all field labs, regardless of weather – these boots are part of your personal protective equipment while working on the lake.** If you do not bring boots, you cannot participate, and you will not receive credit for that day's lab activities. Dress warmly for cold weather, bring rain gear and a set of dry clothes. The lab will only be cancelled if thunderstorms are imminent.

This course requires a Materials and Supplies Fee for boat fuel, fish tbar tags, plastic bags and tin foil (for fish dissections), plastic gloves etc.

Field safety is paramount! Safety guidelines will be thoroughly discussed in class and lab, and a page of electrofishing safety rules will be provided as mandatory reading. Person protective equipment while electrofishing – including life jackets (instructors will provide), rubber gloves (instructors will provide), and rubber boots (students must provide) – must be worn at all times. Any concerns can be discussed openly with the instructors, whenever they arise. We have a strict “Leave No Trace” rule at the lake; everything we carry in, we bring out. We do our best to limit our impact on the ecosystem and we handle all fish with care and respect.

Field activities for this course have been approved under IUCUC ID: IACUC202300000750 (2023-2026).

**Schwartz, M. K., Canfield, D. E., & Cichra, C. E. (2021). Effects of Nutrient Reduction on the Water Quality and Largemouth Bass Population in Lake Alice, Florida. Florida Scientist, 84(1), 1–20.*

11. Technology Requirements:

- A computer with high-speed internet connection
- Latest version of web browser. Canvas supports only the two most recent versions of any given browser. <https://www.whatsmybrowser.org/>
- R studio and R core software
- Microsoft Office: Excel, Word, PowerPoint

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.

R and R studio will be required for the three data labs at the end of the semester. Please ensure your computer can download, install, and open both programs: <https://posit.co/download/rstudio-desktop/>. If there are any issues, please reach out to the instructors for assistance.

12. Recommended Textbooks and Other Readings:

There is no required textbook for this course. LAKEWATCH circulars, which were developed to educate Floridians on water quality and related topics, will be used as primary teaching materials. The circulars will be uploaded to their respective modules under the “Readings and Resources” folder on Canvas. Additionally, all LAKEWATCH circulars can be downloaded here:

<https://lakewatch.ifas.ufl.edu/extension/information-circulars/>

Additionally, a variety of handouts and research papers will be provided to you either as paper copies or electronically through our e-learning website. You may also find these useful:

- American Fisheries Society. 2007. Analysis and Interpretation of Freshwater Fisheries Data. C.S. Guy and M.L. Brown (editors), American Fisheries Society, Bethesda, MD. 961 pp.
- American Fisheries Society. 2009. Standard Methods for Sampling North American Freshwater Fishes. S.A. Bonar, W.A. Hubert, and D.W. Willis (editors), American Fisheries Society, Bethesda, MD. 335 pp.
- American Fisheries Society. 2010. Inland Fisheries Management in North America. W.A. Hubert and M.C. Quist (editors), American Fisheries Society, Bethesda, MD. 736 pp.
- American Fisheries Society. 2013. Fisheries Techniques. Zale, A.V., D.L. Parrish, and T.M. Sutton (editors), American Fisheries Society, Bethesda, MD. 1009 pp.
- Hoyer, M.V., and D.E. Canfield, Jr. 1994. Handbook of Common Freshwater Fish in Florida Lakes.
- Schwartz, M. K., Canfield, D. E., & Cichra, C. E. (2021). Effects of Nutrient Reduction on the Water Quality and Largemouth Bass Population in Lake Alice, Florida. *Florida Scientist*, 84(1), 1–20.
- Special Publication 160. University of Florida, Florida Cooperative Extension Service, Gainesville, FL. 178 pp. (UF/IFAS Bookstore – on sale for \$1.00 – <http://ifasbooks.ifas.ufl.edu/p-162-handbook-of-common-freshwater-fish-in-florida-lakes.aspx>)
- Grill, G.; Lehner, B.; Thieme, M.; Geenen, B.; Tickner, D.; Antonelli, F.; Babu, S.; Borrelli, P.; Cheng, L.; Crochetiere, H.; Ehalt Macedo, H.; Filgueiras, R.; Goichot, M.; Higgins, J.; Hogan, Z.; Lip, B.; McClain, M. E.; Meng, J.; Mulligan, M.; Nilsson, C.; Olden, J. D.; Opperman, J. J.; Petry, P.; Reidy Liermann, C.; Sáenz, L.; Salinas-Rodríguez, S.; Schelle, P.; Schmitt, R. J. P.; Snider, J.; Tan, F.; Tockner, K.; Valdujo, P. H.; Van Soesbergen, A.; Zarfl, C. 2019. Mapping the World’s Free-Flowing Rivers. *Nature*. 569 (7755), 215–221. <https://doi.org/10.1038/s41586-019-1111-9>.
- Vannote, R. L., Minshall, G. W., Cummins, K. W., Sedell, J. R., & Cushing, C. E. (1980). The River Continuum Concept. *Canadian Journal of Fisheries and Aquatic Sciences*, 37(1), 130–137. <https://doi.org/10.1139/f80-017>
- Heard, Stephen. 2016, 2022. *The Scientist’s Guide to Writing, 2nd Edition: How to Write More Easily and Effectively throughout Your Scientific Career*. Princeton University Press. (\$15 on Amazon: <https://www.amazon.com/Scientists-Guide-Writing-Effectively-throughout/dp/0691170223>)

Lastly, peer-reviewed papers chosen for paper discussion classes will be uploaded to Canvas at least 1 week before the discussion is to be held. Whenever possible, these papers will be recent and will represent current issues at the forefront of freshwater fisheries management.

13. General Policies:

This course plan and syllabus are subject to change in response to student and instructor needs. Any changes will be clearly communicated in advance through Canvas and in class.

Communication

Email (lescord.g@ufl.edu) or Canvas messages are the preferred method of communication in this course. Please be polite, professional, and clear in all email/Canvas messages.

Late Submissions & Make-up Requests

It is the responsibility of the student to access on-line lectures (PowerPoint slides), readings, and assignments, and to maintain satisfactory progress in the course. Requirements for class attendance and make-up assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Computer or other hardware failures, except failure of the UF e-Learning system, will not excuse students for missing assignments. Any late submissions due to technical issues MUST be accompanied by the ticket number received from the Helpdesk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request consideration. For computer, software compatibility, or access problems call the Help Desk phone number—352-392-HELP = 352- 392-4357 (option 2).

In general, unexcused late submissions will be docked -10% for every 24 hours the assignment is late. Late assignments will be accepted more than 3 days past of the due date. Exceptions to these two policies may be made if prior notification for a valid reason (and this notification is acknowledged and confirmed by Dr. Lescord) or due to an emergency, in accordance with university policies.

Communication Courtesy and Professionalism

Students are expected to follow UF's student code of conduct at all times:

<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>. Just as in any professional environment, meaningful and constructive dialogue is expected in this class and requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. All members of the class are expected to follow rules of common courtesy, decency, and civility in all interactions. Failure to do so will not be tolerated and may result in loss of participation points and/or referral to the Dean of Students' Office.

Academic Honesty Policy

Students are expected to follow UF's honor code of conduct at all times:

<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"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 specifies a number of behaviors that are in violation of this code and the possible sanctions. See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.*

14. On use of Artificial Intelligence (AI) technology

One of the goals of this course is to provide opportunities to practice and hone your technical writing skills. I am committed to providing you meaningful feedback either through direct review or peer-review activities, to enable this improvement. To gain the most from these efforts, and to ensure everyone's time and efforts are equally respected: you are not permitted to use artificial intelligence (AI) software,

such as ChatGPT, Perplexity AI, or Grammarly to generate new writing or significantly modify your or other's writing as part of your assignments herein. While I recognize that these tools may be employed in your future endeavors, building a strong foundation of effective technical writing will remain a necessity for a successful scientific career.

There are three exceptions to this rule:

1. First, is for reference management: I strongly encourage the use of technology, including AI tools, to track, store, and format your references for your annotated bibliography and literature report.
2. Second, I encourage the use of AI tools to understand your literature. For example, if you are confused when reading a statistics methods paragraph, you can ask ChatGPT to summarize what it means in simple language. Such questions are very helpful in developing your knowledge around a topic and interpreting information. However, you may not use the AI tool's response in any assignment; everything must be in your voice.
3. Lastly, AI tools can be very helpful when troubleshooting code in R. You are therefore welcome to use AI tools during the data labs to help you find and resolve coding issues.

15. Semester Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At approximately the mid-point of the semester, the School of Forest, Fisheries, and Geomatics Sciences may request anonymous feedback on student satisfaction on various aspects of this course. These surveys will be sent out through Canvas and are not required but encouraged. This is not the UF Faculty Evaluation! At the end of the semester, 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 e-mail 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/>.

16. Inclusive Learning Environment

This course embraces 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."

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, <http://www.disability.ufl.edu>

17. Campus Helping Resources:

For issues with technical difficulties for e-learning in Canvas, please post your question to the Technical Help Discussion in your course, or contact the UF Help Desk at:

- 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. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.

Student Life, Wellness, and Counseling Help

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.

- *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.

Student Complaint Process

The School of Forest, 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. You may also submit a complaint directly to UF administration:

- 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.](#)

18. **Tentative course schedule** (subject to change based on instructor and student needs). Please note, an excel version of this schedule can be found on Canvas.

Week	Date 1	Topic (add room #)	Date 2	Topic (add room #)	Lab	Lab Assignments Due (12)	Assignments due
1	14-Jan	1, Intro I: course introductions	16-Jan	2, Intro II: history of limnology, Lake Alice, and "my lake"	Lab 1: Assignments discussion & topic selection (Lescord, 3108 McCarty B)	None	
2	21-Jan	3, Water I: lake morphology & ecology	23-Jan	4, Water II: river morphology & ecology	Lab 2: Literature searching & AI (Lescord)	Journal critique forms (1)	
3	28-Jan	5, Water III: nutrients & trophic state	30-Jan	6, Paper discussion 1 (Smidt et al. 2022)	Lab 3: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
4	4-Feb	7, Water IV: pH & hardness	6-Feb	8, Water V: DOM & water clarity	Lab 4: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
5	11-Feb	9, Fish I: fish sampling	13-Feb	10, Fish II: population estimates	Lab 5: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
6	18-Feb	11, Paper discussion 2 (Mueller et al. 2017)	20-Feb	12, Fish III: policies and paperwork	Lab 6: Field - fish1, fish2, water, inverts (ALL, Lake Alice)	Field questions/data submission (1)	
7	25-Feb	14, Aquatic plants	27-Feb	15, Paper discussion 3 (Looby et al. 2021)	Lab 8: Technical writing (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Writing worksheet (1)	Annotated bibliography (27-Feb-2025)
8	4-Mar	13, Isotope ecology	6-Mar	16, Mercury	Lab 7: Presenting (Lescord, 3108 McCarty B) *May swap with a field lab, if weather issue arise	Storyboard reflection (1)	
9	11-Mar	17, Review class	13-Mar	18, Midterm		None	
9	18-Mar	SPRING BREAK					
11	25-Mar	20, Paper discussion 4, (TBD)	27-Mar	21, FL Museum tour (Rob Robins, fish collection)	Lab 9: Recapture lab (Groups 1 & 3, Bennett, TA); Analytical lab (Groups 2 & 4, Lescord)	Data submission (Groups 1 & 3); Pipetting sheet (Groups 2 & 4)	
12	1-Apr	21, Student talks	3-Apr	22, Student talks	Lab 10: Recapture lab (Groups 2 & 4, Bennett, TA); Analytical lab (Groups 1 & 3, Lescord)	Data submission (Groups 2 & 4); Pipetting sheet (Groups 1 & 3)	Student presentations
13	8-Apr	23, Student talks	10-Apr	24, Student talks	Lab 11: Data lab 1 - Data management and R (Lescord, Schwartz, 3108 McCB)	Data management plan (1)	Student presentations
14	15-Apr	25, Student talks	17-Apr	26, Student talks	Lab 12: Data lab 2 - Fisheries stats (Lescord, Schwartz, 3108 McCB)	Final plot JPEG (1)	Student presentations
15	22-Apr	26, Student talks or paper discussion		Final exam			Lit review (22-April-2025)
END							
Color guide:	Exam	Student presentations	Guest lecture	Paper discussion	Lab assignment due	Field Lab on Lake Alice	Assignment due

Course|New for request 19061

Info

Request: EDF 7XXX Natural Language Processing in Education Research

Description of request: The submission is to get approval on a newly developed course: 7XXX Natural Language Processing in Education

Submitter: Eunjin Shin jinnie.shin@ufl.edu

Created: 11/12/2024 2:43:06 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:
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.).

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:
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 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:

Natural Language Processing in Education Research

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:

NLP in Education Research

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 <i>currently</i> <i>planned</i> 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:
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:
A comprehensive overview of NLP techniques and applications in educational research, with an emphasis on Python-based text analysis and machine learning integration.

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

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:

EDF7405 Advanced Quantitative Foundations

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

- 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 strategically positioned within the "AI for Educational Research" pathway, following the completion of advanced quantitative courses that lay the groundwork for basic linear algorithmic training. EDF 7xxx builds upon this foundation, transitioning students from structured, numerical data to the unstructured, nuanced realm of textual data. The placement ensures that students are well-versed in quantitative reasoning and are now ready to extend their analytical prowess to incorporate advanced AI-driven techniques. The knowledge and skills acquired in this course will empower students to process and analyze text data effectively, a crucial step in the contemporary research and evaluation methodology 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:

Students will have opportunity to survey the NLP literature in the emerging AI education research context to acquire theoretical backgrounds to understand the methods, and to gain hands-on experience in education text analysis using Python. Two primary learning components of this course include the theoretical and mathematical aspects of NLP and the hands-on programming experience in NLP analysis using Python.

Student Learning Outcomes

1. Students will understand the process of supervised and unsupervised text analysis.
2. Students will implement multiple machine learning methods to preprocess the text input.
3. Students will implement and evaluate language models.
4. Students will evaluate relationships between the varying levels of text input and effective text vectorization methods.
5. Students will implement unsupervised and supervised topic modeling approach.
6. Students will implement unsupervised and supervised text summarization 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:

There is no required textbook. Required journal articles and book chapters are provided on the Canvas course website.

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:

Schedule of Required Readings:

Week 1 – Introduction to Natural Language Processing in Education Research

- Chapter 1 of Jurafsky, D., Martin J. H. (2006) Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition.
- Ferreira-Mello, R., André, M., Pinheiro, A., Costa, E., & Romero, C. (2019). Text mining in education. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 9(6), e1332.

Week 2 – Unit of Analysis and Text Processing

- Chapter 2 of Jurafsky, D., Martin J. H. (2006) Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition.
- Ryland Williams, J., Lessard, P. R., Desu, S., Clark, E. M., Bagrow, J. P., Danforth, C. M., & Sheridan Dodds, P. (2015). Zipf's law holds for phrases, not words. Scientific reports, 5(1), 12209.

Week 3 – Overview of Probability Theory in Natural Language Processing

- Ranjan, N., Mundada, K., Phaltane, K., & Ahmad, S. (2016). A Survey on Techniques in NLP. International Journal of Computer Applications, 134(8), 6-9.
- Cambria, E., & White, B. (2014). Jumping NLP curves: A review of natural language processing research. IEEE Computational intelligence magazine, 9(2), 48-57.

Week 4 – Text Vectorization: Part 1 Bag of Words

- Chapter 6 of Jurafsky, D., Martin J. H. (2006) Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition.
- Qaiser, S., & Ali, R. (2018). Text mining: use of TF-IDF to examine the relevance of words to documents. International Journal of Computer Applications, 181(1), 25-29.

Week 5 – Text Vectorization Part 2: Embedding Methods

- Chapter 6 of Jurafsky, D., Martin J. H. (2006) Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition.
- Li, Y., & Yang, T. (2018). Word embedding for understanding natural language: a survey. Guide to big data applications, 83-104.

Week 6 – Text Vectorization Part 3: Computational Linguistic Tools

- François, T., & Miltsakaki, E. (2012, June). Do NLP and machine learning improve traditional readability formulas?. In Proceedings of the First Workshop on Predicting and Improving Text

Readability for target reader populations (pp. 49-57).

- Graesser, A. C., McNamara, D. S., Louwerse, M. M., & Cai, Z. (2004). Coh-Metrix: Analysis of text on cohesion and language. *Behavior research methods, instruments, & computers*, 36(2), 193-202.

Week 7 – Statistical Language Model: N-gram Language Model

- Chapter 3 of Jurafsky, D., Martin J. H. (2006) *Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition*.
- François, T. (2009, April). Combining a statistical language model with logistic regression to predict the lexical and syntactic difficulty of texts for FFL. In *Proceedings of the Student Research Workshop at EACL 2009* (pp. 19-27)

Week 8 – Machine Learning Overview for Text Classification

- Chapter 5 of Jurafsky, D., Martin J. H. (2006) *Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition*.
- Orrù, G., Monaro, M., Conversano, C., Gemignani, A., & Sartori, G. (2020). Machine learning in psychometrics and psychological research. *Frontiers in psychology*, 10, 2970.

Week 9 – Generative Models and Algorithms for Text Classification

- Chapter 4 of Jurafsky, D., Martin J. H. (2006) *Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition*.

Week 10 – Discriminative models and Algorithms for Text Classification

- Chapter 7 of Jurafsky, D., Martin J. H. (2006) *Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition*.
- Rio, U. (2013, November). Text message categorization of collaborative learning skills in online discussion using support vector machine. In *2013 International Conference on Computer, Control, Informatics and Its Applications (IC3INA)*(pp. 295-300). IEEE.

Week 11 – Unsupervised Learning Algorithms: Text Clustering

- Phoophuangpairaj, R., & Pipattarasakul, P. (2022). Preliminary Indicators of EFL Essay Writing for Teachers' Feedback Using Automatic Text Analysis. *International Journal of Educational Methodology*, 8(1), 55-68.
- Polyak, S. T., von Davier, A. A., & Peterschmidt, K. (2017). Computational psychometrics for the measurement of collaborative problem solving skills. *Frontiers in psychology*, 8, 2029.

Week 12 – Unsupervised Learning Algorithms: Topic Modeling Approach

- Buenano-Fernandez, D., Gonzalez, M., Gil, D., & Luján-Mora, S. (2020). Text mining of open-ended questions in self-assessment of university teachers: An LDA topic modeling approach. *IEEE Access*, 8, 35318-35330.
- Mimno, D., Wallach, H., Talley, E., Leenders, M., & McCallum, A. (2011, July). Optimizing semantic coherence in topic models. In *Proceedings of the 2011 conference on empirical methods in natural language processing* (pp. 262-272).

Week 13 – Unsupervised Learning Algorithms: Text Summarization Approach

- Wong, K. F., Wu, M., & Li, W. (2008, August). Extractive summarization using supervised and semi-supervised learning. In *Proceedings of the 22nd international conference on computational linguistics (Coling 2008)* (pp. 985-992).
- Mihalcea, R., & Tarau, P. (2004, July). Textrank: Bringing order into text. In *Proceedings of the 2004 conference on empirical methods in natural language processing* (pp. 404-411).

Week 14 – Supervised and Unsupervised Algorithms: Chatbots, QAs and Information Retrieval

- Chapters 14 & 15 of Jurafsky, D., Martin J. H. (2006) *Speech and Language Processing: An introduction to natural language processing, computational linguistics, and speech recognition*.

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:

Course Requirements

The course will follow Team-Based Learning (<http://www.teambasedlearning.org/>) principles. Students are expected to read course materials associated with each class meeting in advance of the meeting. The assessments are based on targeting different levels of Bloom's taxonomy.

Assignment and Data analyses: Students will complete 3 team data analyses of datasets using Python and present results. The assignment also includes short constructed-response questions which require students to discuss with their team members to demonstrate their theoretical understanding of the conceptual elements.

Research Project: Students will submit a final paper that can have at most two authors, which will follow the format of proposals for the Educational Data Mining (EDM) Conference. The research project will target the Application, Analysis, Synthesis and Evaluation levels of Bloom's taxonomy. Students will pick one of the NLP topics introduced in the lecture and homework assignments to replicate or conduct the analysis using a new dataset. Students are expected to consult with the instructor in advance to identify the appropriate data sources, topic, and the analysis framework.

Research Project Presentation: Students will prepare a short conference presentation to introduce their research questions, methods, and preliminary findings. Students will demonstrate how they constructed and implemented the Python codes during the presentation.

Extra credit - No planned opportunities for extra credit exist in this course.

Assessment - weight

1. Assignment and Data Analysis– 60% (20% * three assignments)
2. Research Project – 30%
3. Research Project Presentation – 10%

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.

Instructor(s)

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

Response:
Jinnie Shin

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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/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/>.

Response:

Yes

Natural Language Processing in Education Research

EDF 7XXX: Section XXXX

Class Period: Day, Period, Time

Class Location: _____

Academic Term: Fall 20XX 3 credit course

INSTRUCTOR CONTACT INFORMATION:

Name: Jinnie Shin, Ph.D.

E-mail: jinnie.shin@coe.ufl.edu

Office Phone: 352-273-4330

Office: Norman Hall 2705E

Office Hours: Tuesdays and Thursdays from 10:50am-11:50am. Others by appointment.

COURSE DESCRIPTION:

A comprehensive overview of Natural Language Processing (NLP) techniques and applications in educational research, with an emphasis on Python-based text analysis and machine learning integration.

COURSE OBJECTIVES:

By the end of this course, students will be able to...

- Understand the process of supervised and unsupervised text analysis.
- Implement multiple machine learning methods to preprocess the text input.
- Implement and evaluate language models.
- Evaluate relationships between the varying levels of text input and effective text vectorization methods.
- Implement unsupervised and supervised topic modeling approach.
- Implement unsupervised and supervised text summarization approach.

TEXTBOOKS:

Required

- Jurafsky, D. & Martin, J. H. (2024) *Speech and Language Processing: An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition with Language Models* (3rd ed.). (Available: https://web.stanford.edu/~jurafsky/slp3/ed3bookaug20_2024.pdf)
- Required journal articles are provided on the Canvas course website.

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)
1	Introductions	<ul style="list-style-type: none"> • Syllabus 	
2	Introduction to Natural Language Processing in Education Research	<ul style="list-style-type: none"> • Chapter 1 of Jurafsky, D., Martin J. H. (2024). • Ferreira-Mello, R., André, M., Pinheiro, A., Costa, E., & Romero, C. (2019). Text mining in education. <i>Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery</i>, 9(6), e1332. 	

3	Unit of Analysis and Text Processing	<ul style="list-style-type: none"> Chapter 2 of Jurafsky, D., Martin J. H. (2024). Ryland Williams, J., Lessard, P. R., Desu, S., Clark, E. M., Bagrow, J. P., Danforth, C. M., & Sheridan Dodds, P. (2015). Zipf's law holds for phrases, not words. <i>Scientific reports</i>, 5(1), 12209 Gao, R., Merzdorf, H. E., Anwar, S., Hipwell, M. C., & Srinivasa, A. (2024). Automatic assessment of text-based responses in post-secondary education: A systematic review. <i>Computers and Education: Artificial Intelligence</i>, 100206. 	
3	Overview of Probability Theory in Natural Language Processing	<ul style="list-style-type: none"> Ranjan, N., Mundada, K., Phaltane, K., & Ahmad, S. (2016). A Survey on Techniques in NLP. <i>International Journal of Computer Applications</i>, 134(8), 6-9. Cambria, E., & White, B. (2014). Jumping NLP curves: A review of natural language processing research. <i>IEEE Computational intelligence magazine</i>, 9(2), 48-57 	
4	Text Vectorization Part 1: Bag of Words	<ul style="list-style-type: none"> Chapter 6 of Jurafsky, D., Martin J. H. (2024). Qaiser, S., & Ali, R. (2018). Text mining: use of TF-IDF to examine the relevance of words to documents. <i>International Journal of Computer Applications</i>, 181(1), 25-29. 	Assignment & Data Analysis #1
5	Text Vectorization Part 2: Embedding Methods	<ul style="list-style-type: none"> Chapter 6 of Jurafsky, D., Martin J. H. (2024). Li, Y., & Yang, T. (2018). Word embedding for understanding natural language: a survey. <i>Guide to big data applications</i>, 83104. 	
6	Text Vectorization Part 3: Computational Linguistic Tools	<ul style="list-style-type: none"> François, T., & Miltakaki, E. (2012, June). Do NLP and machine learning improve traditional readability formulas?. In <i>Proceedings of the First Workshop on Predicting and Improving Text Readability for target reader populations</i> (pp. 49-57). Lee, B. W., & Lee, J. H. J. (2023). LFTK: Handcrafted features in computational linguistics. <i>arXiv preprint arXiv:2305.15878</i>. Graesser, A. C., McNamara, D. S., Louwerse, M. M., & Cai, Z. (2004). Coh-Metrix: Analysis of text on cohesion and language. <i>Behavior research methods, instruments, & computers</i>, 36(2) 	
7	Statistical Language Model: N-gram Language Model	<ul style="list-style-type: none"> Chapter 7 of Jurafsky, D., Martin J. H. (2024). Contreras Kallens, P., Kristensen-McLachlan, R. D., & Christiansen, M. H. (2023). Large language models demonstrate the potential of statistical learning in language. <i>Cognitive Science</i>, 47(3), e13256. 	
8	Machine Learning Overview for Text Classification	<ul style="list-style-type: none"> Chapter 5 of Jurafsky, D., Martin J. H. (2024). Orrù, G., Monaro, M., Conversano, C., Gemignani, A., & Sartori, G. (2020). Machine learning in psychometrics and psychological research. <i>Frontiers in psychology</i>, 10, 2970. 	Assignment & Data Analysis #2
9	Generative Models and Algorithms for Text Classification	<ul style="list-style-type: none"> Chapter 4 of Jurafsky, D., Martin J. H. (2024). 	
10	Discriminative models and Algorithms for Text Classification	<ul style="list-style-type: none"> Chapter 7 of Jurafsky, D., Martin J. H. (2024). Lin, J., Tan, W., Du, L., Buntine, W., Lang, D., Gašević, D., & Chen, G. (2023). Enhancing educational dialogue act classification with discourse context and sample informativeness. <i>IEEE Transactions on Learning Technologies</i>. 	

11	Unsupervised Learning Algorithms: Text Clustering	<ul style="list-style-type: none"> Phoophuangpairroj, R., & Pipattarasakul, P. (2022). Preliminary Indicators of EFL Essay Writing for Teachers' Feedback Using Automatic Text Analysis. <i>International Journal of Educational Methodology</i>, 8(1), 55-68. Polyak, S. T., von Davier, A. A., & Peterschmidt, K. (2017). Computational psychometrics for the measurement of collaborative problem-solving skills. <i>Frontiers in psychology</i>, 8, 2029. 	
12	Unsupervised Learning Algorithms: Topic Modeling Approach	<ul style="list-style-type: none"> Buenano-Fernandez, D., Gonzalez, M., Gil, D., & Luján-Mora, S. (2020). Text mining of openended questions in selfassessment of university teachers: An LDA topic modeling approach. <i>Ieee Access</i>, 8, 35318-35330. Valkenburg, D., Rousseau, A. J., Geubbelmans, M., & Burzykowski, T. (2023). Unsupervised learning. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i>, 163(6), 877-882. 	Assignment & Data Analysis #3
13	Unsupervised Learning Algorithms: Text Summarization Approach	<ul style="list-style-type: none"> Wong, K. F., Wu, M., & Li, W. (2008, August). Extractive summarization using supervised and semi-supervised learning. In <i>Proceedings of the 22nd international conference on computational linguistics (Coling 2008)</i> (pp. 985-992). Özmantar, M. F., Gökdağ, K., Hangül, T., & Agaç, G. (2024). Research themes and trends in the field of teacher educators: A topic modelling study. <i>Teaching and Teacher Education</i>, 148, 104696. 	
14	Supervised and Unsupervised Algorithms: Chatbots, QAs and Information Retrieval	<ul style="list-style-type: none"> Chapters 14 & 15 of Jurafsky, D., Martin J. H. (2024). Ait Baha, T., El Hajji, M., Es-Saady, Y., & Fadili, H. (2024). The impact of educational chatbot on student learning experience. <i>Education and Information Technologies</i>, 29(8), 10153-10176. 	Research Project
15	Presentations		Project Presentations

COURSE AND UNIVERSITY POLICIES:

Attendance, Make-Up Exams and Assignments

Requirements for class attendance and make-up exams, assignments, and other work in the course are consistent with university policies. See [UF Academic Regulations and Policies for more information regarding the University Attendance Policies](https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/) (<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>)

COURSE ASSIGNMENTS:

The course will follow Team-Based Learning (<http://www.teambasedlearning.org/>) principles. Students are expected to read course materials associated with each class meeting in advance of the meeting. The assessments are based on targeting different levels of Bloom's taxonomy.

Assignment and Data analyses (20% each; 60% total)

Students will complete 3 team data analyses of datasets using Python and present results. The assignment also includes short constructed-response questions which require students to discuss with their team members to demonstrate their theoretical understanding of the conceptual elements.

Research Project 30%

Students will submit a final paper that can have at most two authors, which will follow the format of proposals for the Educational Data Mining (EDM) Conference. The research project will target the Application, Analysis, Synthesis and Evaluation levels of Bloom’s taxonomy. Students will pick one of the NLP topics introduced in the lecture and homework assignments to replicate or conduct the analysis using a new dataset. Students are expected to consult with the instructor in advance to identify the appropriate data sources, topic, and the analysis framework.

Research Project Presentation (10%)

Students will prepare a short conference presentation to introduce their research questions, methods, and preliminary findings. Students will demonstrate how they constructed and implemented the Python codes during the presentation

GRADING:

Assignment	Percentage of Final Grade
Assignments and Data Analyses (20% each)	60%
Research Project	30%
Research Project Presentations	10%
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 current UF grading policies for assigning grade points may be found at the [University grades and grading policies](https://catalog.ufl.edu/UGRD/academic-regulations/grades-gradingpolicies/) (<https://catalog.ufl.edu/UGRD/academic-regulations/grades-gradingpolicies/>) site.

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. See the “[Get Started With the DRC](https://disability.ufl.edu/students/get-started/)” webpage on the [Disability Resource Center site](https://disability.ufl.edu/students/get-started/) (<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

University of Florida students are bound by the Honor Pledge. On all work submitted for credit by a student, the following pledge is required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Student Honor Code and Conduct Code (Regulation 4.040) specifies a number of behaviors that are in violation of this code, as well as the process for reported allegations and sanctions. See the [UF Conduct Code website \(https://sccr.dso.ufl.edu/process/student-conduct-code/\)](https://sccr.dso.ufl.edu/process/student-conduct-code/) for more information. If you have any questions or concerns, please consult with the instructor.

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](#).

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, 352392-1575, 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 352-3921575 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. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.
- Academic Complaints: Office of the Ombuds; Visit the [Complaint Portal webpage](#) for more information.
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): View the [Student Compliant Procedure website](#) for more information.

This syllabus is subject to change at the discretion of the instructor.

Course|New for request 18439

Info

Request: EDH 6XXX Data Management and Quantitative Workflow in Education Research

Description of request: The Higher Education Administration program area is requesting that new course be established.

Submitter: Benjamin Skinner btskinner@coe.ufl.edu

Created: 6/25/2023 2:19:23 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:

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:

Data management and quantitative workflow in education research

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:

DataManage/QuantWorkflow EdRes

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:
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:
Students will learn the fundamentals of data management and quantitative research workflow in education research using common open-source tools. Topics include project organization, version control, data cleaning, data visualization, and performing exploratory data analyses. Students will also learn some special coding and/or data gathering techniques and, throughout the course, employ coding best-practices so that their workflow may be shared and easily reproduced.

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:

Currently enrolled in a doctoral-level degree program or with permission of the instructor.

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

- 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 required course will be taken the spring semester of the first year of study by students in the on-campus Ph.D. program in Higher Education Administration. It will serve as an elective for students in the online Ed.D. program in Higher Education Administration as well as other graduate level students in the College of Education.

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:

1. Understand the mechanics of applied quantitative research in education as demonstrated by their ability to:
 - clean/tidy/wrangle raw data into analysis-ready data
 - produce informative figures and tables
 - save and submit work through a modern version control system
2. Create a well-organized, fully-reproducible final report on an education-related topic of their choosing that combines data analysis with clear writing
3. Become proficient in the use of a number of tools useful for conducting applied quantitative research, including:
 - R w/ RStudio

- git w/ GitHub
- R Markdown

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

All necessary materials are online at edquant.github.io/edh7916 or can be downloaded from external sources. There are no required text books for the course. EDH 6XXX: Data Management and Quantitative Workflow in Education Research Spring 2023

RECOMMENDED

Students may find some of the following books / online resources helpful:

Chacon, S., & Straub, B. (2014). Pro git. Apress.

Healy, K. (2018). Data visualization: A practical introduction. Princeton University Press.

Wickham, H., & Grolemund, G. (2017). R for data science. O'Reilly Media.

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:

We will take lessons in order, but not necessarily complete them in the same week we start them. Instead, we'll go through them at them pace that best fits the course. Here are the topics we'll cover together (and their corresponding assignment number):

Lessons

1. Getting and installing required software
2. Introduction to RStudio (R, RMarkdown, git)
3. Computer file structure / Organizing a script and project directory
4. Data wrangling I: Enter the Tidyverse
5. Data wrangling II: Appending, joining, and reshaping data
6. Data visualization with ggplot2: Part I
7. Data visualization with ggplot2: Part II
8. Creating research reports with RMarkdown
9. Data wrangling III: Working with strings and dates
10. Functional programming
11. Data wrangling with base R
12. Data wrangling IV: A philosophy of data wrangling

Assignments are due before class in the week after we finish a lesson

ADDITIONAL LESSONS

In addition, we will have a number of self-directed lessons that each student can select among to work on during class time based on their research interests. These include:

- Inferential I: Correlations, t-tests, and weights
- Inferential II: Regression and prediction
- Interactive graphics
- Functional programming II
- High performance R with Rcpp
- Web scraping in R

- Introduction to mapping in R

FINAL PROJECT

Parts of the final project due are due a key points in the semester. These are due on the following weeks/dates:

Week 4 (1/31) Final project: proposal
Week 10 (3/14) SPRING BREAK
Week 11 (3/21) Final project: initial set of analyses
Week 15 (4/11) Final project: draft of final report
Week 16 (4/25) Presentations
FINALS (5/2) Final project: final report

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:

ASSIGNMENTS

Class participation (10%): We will use class time to work through lesson modules together. Students are expected to follow along with the presentation and run code on their own machine. Students are also expected to answer questions and work through example problems throughout the class session.

Problem sets (45%): Every lesson module will end with a set of questions that students must answer. Students can work together to solve the problem sets, but everyone must submit their own work and do their best to give accurate attribution for borrowed/repurposed code. In general, problem set answers will need to be submitted via GitHub a week after they are assigned. Credit will be given for sincere effort to answer the questions as demonstrated by submitted code.

Answer keys will be shared the week assignments are due. Students are expected to compare their answers to those found in the answer keys with the purpose of improving their coding practices. We may spend some part of class time going over answers as needed.

From time to time, there may be a few supplemental lessons that include supplemental assignments. Though these are not required, some students may find them useful. Please note that the supplemental assignments may be more difficult than the normal problem set assignments. Students may replace up to two (2) problem set submissions with submissions from the supplemental assignments.

Reproducible report(45%): Everyone must produce a 3-5 page report on a higher education topic of interest. The report should be a combination of writing, tables, and figures, have minimal citations (if any), and be fully reproducible with minimal effort. You must use data that is either publicly available or that can be shared with others (no IRB restrictions). Everyone will submit three preliminary assignments in addition to the final report as well as give a short final presentation at the end of the course. Each product is worth the following percentage of the final grade:

- Proposal (5%)
- Initial set of analyses (10%)
- Draft of final report (10%)
- Final report (15%)
- Presentation (5%)

FINAL PROJECT RUBRIC

There are five major areas to the final project:

1. Data Analysis
2. Graphical/Tabular Presentation
3. Written Description
4. Organization, Clarity, and Formatting
5. Coding

Data Analysis

1. A strong final project will have a data analysis that cleanly wrangles raw data into an analysis-ready data set; correctly performs all descriptive and statistical analyses necessary to answer the research question; and well presents the results. The analyses do not necessarily have to be complex, but they should represent the best reasonable approach.
2. An acceptable final project will have a data analysis that includes some some mistakes or inaccuracies in how the data are cleaned, analyses are run, and/or results are presented. The analyses may not be quite appropriate for the analytic task.
3. A weak final project data analysis will not correctly wrangle raw data into a clean data set, will not well describe relationships between predictors and the outcome, will not use appropriate analytic tools, and will not present results well or at all. In general, the analysis will be messy and unable to provide insights into the research questions/problems motivated in the report.

Graphical/Tabular Presentation

1. A strong final project will include nicely labeled, easy to understand graphics that describe exactly what is happening with the patterns in the data. The graphics may be simple or complex, but they clearly connect to the analysis (e.g. not just a figure for the sake of a figure). The response could include (but doesn't have to include) interactive graphics. A table or two may be included, but only sparingly and in a clear format.
2. An acceptable final project will include graphics, but these figures may not be easy to read, may not be sufficiently detailed, or may not represent the most appropriate way to show the relationships in the data. A table or two may be included, but not appropriately formatted or without a clear rationale for its inclusion (i.e. why a table and not a figure).
3. A weak final project will include graphics and/or tables that are poorly labeled and don't make much sense.

Written Description

1. A strong final project will include clear and concise written sections that are easily understandable by an interested layperson. Assume that your audience is your boss or a colleague—not me.
2. An acceptable final project will be written generally well, but technical details may be poorly described or not described at all, and sentences will be hard to follow.
3. A weak final project will be poorly written, with many mistakes regarding both the analysis and good writing practices.

Organization, Clarity, Formatting

1. A strong final project will have an .Rmd file that generates a very nicely formatted document, suitable for professional presentation. What kind of report would you want to give to a supervisor or have given to you? That's what I want back from you. The organization should be very clear and easy to understand.
2. An acceptable final project will have some formatting problems and may not look very nice.
3. A weak final project will include code chunks in the output, poor formatting, and in general will just be messy.

Coding

1. A strong final project will have code that can generate results from the raw data in an easy to understand way. The code will be commented and will run on my computer without my having to tweak it in any way. (NOTE: An easy test on your end is transfer your files to a new location with the appropriate directory structure and attempt to knit the document)
2. An acceptable final project will have code that is relatively clear, but that may not be commented in ways that make sense and that has some problems that require debugging on my end.
3. A weak final project will have code that is messy, hard to understand and not commented. It will not run on my computer, and cannot be easily debugged.

Instructor(s)

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

Response:

Benjamin Skinner, PhD

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 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>

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/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/>.

Response:

Yes

EDH 6XXX
DATA MANAGEMENT AND QUANTITATIVE WORKFLOW IN EDUCATION
RESEARCH

Instructor	Jue Wu, PhD
Office	2705A Norman Hall
Email	juewu@coe.ufl.edu
Phone	352.273.4318
Class Meeting Time	XXX
Class Location	XXX
Office Hours	XXX

COURSE DESCRIPTION

Education researchers have a wide variety of quantitative tools at their disposal. Yet as the number and sophistication of these tools grows, so too do expectations about the quality of final analyses. Furthermore, increasing scrutiny of non-replicable results demands that researchers follow a proper workflow to mitigate errors. In this course, students will learn the fundamentals of data management and quantitative research workflow in education research using common open-source tools. Topics include project organization, version control, data cleaning, data visualization, and performing exploratory data analyses. Students will also learn some special coding and/or data gathering techniques and, throughout the course, employ coding best-practices so that their workflow may be shared and easily reproduced.

COURSE OBJECTIVES

Students will:

1. Understand the mechanics of applied quantitative research in education as demonstrated by their ability to:
 - clean/tidy/wrangle raw data into analysis-ready data
 - produce informative figures and tables
 - save and submit work through a modern version control system
2. Create a well-organized, fully-reproducible final report on an education-related topic of their choosing that combines data analysis with clear writing
3. Become proficient in the use of a number of tools useful for conducting applied quantitative research, including:
 - R w/ RStudio
 - git w/ GitHub
 - R Markdown

TEXTS

REQUIRED

All necessary materials are online at edquant.github.io/edh7916 or can be downloaded from external sources. There are no required text books for the course.

RECOMMENDED

Students may find some of the following books / online resources helpful:

Chacon, S., & Straub, B. (2014). *Pro git*. Apress.

Healy, K. (2018). *Data visualization: A practical introduction*. Princeton University Press.

Wickham, H., & Grolemund, G. (2017). *R for data science*. O'Reilly Media.

REQUIRED TOOLS, SOFTWARE, AND REGISTRATIONS

Students will be expected to bring a laptop to class in order to participate. It does not matter whether the machine runs MacOS, Windows, or Linux; however, the student's machine and operating system need to be relatively up to date and in good running order. The computer should also be able to connect to UF's internet network during class. While students may use a borrowed or work computer, it will be more difficult to properly update and install necessary software on a machine for which the student does not have administrator privileges. If at all possible, students should plan to use a computer for which they have full administrative control (e.g., one that they own).

All software we will use for this course is freely available. Students need to download and install the following software on their machines:

- R: cran.r-project.org
- RStudio: rstudio.com
- git: git-scm.com

NOTE that if you have installed R or RStudio on your machine in the past, make sure that you have the most up-to-date version (new versions are released about once a quarter).

You'll also need a distribution of LaTeX. You have two options:

- **Recommended small install** [tinytex](https://tinytex.org) R package
- **Optional full install** latex-project.org

Students also need to sign up for a free GitHub account if they haven't already: github.com/join. Students should sign up using their University of Florida email address and request a Education discount at education.github.com/benefits.

ASSIGNMENTS

Class participation (10%): We will use class time to work through lesson modules together. Students are expected to follow along with the presentation and run code on their own machine. Students are also expected to answer questions and work through example problems throughout the class session.

Problem sets (45%): Every lesson module will end with a set of questions that students must answer. Students can work together to solve the problem sets, but everyone must submit their own work and do their best to give accurate attribution for borrowed/repurposed code. In general, problem set answers will need to be submitted via GitHub a week after they are assigned. Credit will be given for sincere effort to answer the questions as demonstrated by submitted code.

Answer keys will be shared the week assignments are due. Students are expected to compare their answers to those found in the answer keys with the purpose of improving their coding practices. We may spend some part of class time going over answers as needed.

From time to time, there may be a few supplemental lessons that include supplemental assignments. Though these are not required, some students may find them useful. Please note that the supplemental assignments may be more difficult than the normal problem set assignments. Students may replace up to two (2) problem set submissions with submissions from the supplemental assignments.

Reproducible report (45%): Everyone must produce a 3-5 page report on a higher education topic of interest. The report should be a combination of writing, tables, and figures, have minimal citations (if any), and be fully reproducible with minimal effort. Students must use data that is either publicly available or that can be shared with others (no IRB restrictions). Everyone will submit three preliminary assignments in addition to the final report as well as give a short final presentation at the end of the course. Each product is worth the following percentage of the final grade:

- Proposal (5%)
- Draft of final report (10%)
- Initial set of analyses (10%)
- Final report (15%)
- Presentation (5%)

GRADING

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>.

Grades are assigned in accordance with current UF grading policies, which may be found here: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.asp>

Final course grades will be assigned using the following scale:

A	93–100
A-	90–92
B+	88–89
B	83–87
B-	80–82
C+	78–79
C	73–77
C-	70–72
D+	68–69
D	63–67
D-	60–62
F	59 and lower

HONOR CODE

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 (<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 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.

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 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/>.

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.

SCHEDULE

Prior to the first meeting, please follow the directions at edquant.github.io/edh7916/software/ to download and install all relevant software. Contact me or the assigned TA (if one) prior to the start of the course if you encounter difficulties.

WEEKLY LESSONS AND ASSIGNMENTS

Over the course of the semester, we will take lessons in order, but not necessarily complete them in the same week we start them. Instead, we'll go through them at them pace that best fits the course. Here are the topics we'll cover together (and their corresponding assignment number):

Lessons	Assignments
Getting and installing required software (Week 1)	
Introduction to RStudio (Week 2)	1
Computer file structure / Organizing a script and project directory (Week 3)	2
Data wrangling I: Enter the Tidyverse (Weeks 4 and 5)	3
Data wrangling II: Appending, joining, and reshaping data (Week 6 and 7)	4
Data visualization with ggplot2: Part I (Week 8)	5
Data visualization with ggplot2: Part II (Week 9)	6

Creating research reports with RMarkdown (Week 10)	7
Data wrangling III: Working with strings and dates (Weeks 11 and 12)	8
Functional programming (Week 13)	9
Data wrangling with base R (Week 14)	10
Data wrangling IV: A philosophy of data wrangling (Week 15)	11

Assignments are due before class in the week after we finish a lesson

ADDITIONAL LESSONS

In addition, we will have some number of self-directed lessons (depending on the pace of the core course content) that each student can select among to work on during class time based on their research interests. These include:

- Inferential I: Correlations, t-tests, and weights
- Inferential II: Regression and prediction
- Data visualization with ggplot2 II
- Interactive graphics
- Functional programming II
- High performance R with Rcpp
- Web scraping in R
- Introduction to mapping in R

FINAL PROJECT

Along the way, you'll have parts of your final project due. These are due on the following weeks/dates:

Week due	Final project component due
Week 4	Final project: proposal
Week 10	SPRING BREAK
Week 11	Final project: initial set of analyses
Week 15	Final project: draft of final report
Week 16	Presentations
FINALS	Final project: final report

FINAL PROJECT RUBRIC

There are five major areas to the final project:

- 1. Data Analysis**
- 2. Graphical/Tabular Presentation**
- 3. Written Description**

4. Organization, Clarity, and Formatting

5. Coding

Data Analysis

1. A strong final project will have a data analysis that cleanly wrangles raw data into an analysis-ready data set; correctly performs all descriptive and statistical analyses necessary to answer the research question; and well presents the results. The analyses do not necessarily have to be complex, but they should represent the best reasonable approach.
2. An acceptable final project will have a data analysis that includes some mistakes or inaccuracies in how the data are cleaned, analyses are run, and/or results are presented. The analyses may not be quite appropriate for the analytic task.
3. A weak final project data analysis will not correctly wrangle raw data into a clean data set, will not well describe relationships between predictors and the outcome, will not use appropriate analytic tools, and will not present results well or at all. In general, the analysis will be messy and unable to provide insights into the research questions/problems motivated in the report.

Graphical/Tabular Presentation

1. A strong final project will include nicely labeled, easy to understand graphics that describe exactly what is happening with the patterns in the data. The graphics may be simple or complex, but they clearly connect to the analysis (e.g. not just a figure for the sake of a figure). The response could include (but doesn't have to include) interactive graphics. A table or two may be included, but only sparingly and in a clear format.
2. An acceptable final project will include graphics, but these figures may not be easy to read, may not be sufficiently detailed, or may not represent the most appropriate way to show the relationships in the data. A table or two may be included, but not appropriately formatted or without a clear rationale for its inclusion (i.e. why a table and not a figure).
3. A weak final project will include graphics and/or tables that are poorly labeled and don't make much sense.

Written Description

1. A strong final project will include clear and concise written sections that are easily understandable by an interested layperson. Assume that your audience is your boss or a colleague—not me.
2. An acceptable final project will be written generally well, but technical details may be poorly described or not described at all, and sentences will be hard to follow.
3. A weak final project will be poorly written, with many mistakes regarding both the analysis and good writing practices.

Organization, Clarity, Formatting

1. A strong final project will have an .Rmd file that generates a very nicely formatted document, suitable for professional presentation. What kind of report would you want to give to a supervisor or have given to you? That's what I want back from you. The organization should be very clear and easy to understand.

2. An acceptable final project will have some formatting problems and may not look very nice.
3. A weak final project will include code chunks in the output, poor formatting, and in general will just be messy.

Coding

1. A strong final project will have code that can generate results from the raw data in an easy to understand way. The code will be commented and will run on my computer without my having to tweak it in any way. (NOTE: An easy test on your end is transfer your files to a new location with the appropriate directory structure and attempt to knit the document)
2. An acceptable final project will have code that is relatively clear, but that may not be commented in ways that make sense and that has some problems that require debugging on my end.
3. A weak final project will have code that is messy, hard to understand and not commented. It will not run on my computer, and cannot be easily debugged.

Course|New for request 20098

Info

Request: FIN 6XXX Behavioral Finance
Description of request: New course request.
Submitter: Melissa Hale melissa.hale@ufl.edu
Created: 8/7/2024 12:37:01 PM
Form version: 5

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:
FIN

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:
Behavioral Finance

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:
Behavioral Finance

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:
Spring

Effective Year

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

Response:
2025

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:
2

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 <i>on average </i>throughout the duration of the course.

Response:
4

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 how psychological biases lead to poor financial decision making and how security market prices can be influenced by psychological bias. Also gives insights of how behavioral finance complements the traditional financial theory paradigms and sheds light on the behavior of asset prices, corporate finance, and investor behavior.

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:
FIN5437

Completing Prerequisites:

- Use "&" and "or" to conjoin multiple requirements; do not use 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:

- 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 a graduate elective for all business Masters programs that is offered in the last term of the graduate program. It builds on basic finance concepts from FIN 5437 and illustrates situations in which real world outcomes differ from theory.

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 an understanding of how psychology can lead to poor decisions by financial decision makers
- Understand how flawed decision making can impact price movements in security markets.
- Give students the insight to evaluate their own potential flawed decision making and how to address psychologically biased decisions of those they work with.
- Make students better positioned to understand and possibly exploit aberrations in market prices due to widespread investor biases.

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:

The course is taught through lectures, case studies, and some selected research articles, which I will make available. There is no required textbook, as there is not yet a suitable textbook available in this field. Here are several suggested books (again, 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:

- | | | |
|----|------|---------------------------------|
| 1 | 3/6 | Non-behavioral finance |
| 2 | 3/8 | Non-behavioral finance |
| 3 | 3/13 | Spring break |
| 4 | 3/15 | Spring break |
| 5 | 3/20 | Psychology |
| 6 | 3/22 | Psychology |
| 7 | 3/27 | Some motivating evidence |
| 8 | 3/29 | Some motivating evidence |
| 9 | 4/3 | Limits to arbitrage |
| 10 | 4/5 | Limits to arbitrage |
| 11 | 4/10 | Investor behavior |
| 12 | 4/12 | Investor behavior |
| 13 | 4/17 | Prescriptive Behavioral Finance |
| 14 | 4/19 | Behavioral corporate finance |
| 15 | 4/24 | Behavioral corporate finance |
| 16 | 4/26 | 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:

The most important thing for students to do in this course is to think about the materials we discuss in class and to ask themselves how they change their understanding of financial markets. Of course, these are some official requirements as well. The final grade will be determined as follows:

- 45% problem sets and case write-up
- 55% exam.

For the problem sets and case write-up, assignments are due by 11:59 pm on the denoted date, with a 20% penalty for each calendar day turned in late. Homework assignments will be submitted via Canvas.

The exam cannot be rescheduled except in cases of extreme hardship. In such a case, you should notify me in advance of the date of the exam.

Instructor(s)

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

Response:

Baolian Wang

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started 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.*

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< a href="https://gatorevals.aa.ufl.edu/students/">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/>.

Response:

Yes

FIN 6XXX – Behavioral Finance

Class Periods: Days of week, period, and corresponding time of day

Location: Classroom location

Academic Term: Spring 202x

Instructor:

Name: Prof. Baolian Wang

Email Address: baolian.wang@warrington.ufl.edu

Office Phone Number:

Office Hours: 9:35 am – 11:30 am Mondays and Wednesdays

Course Description

Explores how psychological biases lead to poor financial decision making and how security market prices can be influenced by psychological bias. Also gives insights of how behavioral finance complements the traditional financial theory paradigms and sheds light on the behavior of asset prices, corporate finance, and investor behavior.

Course Pre-Requisites / Co-Requisites

Requires FIN5437 or instructor permission.

Course Objectives

- Develop an understanding of how psychology can lead to poor decisions by financial decision makers
- Understand how flawed decision making can impact price movements in security markets.
- Give students the insight to evaluate their own potential flawed decision making and how to address psychologically biased decisions of those they work with.
- Make students better positioned to understand and possibly exploit aberrations in market prices due to widespread investor biases.

Required Textbooks and Software

The course is taught through lectures, case studies, and some selected research articles, which I will make available. There is no required textbook, as there is not yet a suitable textbook available in this field. Here are several suggested books (again, not required).

Recommended Materials

- Thaler, R. H., & Sunstein, C. R. (2021). *Nudge: The Final Edition*. Yale University Press.
- Thaler, R. H. (2016). *Misbehaving: The Making of Behavioral Economics*.
- Shiller, Robert (2015), *Irrational Exuberance*. Princeton University Press, 2015.
- Kahneman, D., 2011. *Thinking, Fast and Slow*. Macmillan. r

Course Schedule

The pace of the class is flexible. The schedule of classes listed below is intended to be a guideline rather than cast in stone.

Number	Date	Topic
1	3/6	Non-behavioral finance
2	3/8	Non-behavioral finance
3	3/13	Spring break
4	3/15	Spring break
5	3/20	Psychology
6	3/22	Psychology
7	3/27	Some motivating evidence
8	3/29	Some motivating evidence
9	4/3	Limits to arbitrage
10	4/5	Limits to arbitrage
11	4/10	Investor behavior
12	4/12	Investor behavior
13	4/17	Prescriptive Behavioral Finance
14	4/19	Behavioral corporate finance
15	4/24	Behavioral corporate finance
16	4/26	Exam

Attendance Policy, Class Expectations, and Make-Up Policy

I expect all students to be actively engaged in class. It is particularly important to be actively engaged on case study days. I expect all students to upload answers to the case study questions on Canvas. These will not be graded.

One way – outside of class – to improve your participation grade is to send me articles from the financial press and discuss how they relate to class. There are many good sources for financial news – Bloomberg has interesting newsletters that you can subscribe to here: <https://www.bloomberg.com/account/newsletters>.

Please bring your laptop or smartphone to class. They will be used for in-class discussions.

Exam make up policy: see below

Evaluation of Grades

The most important thing for students to do in this course is to think about the materials we discuss in class and to ask themselves how they change their understanding of financial markets. Of course, these are some official requirements as well. The final grade will be determined as follows:

- 45% problem sets and case write-up
- 55% exam.

For the problem sets and case write-up, assignments are due by 11:59 pm on the denoted date, with a 20% penalty for each calendar day turned in late. Homework assignments will be submitted via Canvas.

The exam cannot be rescheduled except in cases of extreme hardship. In such a case, you should notify me in advance of the date of the exam.

Grading Policy

All grade appeals must be made within one week of the return of the assignment. Grade appeals will not be permitted after this one-week deadline has passed.

Curve Grades: Suppose the average total score is z .

- a) If $z < 85$, then we add $(85 - z)$ to each student's total score.
- b) If $z \geq 85$, no adjustment.

Tentative Grade Allocation

Total ≥ 92	A
$89 \leq \text{Total} < 92$	A-
$84 \leq \text{Total} < 89$	B+
$80 \leq \text{Total} < 84$	B
$75 \leq \text{Total} < 80$	B-
$70 \leq \text{Total} < 75$	C+
$65 \leq \text{Total} < 70$	C
Total < 65	C- ~ F

We will not round the grades. If you get 92.00, you will get an A. If you get 91.99, you will get an A-.

- See more on UF grading policy here: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-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. 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/>

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

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|New for request 20135

Info

Request: FIN 6XXX Decentralized Finance Project
Description of request: New course request.

Submitter: Melissa Hale melissa.hale@ufl.edu
Created: 8/7/2024 12:34:36 PM
Form version: 5

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:
FIN

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:

Decentralized Finance Project

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:

Decentralized Finance Project

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 *<i>currently</i>* *<i>planned</i>* 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:
Spring

Effective Year

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

Response:
2026

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:
2

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:
4

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 work on a project in which student groups will formulate and present business proposals to be deployed on blockchain. To prepare students for constructing their proposals, course lectures will focus upon hurdles for blockchain businesses and solutions employed in practice to overcome those hurdles.

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:

Introduction to Blockchain and Cryptocurrencies FIN6XXX

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

- 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 be a required course in a new Masters of Finance and Technology program. The course will be taught in the last semester of the degree program. The course will also be available to masters students who have taken FIN6XXX Introduction to Blockchain and Cryptocurrencies and wish to learn more advanced applications of blockchain technology.

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 make students more comfortable and adept at interacting with a live blockchain
- Challenge students to use their knowledge of the blockchain to develop business models incorporating its use via a project exercise

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:

"Economics of Ethereum"

by K John, P Mueller, B Monnot, F Saleh and C Schwarz-Schilling

Journal of Corporate Finance, Invited.

"Smart Contracts and Decentralized Finance"

by K John, L Kogan and F Saleh

Annual Review of Financial Economics, Volume 15 (2023): 523-542.
"Decentralized Exchanges: Risks and Oversight."
by C Harvey, J Hasbrouck and F Saleh
Wharton Initiative on Financial Policy and Regulation Policy Paper.

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:

Unit 1: Introductory Material

Lecture 1: Introduction to Ethereum Blockchain

Lecture 2: [Exercise] Set Up Digital Wallet, Conduct Peer-to-Peer Transaction

Lecture 3: Introduction to Smart Contracts

Unit 2: Overcoming Technical Limitations of Blockchain

Lecture 4: Conditioning on External Information via Oracles

Lecture 5: Incorporating Stablecoins for Stable Value Transfers

Lecture 6: [Exercise] Mint and Transfer A Blockchain Token

Lecture 7: Incorporating Real World Assets via Non-Fungible Tokens

Lecture 8: [Exercise] Minting Non-Fungible Tokens

Unit 3: Overcoming Economic Limitations of Blockchain

Lecture 9: Excess Transaction Fees on Blockchain

Lecture 10: Rollups As A Method To Reduce Costs

Unit 4: Addressing Regulatory Concerns

Lecture 11: Proposer-Builder-Separation

Lecture 12: Decentralized Exchanges

Lecture 13: Novel Regulatory Challenges Due To Blockchain Setting

Lecture 14: Student 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:

Assignment Weight

Class Participation 30%

Smart Contract Project 70%

Instructor(s)

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

Response:

Fahad Saleh

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started with the Disability Resource Center](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.

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 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>

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.ua.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.ua.ufl.edu/public-results/>.

Response:
Yes

Decentralized Finance Project
FIN 677X
Spring 2026

Instructor: Professor Fahad Saleh, fahad.saleh@warrington.ufl.edu

Teaching Assistant: TBD

Office Hours: 3 hours weekly and by appointment

Course Description

Students work on a project in which student groups will formulate and present business proposals to be deployed on blockchain. To prepare students for constructing their proposals, course lectures will focus upon hurdles for blockchain businesses and solutions employed in practice to overcome those hurdles.

Course Objectives:

- To make students more comfortable and adept at interacting with a live blockchain
- Challenge students to use their knowledge of the blockchain to develop business models incorporating its use via a project exercise

Prerequisite:

Introduction to Blockchain and Cryptocurrencies FIN 6XXX

Materials for Course:

“Economics of Ethereum”

by K John, P Mueller, B Monnot, F Saleh and C Schwarz-Schilling
Journal of Corporate Finance, Invited.

“Smart Contracts and Decentralized Finance”

by K John, L Kogan and F Saleh
Annual Review of Financial Economics, Volume 15 (2023): 523-542.

“Decentralized Exchanges: Risks and Oversight.”

by C Harvey, J Hasbrouck and F Saleh
Wharton Initiative on Financial Policy and Regulation Policy Paper.

Course Topics

Unit 1: Introductory Material

Lecture 1: Introduction to Ethereum Blockchain

Lecture 2: [Exercise] Set Up Digital Wallet, Conduct Peer-to-Peer Transaction

Lecture 3: Introduction to Smart Contracts

Unit 2: Overcoming Technical Limitations of Blockchain

- Lecture 4: Conditioning on External Information via Oracles
- Lecture 5: Incorporating Stablecoins for Stable Value Transfers
- Lecture 6: [Exercise] Mint and Transfer A Blockchain Token
- Lecture 7: Incorporating Real World Assets via Non-Fungible Tokens
- Lecture 8: [Exercise] Minting Non-Fungible Tokens

Unit 3: Overcoming Economic Limitations of Blockchain

- Lecture 9: Excess Transaction Fees on Blockchain
- Lecture 10: Rollups As A Method To Reduce Costs

Unit 4: Addressing Regulatory Concerns

- Lecture 11: Proposer-Builder-Separation
- Lecture 12: Decentralized Exchanges
- Lecture 13: Novel Regulatory Challenges Due To Blockchain Setting
- Lecture 14: Student Presentations

Grade Assessment Policy

- Assignment Weight
- Class Participation 30%
- Smart Contract Project 70%

Grading

General Policies: For specific information regarding University of Florida grading policies, please refer to See more on UF grading policy here: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Tentative Grade Scale:

Score	Grade
Total \geq 92	A
88 \leq Total < 92	A-
84 \leq Total < 88	B+
80 \leq Total < 84	B
75 \leq Total < 80	B-
70 \leq Total < 75	C+
65 \leq Total < 70	C
Total < 65	C- ~ F

Class Participation and Attendance

Class participation will be based mainly on student engagement with in-class exercises. These exercises will involve interaction with a blockchain so that participation can be corroborated with evidence directly from the blockchain. In more detail, students will be shown how to read from a website that displays blockchain activity (see <https://etherscan.io/>) and will be required to provide a URL from that interface to corroborate participation. Tasks will include setting up a digital wallet, conduct a peer-to-peer payment, acquiring and transferring a blockchain token and minting non-fungible tokens.

Decentralized Finance Project

Student groups will be required to propose a business idea to be implemented via smart contracts on the Ethereum blockchain. Each group must submit a white paper supporting its business proposal and also present its proposal in the last week of class. The white paper and presentation must answer the following questions regarding the business idea:

- 1.) Who is/ are your target demographic(s)?
- 2.) What is the closest existing competitor to your idea?
- 3.) Given the competitors, why would your target demographic prefer your business?
- 4.) What are the advantages of blockchain technology that your idea leverages?
 - Does transparency of business logic help your business idea? If so, explain which specific Does transparency of business logic help your business idea?
If so, explain which specific business policies you would make transparent and how you would make them transparent.
 - Is commitment to particular business logic important for your business idea?
If so, explain which specific business policies you would commit to using smart contract technology and how you would credibly commit.
- 5.) What are the disadvantages of blockchain technology that limit the success of your idea?
 - Is there a need/ desire for your business idea to involve stable payments through the blockchain?
If so, how do you overcome this problem? If not, could there be the need for stable payments in the future and how would that affect the growth of your business?
 - Is there a need/ desire to incorporate external information to business logic?
If so, how does that limit your ability to implement business logic through smart contracts and how would that affect the growth of your business?
 - Is there a need/ desire to incorporate physical objects?
If so, how does that limit your ability to implement business logic through smart contracts and how would that affect the growth of your business?
- 6.) How do you address the excess transaction fee costs?
- 7.) How will the regulatory environment (current and prospective) affect your business?

Groups are encouraged to base their proposals on existing ideas by proposing improvements on promising existing ideas. For a list of prominent ideas in the area of DeFi, students may consult www.defillama.com

University of Florida Code of Student Conduct:

The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XI of the Student Conduct Code. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017).

Cheating

The improper taking or tendering of any information or material which shall be used to determine academic credit. Taking of information includes, but is not limited to, copying graded homework assignments from another student; working together with another individual(s) on a take-home test or homework when not specifically permitted by the teacher; looking or attempting to look at another student's paper during an examination; looking or attempting to look at text or notes during an examination when not permitted. The tendering of information includes, but is not limited to, giving of your work to another student to be used or copied; giving someone answers to exam questions either when the exam is being given or after taking an exam; giving or selling a term paper or other written materials to another student; sharing information on a graded assignment.

Plagiarism

The attempt to represent the work of another as the product of one's own thought, whether the work is published or unpublished, or simply the work of a fellow student. Plagiarism includes, but is not limited to, quoting oral or written materials without citation on an exam, term paper, homework, or other written materials or oral presentations for an academic requirement; submitting a paper which was purchased from a term paper service as your own work; submitting anyone else's paper as your own work.

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.

Student Accommodations:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started 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. 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/>

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

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|New for request 20100

Info

Request: FIN 6XXX Financial Intermediation, Financial Services and Technology

Description of request: New course request.

Submitter: Kathryn Pearce kathryn.pearce@warrington.ufl.edu

Created: 8/7/2024 11:20:27 AM

Form version: 5

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:

FIN

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:

Financial Intermediation, Financial Services and Technology

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:

Fin Intermed, Fin Svcs & Tech

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:
2025

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:
2

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:
4

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:
An in-depth exploration of the theory and practice of financial intermediation is provided. An emphasis is on a comprehensive understanding of the role of financial intermediaries, their function in various financial markets, the services they provide, and the regulatory framework that governs these institutions. Special attention is given to how technology has revolutionized the landscape of financial intermediation, giving rise to innovative products and services.

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:
FIN5439

Completing Prerequisites:

- Use "&" and "or" to conjoin multiple requirements; do not use 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:

- 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 is viewed as a course early in the new Masters of Finance & Technology being developed. It frequents students with the issues relating to technology and financial services delivered by financial intermediaries. The course is also available for Masters level students after completion of introductory level Finance classes at the graduate level.

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 an understanding of the role of intermediaries and the types of problems that intermediaries must overcome or mitigate to be successful.
- Understand the attributes of financial intermediaries that could make incumbents susceptible to disruption by technology.
- Demonstrate how intermediaries manage risk.
- Understand the regulatory challenges faced by intermediaries in different market segments especially given the emergence of new financial technologies.

- Regulations
- Why Should Financial Institutions be Regulated?
- Limits of Regulations
- Bank Regulators, Securities and Exchange Commission
- Basel Accords, Dodd-Frank Act, Glass Steagall Act Lecture 11
- Regulations in the FinTech Era
- AI and Discrimination
- Privacy and Consumer Protection
- Cybersecurity Lecture 12
- Group presentation for the Project Lecture 13

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:

General Policies: For specific information regarding University of Florida grading policies, please refer to the undergraduate catalogue webpage:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

Tentative Grade Scale:

Score	Grade
Total >= 92	A
88<=Total < 92	A-
84<=Total < 88	B+
80<=Total < 84	B
75<=Total < 80	B-
70<=Total < 75	C+
65<=Total < 70	C
Total < 65	C- ~ F

Exams: We will have an in-class final exam. The exam will likely be a combination of multiple-choice, short answer, and written problems. Lecture notes, in-class examples and discussions, practice problems and homework should serve as good exam preparation tools. This is a closed-book exam. I will provide you with a “formula sheet” during the exam.

Grade Breakdown:

Item	Weight	Comment
Case	10%	Group Work
Project	20%	Group Work
Exam	50%	
Class Participation	10%	
Homework	10%	Each HW will be weighted equally

Re-Grading Policy: If you disagree with an exam/homework grade, please write a short explanation (or justification) of your concern. If you present me with the exam/homework assignment and your explanation during the seven calendar days following the day I return the material in class, I will re-grade the entire submission taking your comments into consideration.

Please understand, I will re-grade the entire exam/homework assignment in question and the resulting grade may increase, stay the same, or even decrease. The result of the re-grade is the final grade and will be accepted as such by the student as part of my agreement to the re-grade in the first place. Under no circumstance will re-grading be considered outside the seven-day window.

Instructor(s)

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

Response:
Nitish Kumar

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started 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.*

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/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/>.

Response:

Yes

**University of Florida
Warrington College of Business**

Financial Intermediation, Financial Services, and Technology

Fall 2025

Course:	FIN 6XXX
Section:	XXX
Lecture Time:	TBD
Textbook:	<i>Financial Institutions Management: A Risk Management Approach</i> , Saunders, Cornett, and Erhemjants, 11 th Edition, McGraw-Hill/Irwin, 2024 (ISBN: 978-1-264-41304-1) - Recommended
Instructor:	Nitish Kumar
Office Location:	Stuzin Hall 312
Office Hours:	Tuesday: 4:30 p.m. – 5:30 p.m. (or by appointment)
Office Telephone:	352-392-0115
Email:	nitish.kumar@warrington.ufl.edu

Course Description

An in-depth exploration of the theory and practice of financial intermediation is provided. An emphasis is on a comprehensive understanding of the role of financial intermediaries, their function in various financial markets, the services they provide, and the regulatory framework that governs these institutions. Special attention is given to how technology has revolutionized the landscape of financial intermediation, giving rise to innovative products and services.

Course Objectives

- Develop an understanding of the role of intermediaries and the types of problems that intermediaries must overcome or mitigate to be successful.
- Understand the attributes of financial intermediaries that could make incumbents susceptible to disruption by technology.
- Demonstrate how intermediaries manage risk.
- Understand the regulatory challenges faced by intermediaries in different market segments especially given the emergence of new financial technologies.

Course Prerequisites

Materials Required:

Textbook

The recommended text for the course is Saunders, Cornett, and Erhemjamts, *Financial Institutions Management: A Risk Management Approach*, 11th Edition, McGraw-Hill/Irwin, 2024. I will be using the text as a rough guide for the lectures. I will also assign some practice problems from the text book. These will be posted on the course E-Learning website.

Class Notes

I will make class notes available via the course E-Learning website. These will be posted well in advance of class lectures. Students are required to review the lecture slides and other reading materials before class. Our live class will build upon the lecture slides with the assumption that students have reviewed the materials posted. Note that the slides will not be comprehensive. My intent is to provide you with something that will help you follow the lecture and focus on the important material of this class. I will be using the whiteboard most of the time, so there will be a lot of things discussed in class that will not show up on the lecture slides but will still be tested within the exam. There will also be things on the notes that I may not cover in class.

Supplemental Readings will be posted on the course E-learning website. These will include media articles, academic papers, regulatory documents, and case studies. Students are expected to have read all supplementary materials.

Course outline

Topic	
<ul style="list-style-type: none">• Introduction to Financial Intermediation<ul style="list-style-type: none">- What is Financial Intermediation?- Why are Financial Intermediaries Special?- Technology in Financial Intermediation	Lecture 1
<ul style="list-style-type: none">• Banking and Deposit Institutions<ul style="list-style-type: none">- What do Banks Do?- Delegated Monitoring	Lecture 2
<ul style="list-style-type: none">• Banking and Deposit Institutions<ul style="list-style-type: none">- Liquidity Transformation- Maturity Transformation and Bank Runs	Lecture 3
<ul style="list-style-type: none">• Types of Banking Institutions<ul style="list-style-type: none">- Commercial Banks- Savings and Loans Associations- Credit Unions- Technology in Traditional Banking	Lecture 4

<ul style="list-style-type: none"> • Risk Management in Banks <ul style="list-style-type: none"> - Credit Risk - Interest Rate Risk - Liquidity and Market Risks 	Lecture 5
<ul style="list-style-type: none"> • FinTech in Banking <ul style="list-style-type: none"> - Big Data and AI in Credit Assessment - Peer-to-peer Lending - Case Study: “Lending Club” 	Lecture 6
<ul style="list-style-type: none"> • Non-Bank Financial Intermediaries <ul style="list-style-type: none"> - Insurance Companies - Mutual Funds - Hedge Funds and Private Equity 	Lecture 7
<ul style="list-style-type: none"> • Financial Engineering <ul style="list-style-type: none"> - Loan Sales and Securitization - Derivatives - Structured Products 	Lecture 8
<ul style="list-style-type: none"> • Risk Management Revisited <ul style="list-style-type: none"> - Value at Risk - Hedging - Risk Management vs. Regulatory Arbitrage - Case Study: “A Chairman's Decision: Launching A Robo-Advisor in CCB Principal Asset Management Company” 	Lecture 9
<ul style="list-style-type: none"> • Capital Markets <ul style="list-style-type: none"> - Stock Markets and Exchanges - Bond Markets and OTC - Money Markets - How is Technology Changing Capital Markets? 	Lecture 10
<ul style="list-style-type: none"> • Regulations <ul style="list-style-type: none"> - Why Should Financial Institutions be Regulated? - Limits of Regulations - Bank Regulators, Securities and Exchange Commission - Basel Accords, Dodd-Franck Act, Glass Steagall Act 	Lecture 11
<ul style="list-style-type: none"> • Regulations in the FinTech Era <ul style="list-style-type: none"> - AI and Discrimination - Privacy and Consumer Protection - Cybersecurity 	Lecture 12
<ul style="list-style-type: none"> • Group presentation for the Project 	Lecture 13

Class Attendance

Class attendance is required, and constitutes a significant portion of your Class Participation grade. **I will take in-class attendance from time to time.**

Materials presented in class are a blend of the topics covered in the textbook, lecture notes, and other sources; replicating what has been covered in class will be very difficult without regular attendance. Regular presence in the classroom will have a significant impact on your chances to succeed in this class. If you miss a lecture, you need to be in contact with a classmate and both ask for a copy of the class notes and inquire about what transpired in class.

Student Accommodations:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started 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.

Homework: There will be homework assigned throughout the semester.

Group Project: There will be a group project in this course. Students will form groups of up to four to work together on the project. More details will be provided in the class.

University of Florida Code of Student Conduct:

The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XI of the Student Conduct Code. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017).

Cheating

The improper taking or tendering of any information or material which shall be used to determine academic credit. Taking of information includes, but is not limited to, copying graded homework assignments from another student; working together with another individual(s) on a take-home test or homework when not specifically permitted by the teacher; looking or attempting to look at another student's paper during an examination; looking or attempting to look at text or notes during an examination when not permitted. The tendering of information includes, but is not limited to, giving of your work to another student to be used or copied; giving someone answers to exam questions either when the exam is being given or after taking an exam; giving or selling a term paper or other written materials to another student; sharing information on a graded assignment.

Plagiarism

The attempt to represent the work of another as the product of one's own thought, whether the work is published or unpublished, or simply the work of a fellow student. Plagiarism includes, but is not limited to, quoting oral or written materials without citation on an exam, term paper, homework, or other written

materials or oral presentations for an academic requirement; submitting a paper which was purchased from a term paper service as your own work; submitting anyone else's paper as your own work.

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.

Grading

General Policies: For specific information regarding University of Florida grading policies, please refer to See more on UF grading policy here: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Tentative Grade Scale:

Score	Grade
Total \geq 92	A
88 \leq Total < 92	A-
84 \leq Total < 88	B+
80 \leq Total < 84	B
75 \leq Total < 80	B-
70 \leq Total < 75	C+

65 ≤ Total < 70	C
Total < 65	C- ~ F

Exams: We will have an in-class final exam. The exam will likely be a combination of multiple-choice, short answer, and written problems. Lecture notes, in-class examples and discussions, practice problems and homework should serve as good exam preparation tools. This is a closed-book exam. I will provide you with a “formula sheet” during the exam.

Grading Breakdown:

Item	Weight	Comment
Case	10%	Group Work
Project	20%	Group Work
Exam	50%	
Class Participation	10%	
Homework	10%	Each HW will be weighted equally

Re-Grading Policy: If you disagree with an exam/homework grade, please write a short explanation (or justification) of your concern. If you present me with the exam/homework assignment and your explanation during the seven *calendar* days following the day I return the material in class, I will re-grade the entire submission taking your comments into consideration. Please understand, I will re-grade the entire exam/homework assignment in question and the resulting grade may increase, stay the same, or even decrease. The result of the re-grade is the final grade and will be accepted as such by the student as part of my agreement to the re-grade in the first place. Under no circumstance will re-grading be considered outside the seven-day window.

Course Website

The course’s E-Learning website will be the primary tool for course communication outside of the classroom. The website will contain important reference information such as schedules, practice problems, lecture notes, and announcements. In certain instances I may also use the class email list for important communications.

Contacting the Instructor

Oftentimes, the best time to get a quick answer to a course related question is to catch me immediately before or after class, or during a break. If that doesn't work for you, or if you have a question that you feel will take more time to discuss, please try to attend my regular office hours. If you are unable to make my office hours, we can arrange an appointment. Email is generally the best way to contact me and I will try to check my email often, even when not in the office.

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/>

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

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|New for request 20237

Info

Request: FIN 6XXX Financial Modeling for Investments

Description of request: New course request.

Submitter: Kathryn Pearce kathryn.pearce@warrington.ufl.edu

Created: 8/9/2024 10:05:49 AM

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:

FIN

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:
Financial Modeling for Investments

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:
FinMod for Investments

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:
2

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 <i>on average </i>throughout the duration of the course.

Response:
4

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:
Utilizes excel, Python and some basic R programming for important value creating financial activities such as securities modeling, portfolio optimization, value at risk analysis, and gathering/processing financial data. Hands on applications are emphasized.

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:
Masters of Science in Finance students

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

- 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:

Course is used in Masters of Science in Finance program as a required elective course (currently under FIN6930) to introduce students to using excel, R, and Python tools in investment analysis. It will also be used as a required course in the Masters of Science in Finance & Technology program for basic AI applications to common applications in the investment area.

Course Objectives

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

Response:

At the conclusion of the course, students are expected to:

- Develop a good understanding of supervised machine learning, unsupervised machine learning and text analysis.
- Apply modeling techniques to solve financial problems
- Learn to make use of high-level programming languages, such as R or Python to employ machine learning algorithms.
- Gain competitive advantages in a data-centric world.
- Have a good sense of the pitfalls and limitations of machine learning tools in the context of finance.

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:

Recommended:

- Simon Benninga, "Financial Modeling," Fourth Edition, MIT Press.
- Bodie, Kane, and Marcus, "Investments," 12th Edition, McGraw Hill.

Suggested:

- "Machine Learning in Business: An Introduction to the World of Data Science," (3rd Edition) by John C Hull, 2019, ISBN-13: 979-8508489441
- Interpretable Machine Learning, <https://christophm.github.io/interpretable-ml-book/>
- R for Data Science (2e), <https://r4ds.hadley.nz/>
- Python Machine Learning for Beginners, AI Publishing

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 Financial Modeling, Python, R

Week 2

Estimating betas and the Security market Line

Week 3

Portfolio Models

Week 3

Overview of Machine Learning: Supervised Machine Learning

Week 4

Overview of Machine Learning: Factor Models and Unsupervised Machine Learning

Week 5

Value at risk

Week 6

Overview of Machine Learning: Text 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:

Participation (20% of course grade)

oAttendance is expected in all lecture and lab sessions. Students' participation will be evaluated based on the involvement of in-class exercises and discussions. Participation is important since not only does it aid in learning the material presented, but also helps students refine communication skills. Thus, as a member of this class, students are expected to attend all class sessions, come prepared for each class session including having read the assigned reading, and consistently participate in class discussions and activities.

•Assignments (30% of course grade)

oAssignments will be graded by three criteria: replicability (others should get the same result with your code without errors), accuracy (getting the right answer) and readability (the code is written well with proper comments, code is without unnecessary codes so that your supervisor will not need to spend extra time to examine what you had gone through). You can freely discuss with your classmates, but each assignment should be submitted individually to Canvas. No late assignments will be accepted. Depending on the size of the class, the instructor may make it as team assignments after the add/drop period. In this case, each student will be asked to submit their team-peer evaluation anonymously at the end of the semester. If someone is found not to be contributing to the project, a discount (e.g., a multiple of 0.8) will kick in for that person. Do not free ride.

- Midterm Exam (10% of the grade)
oProbably in interview format, or as a take home exam.
- Final Team Project (40% of course grade)
oThe final project problems will be available ten days before the deadline. You can also develop interesting ideas related to the job fields you are interested in. Once you pick the project, you will have an opportunity to discuss with the instructor the overall direction and contents of the project.

Instructor(s)

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

Response:
Alejandro Lopez-Lira

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started 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.*

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 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*

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/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/>.

Response:

Yes

FIN6XXX – Financial Modeling for Investments

Syllabus

Instructor	Alejandro Lopez-Lira
Textbook(s):	Textbooks: Recommended: <ul style="list-style-type: none">• Simon Benninga, “Financial Modeling,” Fourth Edition, MIT Press.• Bodie, Kane, and Marcus, “Investments,” 12th Edition, McGraw Hill. Suggested: <ul style="list-style-type: none">• “Machine Learning in Business: An Introduction to the World of Data Science,” (3rd Edition) by John C Hull, 2019, ISBN-13: 979-8508489441• Interpretable Machine Learning, https://christophm.github.io/interpretable-ml-book/• R for Data Science (2e), https://r4ds.hadley.nz/• Python Machine Learning for Beginners, AI Publishing
Contact Information	E-mail: alejandrolopezlira@warrington.ufl.edu Office Hours: TBD or by appointment
Classroom/Time	TBD

Course Description

Utilizes excel, Python and some basic R programming for important value creating financial activities such as securities modeling, portfolio optimization, value at risk analysis, and gathering/processing financial data. Hands on applications are emphasized.

Course Objectives & Learning Outcomes

At the conclusion of the course, students are expected to:

- Develop a good understanding of supervised machine learning, unsupervised machine learning and text analysis.
- Apply modeling techniques to solve financial problems
- Learn to make use of high-level programming languages, such as R or Python to employ machine learning algorithms.
- Gain competitive advantages in a data-centric world.
- Have a good sense of the pitfalls and limitations of machine learning tools in the context of finance.

Pre-requisites

Basic knowledge of Excel and Financial calculator is required. Any experience with Python, R, or other programming languages is a plus. It will be assumed that most students have introductory to intermediate skills in Excel and experience in financial calculators, and no experience with Python or R. If you have no experience with Excel, make sure to develop essential skills as early as possible. Please look at the resources at the end of the syllabus.

I will assume everyone has a solid understanding of the financial concepts covered in the course. The lecture will focus more on applications, and it will not discuss thorough details of financial concepts. Therefore, a steep learning curve is expected for students with weak backgrounds on those, and you should consider taking this course later if you are. However, it will not be too challenging if you are truly devoted. Your hard work is key to succeeding in the course, and I will be happy to help you by providing external resources and instructions outside of class.

Some classes we will code, so bringing a laptop is required for those classes.

Class Format

The class is structured in two parts: lectures and interactive lab sessions. In the lecture part, I will review the concepts of financial models and demonstrate the workflow in Python. In the interactive lab session, you will work on problems that mimic the steps I made or applying the basics. This will give you a hands-on experience. You are encouraged to ask me questions during the session. I will supervise and help when you encounter problems. I expect to use 60~70% of the total hours for lectures and the remaining for lab sessions. My goal is to give you tangible skills which would be applicable in a finance job, and more so than any other course you have ever taken.

How to be Successful in This Class

I highly recommend using some outside resources to learn some basic Python, as it will allow you to focus more on the course content. I will be teaching from the basics, but this is not a programming class, so we do not have the time to give the language proper treatment. In the past, students who started early with external Python and Excel resources performed well and got more applicable knowledge out of the class. Beyond the lectures, we will have interactive lab sessions where you can ask me questions and actively get help with the course material as you work on it. For the projects, you will need to build upon (directly or indirectly) what you have put together in the lab sessions. Practice problems will also be provided, and it is encouraged that you complete them before the projects. Start the projects early as there is considerable work involved. If you feel lost at any time, do not hesitate to contact me for additional help, as the material will continue to build on itself. You cannot afford to feel lost and do nothing and hope it will get better, it will only get worse as the course progresses.

Student Evaluation

- Participation (20% of course grade)
 - Attendance is expected in all lecture and lab sessions. Students' participation will be evaluated based on the involvement of in-class exercises and discussions. Participation is important since not only does it aid in learning the material presented, but also helps students refine communication skills. Thus, as a member of this class, students are expected to attend all class sessions, come prepared for each class session including having read the assigned reading, and consistently participate in class discussions and activities.
- Assignments (30% of course grade)
 - Assignments will be graded by three criteria: replicability (others should get the same result with your code without errors), accuracy (getting the right answer) and readability (the code is written well with proper comments, code is without unnecessary codes so that your supervisor will not need to spend extra time to examine what you had gone through). You can freely discuss with your classmates, but each assignment should be submitted individually to Canvas. No late assignments will be accepted. Depending on the size of the class, the instructor may make it as team assignments after the add/drop period. In this case, each student will be asked to submit their team-peer evaluation anonymously at the end of the semester. If someone is found not to be contributing to the project, a discount (e.g., a multiple of 0.8) will kick in for that person. Do not free ride.
- Midterm Exam (10% of the grade)
 - Probably in interview format, or as a take home exam.
- Final Team Project (40% of course grade)
 - The final project problems will be available ten days before the deadline. You can also develop interesting ideas related to the job fields you are interested in. Once you pick the project, you will have an opportunity to discuss with the instructor the overall direction and contents of the project.

Each group will have 20 minutes to discuss their project during the regular class time at some class.

- Evaluation criteria include technological competence (excel/python skills/R), accuracy (whether the approach to the problem is logical, and the execution is accurate), creativity (whether the idea is interesting/important), and aesthetics (document looks pleasing and professional). Python or R programming must be included as part of your analysis if not fully implemented, and if the python approach is too minimal it may adversely affect your score. Copying others' work will be considered a violation of the University's Code of Student Conduct. You can, however, discuss them with your classmates, so long as the final submission is entirely your own work.

Tentative Outline

Week 1	Introduction to Financial Modeling, Python, R
Week 2	Estimating betas and the Security market Line
Week 3	Portfolio Models
Week 3	Overview of Machine Learning: Supervised Machine Learning
Week 4	Overview of Machine Learning: Factor Models and Unsupervised Machine Learning
Week 5	Value at risk
Week 6	Overview of Machine Learning: Text Analysis

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance is required and will be monitored. Two or more unexcused absences will result in a penalty on the course grade. Students are expected to arrive no later than 10 minutes after the start of class. Excused absences must be consistent with university policies in the [Graduate Catalog](#) and require appropriate documentation. Additional information can be found in [Attendance Policies](#).

Grading Policy

<i>Percent</i>	<i>Grade</i>	<i>Grade Points</i>
90.0 - 100.0	A	4.00
87.0 - 89.9	A-	3.67

<i>Percent</i>	<i>Grade</i>	<i>Grade Points</i>
84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 79.9	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

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 behaviors in violation of this code and 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 at 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 regarding grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

COVID-19

It is anticipated that this course will start with COVID-19 restrictions lifted. However, if they are not, the University policies will apply.

Campus Resources:

Health and Wellness

<p>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.</p>
<p>Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.</p>
<p>Sexual Assault Recovery Services (SARS) Student Health Care Center, 392-1161.</p>
<p>University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.</p>

Academic Resources

<p>E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.</p>
<p>Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.</p>
<p>Library Support, Several ways to receive assistance with respect to using libraries or finding resources.</p>
<p>Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.</p>

[Writing Studio](#), 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and drafting papers.

[Student Complaints Campus](#)

[On-Line Students Complaints](#)

Course|New for request 20126

Info

Request: FIN 6XXX Introduction to Blockchain and Cryptocurrencies
Description of request: New course request.

Submitter: Melissa Hale melissa.hale@ufl.edu
Created: 8/7/2024 12:39:29 PM
Form version: 5

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:
FIN

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:

Introduction to Blockchain and Cryptocurrencies

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:

Intro to Blockchain & Crypto

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 *<i>currently</i>* *<i>planned</i>* 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:
2025

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:
2

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:
4

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 are introduced to the fundamental building blocks of blockchain technology and its applications in cryptocurrencies, stablecoins, decentralized finance (DeFi), and non-fungible tokens (NFTs).

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:

FIN 5437

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

- 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:

Taught as a required course in Masters of Finance and Technology. The course provides introductory material that can be applied in a subsequent course where students create their own decentralized finance projects. The course is also offered as an elective to students in other business school Masters programs for those wishing to get a base knowledge of blockchain and cryptocurrencies. Students are expected to have taken FIN5437 or have instructor/department permission based on prior knowledge.

Course Objectives

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

Response:

- Give students a base understanding of blockchain technology and its applications
- Introduce students how to create blockchain smart contracts
- Provide an overview of various cryptocurrencies and their usefulness (or lack thereof) and how these cryptocurrencies can be traded by students
- Allow students to learn how they can be a lender or a borrower using cryptocurrency platforms

- Give students insight on how cryptocurrency markets are currently regulated

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:

- Lecture notes (PowerPoint slides) are downloadable from the course e-learning website.
- Supplemental readings will be posted to the e-learning website.

The lecture notes are self-contained and there is no textbook for this course. Supplement readings include news articles from The Wall Street Journals, The Financial Times, Medium, CoinDesk, and Cointelegraph. Students should make every effort to read the assigned material before coming to class. This includes lecture notes, assigned cases, and news articles. We will discuss news articles that are relevant to the course and new developments as they occur in the corporate and financial communities.

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:

- Introduction to FinTech: Money and payment systems Lecture 1
- Blockchain technology and Bitcoin
 - Mechanics of the Bitcoin network
- Crypto exchanges and market manipulation Lecture 2
- Mining, attacks, and forks
 - Consensus mechanisms in mining
- The economics of mining pools Lecture 3
- Ethereum and smart contracts
 - Example of smart contracts
 - The Ethereum platform
- Other blockchains utilizing smart contracts Lecture 4
- Crypto ventures and token offerings
 - What is an initial coin offering (ICO)?
 - ICOs and smart contracts
 - Asymmetric information in ICOs and the wisdom of crowds
- Security tokens vs. utility tokens Lecture 5
- Stablecoins and CBDCs
 - The Diamond-Dybvig bank-run model
- The basics of stablecoins and CBDCs Lecture 6
- Centralized finance (CeFi) vs. DeFi
 - Problems with CeFi
- Decentralized exchanges (DEXs) and automated market making (AMM) Lecture 7
- Lending platforms
 - Crypto lending, arbitrage, and flash loans
- The basics of yield farming Lecture 8
- DAOs
 - What is a DAO?
- DAOs and the future of companies Lecture 9
- NFTs
 - The mechanics of NFTs
- A short history of NFTs Lecture 10
- Proof of stake and other consensus mechanisms
 - Proof of work vs. proof of stake
- Layer-2 solutions for Bitcoin and Ethereum Lecture 11

- Web3, legal issues, and fraud Lecture 12
- Group presentation of a DeFi project Lecture 13

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:

Class attendance and participation	10
Case report (group)	10
Case presentations	10
Problem sets	20
Examination	50
Total	100

Instructor(s)

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

Response:

Tao Li

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started with the Disability Resource Center](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.

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/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/>.

Response:

Yes

University of Florida
Warrington College of Business

Introduction to Blockchain and Cryptocurrencies FIN 6xxx

Instructor

Tao Li
308 Stuzin Hall
Tel: 352-392-6654
E-mail: Tao.Li@warrington.ufl.edu
Teaching Assistant: TBD

Office Hours: By appointment.

Prerequisites:

Fin5437 or permission of instructor

Course Description:

Students are introduced to the fundamental building blocks of blockchain technology and its applications in cryptocurrencies, stablecoins, decentralized finance (DeFi), and non-fungible tokens (NFTs).

Course Objectives

- **Give students a base understanding of blockchain technology and its applications**
- **Introduce students how to create blockchain smart contracts**
- **Provide an overview of various cryptocurrencies and their usefulness (or lack thereof) and how these cryptocurrencies can be traded by students**
- **Allow students to learn how they can be a lender or a borrower using cryptocurrency platforms**
- **Give students insight on how cryptocurrency markets are currently regulated**

Required Material

- *Lecture notes (PowerPoint slides)* are downloadable from the course e-learning website.
- *Supplemental readings* will be posted to the e-learning website.

The lecture notes are self-contained and there is no textbook for this course. Supplement readings include news articles from *The Wall Street Journals*, *The Financial Times*, *Medium*, *CoinDesk*, and *Cointelegraph*. Students should make every effort to read the assigned material

before coming to class. This includes lecture notes, assigned cases, and news articles. We will discuss news articles that are relevant to the course and new developments as they occur in the corporate and financial communities.

Course outline

Topic	
<ul style="list-style-type: none"> • Introduction to FinTech: Money and payment systems 	Lecture 1
<ul style="list-style-type: none"> • Blockchain technology and Bitcoin <ul style="list-style-type: none"> - Mechanics of the Bitcoin network - Crypto exchanges and market manipulation 	Lecture 2
<ul style="list-style-type: none"> • Mining, attacks, and forks <ul style="list-style-type: none"> - Consensus mechanisms in mining - The economics of mining pools 	Lecture 3
<ul style="list-style-type: none"> • Ethereum and smart contracts <ul style="list-style-type: none"> - Example of smart contracts - The Ethereum platform - Other blockchains utilizing smart contracts 	Lecture 4
<ul style="list-style-type: none"> • Crypto ventures and token offerings <ul style="list-style-type: none"> - What is an initial coin offering (ICO)? - ICOs and smart contracts - Asymmetric information in ICOs and the wisdom of crowds - Security tokens vs. utility tokens 	Lecture 5
<ul style="list-style-type: none"> • Stablecoins and CBDCs <ul style="list-style-type: none"> - The Diamond-Dybvig bank-run model - The basics of stablecoins and CBDCs 	Lecture 6
<ul style="list-style-type: none"> • Centralized finance (CeFi) vs. DeFi <ul style="list-style-type: none"> - Problems with CeFi - Decentralized exchanges (DEXs) and automated market making (AMM) 	Lecture 7
<ul style="list-style-type: none"> • Lending platforms <ul style="list-style-type: none"> - Crypto lending, arbitrage, and flash loans - The basics of yield farming 	Lecture 8
<ul style="list-style-type: none"> • DAOs <ul style="list-style-type: none"> - What is a DAO? - DAOs and the future of companies 	Lecture 9
<ul style="list-style-type: none"> • NFTs <ul style="list-style-type: none"> - The mechanics of NFTs - A short history of NFTs 	Lecture 10

<ul style="list-style-type: none"> • Proof of stake and other consensus mechanisms • Proof of work vs. proof of stake • Layer-2 solutions for Bitcoin and Ethereum 	Lecture 11
<ul style="list-style-type: none"> • Web3, legal issues, and fraud 	Lecture 12
<ul style="list-style-type: none"> • Group presentation of a DeFi project 	Lecture 13

Class Attendance and Participation

This course will be taught face-to-face. All students are expected to attend class in person. I expect that you will come on time to class and stay for the full lecture. However, I do understand that there are medical and other special circumstances that may cause you to miss all or part of a class. If you must arrive late, leave early, or miss a class, you should send me an e-mail prior to the start of class with an explanation. This will allow us to make arrangements that minimize disruptions to the class. Further, I view class attendance as a prerequisite to receiving help outside of class time. In other words, if you decide not to attend class (and do not have a valid reason), then you should not expect to receive extensive help outside of class from me or the teaching assistant.

Students are expected to be prepared for every class and participate in class discussions. Students should have thoroughly reviewed previous lecture notes and be willing to answer and ask questions during class. Sharing your expertise when relevant is good participation, as is asking questions that help other class members. Class participation can potentially have a big impact on your grade as I will use it to determine the final letter grade of students who are close to a grade cutoff.

Course Requirements

Group assignment

Early in the term, I will ask you to form among yourselves a group consisting of no more than five students. Each group will be asked to pick a DeFi platform at their own choice, for example, Uniswap, Aave, Compound, and Terra, and write a research report on it. In addition to submitting the write-up, each group is required to present their findings on a “DeFi Superday.” More information on the assignment will be given in class.

Each presenting group will play the role of a consultancy brought in to analyze a company’s business. The audience will play the role of the firm’s senior managers. The audience is expected to ask questions and interject their own opinions. At the end of each presentation, the audience will also be asked to evaluate each presenter based on content and style. This feedback will be shared anonymously with each presenting group.

Your grade for the case write-up can also incorporate a peer evaluation component. At the end

of class, each group member may be given an opportunity to evaluate the other group members. Since I cannot directly observe the interactions within your group, the peer evaluation component is intended to reward those students who are good team members.

Problem Sets

There will be two problem sets, which you will do individually. A hard copy should be turned in class. Late assignments will not be accepted.

Examination

We will have one in-class examination. The exam will comprise a series of short answer questions and multiple choice questions. It is a closed-book exam, but you are allowed to bring a calculator and a one-page (front and back) “cheat sheet,” on which you are free to write any formula that you feel is helpful. However, you are not permitted to write actual problems, or type or photocopy anything onto the cheat sheet, and you must turn your cheat sheet in after the exam.

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.

Grading

Your final course grade will be determined as follows

Class attendance and participation	10
Case report (group)	10
Case presentations	10
Problem sets	20
Examination	50
Total	100

Tentative Grade Allocation

- For more on UF grade policies see: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Score	Grade
Total \geq 92	A
88 \leq Total < 92	A-
84 \leq Total < 88	B+
80 \leq Total < 84	B
75 \leq Total < 80	B-
70 \leq Total < 75	C+
65 \leq Total < 70	C
Total < 65	C- ~ F

The following is from the University of Florida *Code of Student Conduct*:

The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XI of the Student Conduct Code. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017).

Cheating

The improper taking or tendering of any information or material which shall be used to determine academic credit. Taking of information includes, but is not limited to, copying graded homework assignments from another student; working together with another individual(s) on a take-home test or homework when not specifically permitted by the teacher; looking or attempting to look at another student's paper during an examination; looking or attempting to look at text or notes during an examination when not permitted. The tendering of information includes, but is not limited to, giving of your work to another student to be used or copied; giving someone answers to exam questions either when the exam is being given or after taking an exam; giving or selling a term paper or other written materials to another student; sharing information on a graded assignment.

Plagiarism

The attempt to represent the work of another as the product of one's own thought, whether the work is published or unpublished, or simply the work of a fellow student. Plagiarism includes, but is not limited to, quoting oral or written materials without citation on an exam, term paper, homework, or other written materials or oral presentations for an academic requirement; submitting a paper which was purchased from a term paper service as your own work; submitting anyone else's paper as your own work.

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.

So that there is no confusion, here are my expectations

1. Students are strongly encouraged to work with their classmates to study, work problems and cases, and prepare for classes and exams. The goal is to maximize your understanding of the material.
2. Students are expected to include only their own work on the exam. Students are expected to hand in a write-up for the case as a group and each group is expected to do its own independent work. Cheating, as defined above, will not be tolerated.
3. Students are expected to contribute fully to the team assignment. Therefore, it is not permissible, say, for a team to split the case write-up so that each member of the team only contributes to part of an assignment. Each student is expected to come to class prepared to discuss and present all of the assignment.
4. Plagiarism, as defined above, is not acceptable.

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. 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/>

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

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|New for request 20236

Info

Request: FIN 6XXX Natural Language Processing & Generative AI for Finance

Description of request: New course request.

Submitter: Kathryn Pearce kathryn.pearce@warrington.ufl.edu

Created: 8/9/2024 10:07:32 AM

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:

FIN

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:

Natural Language Processing & Generative AI for Finance

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:

Nat Lang Proc & Gen AI in Fin

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:
Spring

Effective Year

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

Response:
2025

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:
2

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:
4

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 learn the principles and applications of natural language processing (NLP) and generative AI in finance. The curriculum covers theoretical foundations and practical implementations in tasks like sentiment analysis, automated trading, risk assessment, fraud detection, and financial forecasting.

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:
FIN 6779

Completing Prerequisites:

- Use "&" and "or" to conjoin multiple requirements; do not use 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:

**

- *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:

Course will be used in the Masters of Finance and Technology sequence and will also be made available to existing Business Graduate School students who meet the prereqs. Course is essential for learning how to process text for finance applications and will be placed as a course in the final semester of a Masters of Finance and Technology 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:

- ? Students will gain hands-on experience by working with real-world financial datasets.
- ? Construct NLP and generative AI models to solve finance-specific problems.
- ? Explore core concepts and techniques in NLP, including tokenization, stemming, and lemmatization, tailored to analyze financial texts.
- ? Learn methods to process and interpret financial documents, such as earnings reports and SEC filings, using advanced text analytics.
- ? Develop skills to automatically extract relevant financial information like stock data, market indicators, and economic metrics from various textual sources.
- ? Apply sentiment analysis tools to gauge market sentiments and predict financial trends based on news articles and social media content.

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:

Natural Language Processing: A Textbook with Python Implementation, by Raymond S. T. Lee (ISBN:9781133945192), Springer 2020.

JOURNAL ARTICLES:

1. Gentzkow, M., Kelly, B. and Taddy, M. (2019) "Text as Data". Journal of Economic Literature, 57(3) 535-574.
2. Vicari, M. and Gaspari M. "Analysis of new sentiments using natural language processing and deep learning", AI & Society, 2021 36:931-937.
3. Arora A, Datta A, Ding V (2019) "Using news titles and financial features to predict intraday movements of the DJIA". Stanford Press.

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 ONE Introduction to Natural Language Processing LOS 1.1, 1.2, 1.3

Objective Understand the basics of human language and intelligence

Reading Chapter 1: Natural Language Processing

Workshop #1 Basics of NLP Toolkit (NLTK)

Quiz #1 Weekly Lecture and Chapter 1

WEEK TWO N-gram Language Models and Financial Applications

LOS 2.1, 2.2, 2.3

Objective Explore N-gram language models and their financial application

Reading Chapter 2: N-gram Language Model

Workshop #2 Generate N-gram statistics on financial reports and news articles with Quiz #2

Weekly Lecture and Chapter 2

WEEK THREE Part-of-Speech (POS) Tagging and Syntax for Financial Texts

LOS 3.1, 3.2, 3.3

Objective POS tagging and its application to financial news and statement analysis.

Reading Chapter 3 & 4: Part-of-Speech Tagging and Syntax for Financial Texts

Workshop #3 Implement POS tagging on earnings calls and analyst reports

Quiz #3 Weekly Lecture and Chapter 3 & 4

WEEK FOUR Semantic Analysis in Financial Contexts

LOS 4.1, 4.2, 4.3

Objective Apply semantic analysis to market sentiment analysis

Reading Chapter 5 & 6: Meaning Representation; Semantic Analysis

Workshop #4 Use spaCy for semantic analysis of market commentary and news

Quiz #4 Weekly Lecture and Chapter 5 and 6

WEEK FIVE Pragmatics and Sentiment Analysis for Market Prediction

LOS 5.1, 5.2, 5.3

Objective Apply sentiment analysis to social media data and financial blogs.

Reading Chapter 7: Pragmatic Analysis

Workshop #4 Implement text classification using TensorFlow and Keras.

Quiz #5 Weekly Lecture and Chapter 7

WEEK SIX Advanced NLP Techniques with Transformers & Gen AI

LOS 6.1, 6.2, 6.3

Objective Explore advanced NLP techniques to build financial forecasting models

Reading Chapter 8: Transfer Learning and Transformer Technology

Workshop #6 Implement BERT for analyzing financial news for predictive insights.

Quiz #6 Weekly Lecture and Chapter 8

WEEK SEVEN Capstone Project and Major NLP Applications

LOS 7.1, 7.2, 7.3

Objective Develop a capstone project focused on a real-world financial problem.

Reading Chapter 9: : Major Natural Language Processing Applications

Workshop #7 Apply NLP & Gen AI tools to create a market system solution.

Quiz #7 Weekly Lecture and Chapter 9

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:

The following describes the courses graded assignments and breakdown of point distribution and letter

grade criteria based on 1,000 total points.

For more on the University of Florida's grading policies see:

<https://catalog.ufl.edu/UGRD/academicregulations/grades-grading-policies/>.

? 300 points: Weekly Quizzes (30%)

? 300 points: Workshops (30%)

? 200 points: Final Capstone Project (20%) (Due the final week of the course)

? 200 points: Final Exam (20%) (Due the final week of the course)

Instructor(s)

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

Response:

David A Mascio

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click*

here to get started 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.

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/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/.

Response:
Yes

Natural Language Processing & Generative AI for Finance

The University of Florida
Finance, Insurance & Real Estate, Warrington College of Business
FIN6XXX, CRN XXXXX

Instructor:	Dr. David A Mascio	Class Location:	(Insert Building/Room)
Email:	david.mascio@warrington.ufl.edu	Class Day/Time:	(Insert Days/Time)
Office Hours:	(Insert Days/Time)	Office Phone:	352-392-0154
Office Location:	Stutzin Hall #303J	Term:	Spring 2025

COURSE DESCRIPTION

Students are introduced to the fundamental principles and the application of natural language processing (NLP) and generative artificial intelligence (AI) techniques in the field of finance. The course will delve into the theoretical foundations of NLP and generative models and discuss their practical implementation in finance-related tasks such as sentiment analysis, automated trading, risk assessment, fraud detection, and financial forecasting.

COURSE OBJECTIVES:

- Students will gain hands-on experience by working with real-world financial datasets.
- Construct NLP and generative AI models to solve finance-specific problems.
- Explore core concepts and techniques in NLP, including tokenization, stemming, and lemmatization, tailored to analyze financial texts.
- Learn methods to process and interpret financial documents, such as earnings reports and SEC filings, using advanced text analytics.
- Develop skills to automatically extract relevant financial information like stock data, market indicators, and economic metrics from various textual sources.
- Apply sentiment analysis tools to gauge market sentiments and predict financial trends based on news articles and social media content.

PREREQUISITE: FIN6779 - Artificial Intelligence and Machine Learning Applications for Finance and Fintech or the consent of instructor.

COURSE TEXTBOOK: *Natural Language Processing: A Textbook with Python Implementation*, by Raymond S. T. Lee (ISBN:9781133945192), Springer 2020.

JOURNAL ARTICLES:

1. Gentzkow, M., Kelly, B. and Taddy, M. (2019) "Text as Data". *Journal of Economic Literature*, 57(3) 535-574.
2. Vicari, M. and Gaspari M. "Analysis of new sentiments using natural language processing and deep learning", *AI & Society*, 2021 36:931-937.
3. Arora A, Datta A, Ding V (2019) "Using news titles and financial features to predict intraday movements of the DJIA". Stanford Press.

COMPUTING TOOLS AND APPLICATIONS

The following applications will be used during the course:

1. **Jupyter Notebooks:** are interactive web tools ideal for developing and presenting projects that involve programming, data visualization, and narrative text. They support live code execution, making them perfect for interactive tutorials, data manipulation, and visual analysis. In this course, Jupyter Notebooks will be used for executing Python scripts, visualizing data, and documenting the process and results of NLP analyses.
2. **Anaconda:** is a free and open-source distribution of Python and R programming languages for scientific computing. It simplifies package management and deployment and includes a large collection of pre-installed libraries and tools. Throughout this course, Anaconda will serve as the primary platform for managing Python environments and packages necessary for NLP tasks, ensuring compatibility and ease of setup for all students.
3. **Python:** is a versatile and widely used programming language known for its readability and vast ecosystem of libraries and frameworks, particularly in data science and machine learning. Python will be the main programming language used in this course for implementing NLP tasks. Libraries such as NLTK, spaCy, and TensorFlow, which are built on Python, will be extensively used to perform text processing, analysis, and machine learning.

LEARNING OUTCOME STATEMENTS

Upon successful completion of this course a student should be able to:

- **LOS 1.1:** Describe the foundational principles of human language and intelligence as they relate to linguistics.
- **LOS 1.2:** Demonstrate the ability to install and use NLTK for basic text processing tasks such as text tokenization and simple text analysis.
- **LOS 1.3:** Identify key NLP components and applications relevant to finance.
- **LOS 2.1:** Explain the theory and mechanics behind N-gram language models.
- **LOS 2.2:** Apply N-gram models to analyze the linguistic structure of financial documents and predict potential trends from historical data.
- **LOS 2.3:** Generate and interpret N-gram statistics from financial reports and news articles using NLTK.
- **LOS 3.1:** Understand and apply various POS tagging techniques to categorize words in financial texts accurately.
- **LOS 3.2:** Analyze and parse complex sentence structures found in financial reports using syntactic analysis techniques.
- **LOS 3.3:** Integrate syntactic parsing techniques into NLP tasks to enhance the clarity and accuracy of financial information extraction.
- **LOS 4.1:** Describe different semantic representation techniques and their relevance to semantic analysis in finance.
- **LOS 4.2:** Perform semantic analysis on financial texts to discern underlying meanings and implications using spaCy.
- **LOS 4.3:** Utilize semantic analysis to aid in the interpretation of market sentiment and investor communications.
- **LOS 5.1:** Explain how pragmatic factors influence the interpretation of financial discourse.
- **LOS 5.2:** Implement sentiment analysis on diverse data sources like social media and financial blogs to determine market sentiment.
- **LOS 5.3:** Use sentiment analysis results to inform financial predictions and trading strategies.
- **LOS 6.1:** Understand the architecture and functionality of Transformer models, including BERT.

- **LOS 6.2:** Apply Transformer models to financial datasets to extract insights and enhance forecasting accuracy.
- **LOS 6.3:** Evaluate the effectiveness of Transformer models in handling large-scale financial texts compared to traditional models.
- **LOS 7.1:** Integrate and apply NLP techniques learned throughout the course to solve a specific problem in finance.
- **LOS 7.2:** Critically assess the impact of NLP applications in finance, including chatbots, information retrieval, and automated advisory systems.
- **LOS 7.3:** Present a comprehensive capstone project that demonstrates an understanding of how NLP can address real-world financial challenges.

CLASS ATTENDANCE AND PARTICIPATION

This course will be taught face-to-face. All students are expected to attend class in person. I expect that you will come on time to class and stay for the full lecture. However, I do understand that there are medical and other special circumstances that may cause you to miss all or part of a class. If you must arrive late, leave early, or miss a class, you should send me an e-mail prior to the start of class with an explanation. This will allow us to make arrangements that minimize disruptions to the class. Further, I view class attendance as a prerequisite to receiving help outside of class time. In other words, if you decide not to attend class (and do not have a valid reason), then you should not expect to receive extensive help outside of class from me or the teaching assistant. Students are expected to be prepared for every class and participate in class discussions. Students should have thoroughly reviewed previous lecture notes and be willing to answer and ask questions during class. Sharing your expertise when relevant is good participation, as is asking questions that help other class members. Class participation can potentially have a big impact on your grade as I will use it to determine the final letter grade of students who are close to a grade cutoff.

IMPORTANT DATES

The instructor reserves the right to change the content of the course material if he perceives a need due to postponement of class caused by inclement weather, instructor illness, etc., or due to the pace of the course.

COURSE STRUCTURE:

WEEK ONE

	Introduction to Natural Language Processing
LOS	1.1, 1.2, 1.3
Objective	Understand the basics of human language and intelligence
Reading	Chapter 1: Natural Language Processing
Workshop #1	Basics of NLP Toolkit (NLTK)
Quiz #1	Weekly Lecture and Chapter 1

WEEK TWO

	N-gram Language Models and Financial Applications
LOS	2.1, 2.2, 2.3
Objective	Explore N-gram language models and their financial application
Reading	Chapter 2: N-gram Language Model
Workshop #2	Generate N-gram statistics on financial reports and news articles with
Quiz #2	Weekly Lecture and Chapter 2

WEEK THREE

	Part-of-Speech (POS) Tagging and Syntax for Financial Text
LOS	3.1, 3.2, 3.3
Objective	POS tagging and its application to financial news and statement analysis
Reading	Chapter 3 & 4: Part-of-Speech Tagging and Syntax for Financial Text
Workshop #3	Implement POS tagging on earnings calls and analyst reports
Quiz #3	Weekly Lecture and Chapter 3 & 4

WEEK FOUR

	Semantic Analysis in Financial Contexts
LOS	4.1, 4.2, 4.3
Objective	Apply semantic analysis to market sentiment analysis
Reading	Chapter 5 & 6: Meaning Representation; Semantic Analysis
Workshop #4	Use spaCy for semantic analysis of market commentary and news
Quiz #4	Weekly Lecture and Chapter 5 and 6

WEEK FIVE

	Pragmatics and Sentiment Analysis for Market Prediction
LOS	5.1, 5.2, 5.3
Objective	Apply sentiment analysis to social media data and financial blogs.
Reading	Chapter 7: Pragmatic Analysis
Workshop #4	Implement text classification using TensorFlow and Keras.
Quiz #5	Weekly Lecture and Chapter 7

WEEK SIX

	Advanced NLP Techniques with Transformers & Gen AI
LOS	6.1, 6.2, 6.3
Objective	Explore advanced NLP techniques to build financial forecasting models
Reading	Chapter 8: Transfer Learning and Transformer Technology
Workshop #6	Implement BERT for analyzing financial news for predictive insights
Quiz #6	Weekly Lecture and Chapter 8

WEEK SEVEN

	Capstone Project and Major NLP Applications
LOS	7.1, 7.2, 7.3
Objective	Develop a capstone project focused on a real-world financial problem
Reading	Chapter 9: : Major Natural Language Processing Applications
Workshop #7	Apply NLP & Gen AI tools to create a market system solution.
Quiz #7	Weekly Lecture and Chapter 9

GRADING AND EVALUATION

The following describes the courses graded assignments and breakdown of point distribution and letter grade criteria based on 1,000 total points.

For more on the University of Florida's grading policies see: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

- 300 points: Weekly Quizzes (30%)
- 300 points: Workshops (30%)
- 200 points: Final Capstone Project (20%) (Due the final week of the course)
- 200 points: Final Exam (20%) (Due the final week of the course)

LETTER GRADE BASED ON TOTAL POINTS EARNED

970 - 1000	—	A+
930 - 969	—	A
900 - 929	—	A-
870 - 899	—	B+
830 - 869	—	B
800 - 829	—	B-
770 - 799	—	C+
730 - 769	—	C
700 - 729	—	C-
670 - 699	—	D+
630 - 669	—	D

UNIVERSITY POLICIES ARE ON THE NEXT PAGE

THE UNIVERSITY OF FLORIDA CODE OF CONDUCT:

The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XI of the Student Conduct Code. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017).

CHEATING

The improper taking or tendering of any information or material which shall be used to determine academic credit. Taking of information includes, but is not limited to, copying graded homework assignments from another student; working together with another individual(s) on a take-home test or homework when not specifically permitted by the teacher; looking or attempting to look at another student's paper during an examination; looking or attempting to look at text or notes during an examination when not permitted. The tendering of information includes, but is not limited to, giving of your work to another student to be used or copied; giving someone answers to exam questions either when the exam is being given or after taking an exam; giving or selling a term paper or other written materials to another student; sharing information on a graded assignment.

PLAGIARISM

The attempt to represent the work of another as the product of one's own thought, whether the work is published or unpublished, or simply the work of a fellow student. Plagiarism includes, but is not limited to, quoting oral or written materials without citation on an exam, term paper, homework, or other written materials or oral presentations for an academic requirement; submitting a paper which was purchased from a term paper service as your own work; submitting anyone else's paper as your own work.

RECORDINGS

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.

EXPECTATIONS

1. Students are strongly encouraged to work with their classmates to study, work problems and cases, and prepare for classes and exams. The goal is to maximize your understanding of the material.
2. Students are expected to include only their own work on the exam. Students are expected to hand in a write-up for the case as a group and each group is expected to do its own independent work. Cheating, as defined above, will not be tolerated.
3. Students are expected to contribute fully to the team assignment. Therefore, it is not permissible, say, for a team to split the case write-up so that each member of the team only contributes to part of an assignment. Each student is expected to come to class prepared to discuss and present all of the assignment.

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 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/>.

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

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

1. 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.

2. Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.
3. Sexual Assault Recovery Services (SARS) Student Health Care Center, 392-1161.
4. University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

ACADEMIC RESOURCES

1. E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
2. Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.
3. Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.
4. Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
5. Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Course|New for request 20157

Info

Request: GLY 6XXX Survey of Geobiology and Astrobiology

Description of request: Request to add "Survey of Geobiology and Astrobiology" as a new joint undergraduate/graduate course at the 4000/6000 level in the Department of Geological Sciences. This request is for the graduate course.

Submitter: Amy Williams amywilliams1@ufl.edu

Created: 10/29/2024 2:18:24 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:

GLY

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:

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 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:

Survey of Geobiology and Astrobiology

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:

Geobiology and Astrobiology

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 *<i>currently</i>* *<i>planned</i>* 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](http://aa.ufl.edu/media/aaufledu/policies/Co-listed-grad-ug-courses-policy.pdf).*

Response:

This new course is requested at the 4000/6000 level. Syllabi for both courses is attached. The distinction between the UG and Grad course work will be in the final term paper requirement. Graduate students will be responsible for writing a final term paper that will assess their synthesis skills of the subject matter at a high level. This is stated in the syllabi.

Note: As requested by the CLAS Curr. Committee, a separate request for the 4000 level version of this course will be submitted.

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:

Survey of the parallel evolution of life and the environment. Chemical and physical processes in the atmosphere, hydrosphere, cryosphere and the solid earth influence life processes. In turn, life can influence chemical and physical processes on our planet. Explores the concept of life as a geological agent and examines the interaction between biology and the earth system during the roughly 4 billion years since life first appeared.

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:

Enrollment in a graduate program

Completing Prerequisites:

- Use "&" and "or" to conjoin multiple requirements; do not use 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:

- 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:

UF does not currently offer a course that weaves together the principles of geobiology and astrobiology from a geologic perspective at the advanced undergraduate or graduate level. This course will serve undergraduates and graduate students with interests in planetary science, geobiology, and astrobiology. Course content is distinctly geologic and is distinguished from courses offered by the Astronomy (AST2037) or Cell Science and Microbiology (MCB3703/5705) departments, and is focused on geobiology and astrobiology from a geologic perspective and using geologic principles and instrumental techniques.

Course Objectives

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

Response:

A student who successfully completes this course will be able to:

- 1) Describe foundational concepts in Geobiology, including microbial diversity and metabolisms, the geochemistry of organic cells, mechanisms of microbial biomineralization and weathering, early microbial life, and biosignature detection, and apply them to interpreting geobiologic conditions in modern and ancient environments.
- 2) Apply fundamental geobiologic techniques that are appropriate to the collection and characterization of geobiologic samples to appraise conceptual models for how life is preserved and detected in the fossil record and to relate how these techniques may be applied to life detection in the ancient terrestrial rock record, as well as on other worlds using the study of Astrobiology.
- 3) Develop and justify a coherent argument regarding which suites of techniques and approaches are most applicable and relevant to the search for life in the ancient terrestrial environment and in the search for life beyond Earth.

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:

No single text is required and assigned readings will consist of primary literature, i.e., peer-reviewed papers, on relevant course topics and will be provided by the instructor.

? Bennett, J. O., Shostak, S., & Jakosky, S. (2007). *Life in the Universe*. (Pearson, Ed.) (1st ed.).

? Dodd, M. S., Papineau, D., Grenne, T., Slack, J. F., Rittner, M., Pirajno, F., ... Little, C. T. S. (2017). Evidence for early life in Earth's oldest hydrothermal vent precipitates. *Nature*, 543(7643), 60–64. <https://doi.org/10.1038/nature21377>

? Domagal-Goldman, S. D., Wright, K. E., Adamala, K., Arina de la Rubia, L., Bond, J., Dartnell, L. R., ... Wong, T. (2016). *The Astrobiology Primer v2.0*. *Astrobiology*, 16(8), 561–653. <https://doi.org/10.1089/ast.2015.1460>

? Eigenbrode, J. L., Summons, R. E., Steele, A., Freissinet, C., Millan, M., Navarro-González, R., ... Coll, P. (2018). Organic matter preserved in 3-billion-year-old mudstones at Gale crater, Mars. *Science*, 360(6393), 1096–1101. <https://doi.org/10.1126/SCIENCE.AAS9185>

? Falkowski, P. G. (2016). *Life's Engines: How Microbes Made Earth Habitable*. Princeton: Princeton University Press. Konhauser, K. (2007). *Introduction to Geomicrobiology*. Blackwell Science Ltd.

? Lyons, T. W., Reinhard, C. T., & Planavsky, N. J. (2014). The rise of oxygen in Earth's early ocean and atmosphere. *Nature*, 506(7488), 307–315. <https://doi.org/10.1038/nature13068>

? Killops, S., & Killops, V. (2005). *Introduction to Organic Geochemistry* (2nd ed.). Blackwell Publishing.

? Knoll, A. H., Canfield, D. E., & Konhauser, K. O. (Eds.). (2012). *Fundamentals of Geobiology*.

Wiley-Blackwell.

? Konhauser, K. (2007). Introduction to Geomicrobiology. Blackwell Science Ltd.

? McKay, D. S., Gibson, E. K., Thomas-Keppta, K. L., Vali, H., Romanek, C. S., Clemett, S. J., ... Zare, R. N. (1996). Search for past life on Mars: possible relic biogenic activity in martian meteorite ALH84001. *Science (New York, N.Y.)*, 273(5277), 924–930.
<https://doi.org/10.1126/SCIENCE.273.5277.924>

? Mix, L. J., Armstrong, J. C., Mandell, A. M., Mosier, A. C., Raymond, J., Raymond, S. N., ... ; (2006). The Astrobiology Primer: An Outline of General Knowledge - Version 1. *Astrobiology*, 6(5), 735–813. <https://doi.org/10.1089/ast.2006.6.735>

? Mojzsis, S. J., Arrhenius, G., McKeegan, K. D., Harrison, T. M., Nutman, A. P., & Friend, C. R. L. (1996). Evidence for life on Earth before 3,800 million years ago. *Nature*, 384(6604), 55–59.
<https://doi.org/10.1038/384055a0>

? Slonczewski, J. L., & Foster, J. W. (2009). *Microbiology: An Evolving Science*. W.W. Norton & Co.

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 Readings Assignments
1 [1] Microbial Properties & Diversity The Missing Microbes, p9-22 Lab 1 Winogradsky Column I, Reading Homework Microbiology, Microbiology p6-11 thru Sec 1.1, p27-36
Geochemical Cycling & Microbial Genetics

2 [1] Microbial Properties & Diversity Life in the Universe 1, p60-77 Lab 2 Reading Scientific Papers, Reading Homework Organic Geochemistry 2 due 1/12, [2] Microbial Metabolisms Organic Geochemistry 2, p5-23

3 [2] Microbial Metabolisms Intro to Geomicrobiology, p47-92, Astrobiology Primer 1.0, p793-804 (Ch. 6 Diversity of Life) Write Paper #1 critique 1/19, Reading Homework Intro to Geomicrobiology, Catch up & Review

4 [3] Organic Geochemistry Lab 3 CHONPS cycling, Take Home Exam 1 (on topics [1] and [2])

5 [3] Organic Geochemistry Organic Geochemistry 1, p30-60 Reading Homework Organic Geochemistry 1, Lab 4 Mass Spectrometry, Write Paper #2 critique

6 [4] Biomineralization

Fundamentals of Geobiology, p105-125 Reading Homework Fund'ls of Geobiology, Lab 5 Spectroscopy, Write Paper #3 critique

7 [4] Biomineralization Write Paper #4 critique due 2/16, Catch up & Review

8 [5] Microbial Weathering Lab 6 Carbonate Mineralization, Take Home Exam 2 (on topics [3] and [4])

9 [5] Microbial Weathering Life in the Universe 2, p114-130 Reading Homework Life in the Universe 2, Lab 7 Microbial Weathering, Write Paper #5 critique
Spring Break

10 [6] Early Microbial Life Astrobiology Primer 1.0, p756-765 (2D Early Earth Environments) Term Paper Annotated Bibliography, Lab 8 Winogradsky Column II, Reading Homework Astrobiology Primer 1

11 [6] Early Microbial Life Write Paper #6 critique due 3/23, Catch up & Review

12 [7] Biosignature Detection Astrobiology Primer 2.0, p613-623 (Ch. 7)

Lab 9 Biosignature Detection on Earth and Mars, Reading Homework Astrobiology Primer 2, Take Home Exam 3 (on topics [5] and [6])

13 [7] Biosignature Detection Term Paper Draft due, Lab 10 Winogradsky Column III

14 [7] Biosignature Detection Astrobiology Primer 1.0, p777-780 (4E Chemical Fossils) & p780-783 (4F Paleontology) Write Paper #7 critique due, [8] Astrobiology

15 [8] Astrobiology Write Paper #8 critique due, Final term papers due to Canvas

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:

For GLY 4XXX

EXAM 1	15%	
EXAM 2	15%	
EXAM 3	15%	
LITERATURE CRITIQUES	10%	
LITERATURE PRESENTATION		15%
HOMEWORK QUIZZES	15%	
IN CLASS ACTIVITIES	15%	
100% TOTAL		

For GLY 6XXX

EXAM 1	15%	
EXAM 2	15%	
EXAM 3	15%	
LITERATURE CRITIQUES	10%	
LITERATURE PRESENTATION		10%
HOMEWORK QUIZZES	10%	
IN CLASS ACTIVITIES	10%	
FINAL TERM PAPER	15%	
100% TOTAL		

Rubrics and grading are as follows:

Exams: The three exams have grading keys based on accuracy of responses compared to material presented in the lecture.

Literature Critiques: The literature critiques are ~2-page summaries due before we discuss the scientific article in class. The rubric will be attached to this application and in short address the criteria that fulfill A, B, C, or D/E level critiques. The criteria topics include:

Purpose & Clarity, Critique Logic and Organization, Required Critique Content, Critique addresses topic specific questions as outlined in the Critique Guidelines document, Critique Length, Grammar/ Spelling/ Writing Mechanics

Literature presentations: Every student will take responsibility for presenting or co-presenting one journal article to the class in powerpoint (or comparable) format, describing the nature of the article, the findings, and any relevant supplemental material, including any external sources or materials needed to fully explain the article. Presentations and their relevant discussions are expected to take ~1 hour. Students are not required to submit a literature critique on the paper that they present to the class. The rubric will be attached to this application and in short address the criteria that fulfill A, B, C, or D/E level presentation. The criteria topics include: Purpose & Clarity, Logic and Organization, Required Content Presented, Presentation and Discussion Length.

Homework quizzes: The ~10 homework quizzes have grading keys based on accuracy of responses compared to material available in the assigned reading.

In class activities: The in-class activities have grading keys based on accuracy of responses compared to material presented in the lectures.

Final term paper: The final term papers are due for the graduate students (not the undergraduate students) and entail a ~10-12 page paper on a topic that is relevant to both their research field and some overlap with geobiology or astrobiology topics. The rubric will be attached to this

application and in short address the criteria that fulfill A, B, C, or D/E level critiques. The criteria topics include:

Purpose & Clarity, Logic and Organization, Required Paper Content, Report Length, Grammar/ Spelling/ Writing Mechanics, Use of references in the text, quality of references from annotated bibliography, required number of references used.

Grading Scheme:

	A = 94.0-100%	A- = 90.0-93.9%
B+ = 87.0-89.9%	B = 84.0-86.9%	B- = 80.0-83.9%
C+ = 77.0-79.9%	C = 70.0-76.9%	
D+ = 67.0-69.9%	D = 64.0-66.9%	D- = 60.0-63.9%
E = below 60.0%		

Instructor(s)

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

Response:

Amy Williams

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy.

A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started with the Disability Resource Center](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.

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/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/>.

Response:

Yes

**Survey of Geobiology & Astrobiology
(GLY 6XXX) Syllabus
Spring 2024
Williamson Hall 210
W 9:35 AM – 12:35 PM**



Contact Information

<i>Instructor:</i>	Dr. Amy Williams	<i>Email:</i>	amywilliams1@ufl.edu
<i>Office:</i>	Williamson Hall 270	<i>Phone:</i>	352-273-1284
<i>Office Hours:</i>	Mondays 3-4pm Or by appointment Monday through Friday	<i>Department Mailbox:</i>	WM 241

Required Text

- ❖ Readings and materials on Canvas

Catalog Course Description

Survey of the parallel evolution of life and the environment. Chemical and physical processes in the atmosphere, hydrosphere, cryosphere and the solid earth influence life processes. In turn, life can influence chemical and physical processes on our planet. Explores the concept of life as a geological agent and examines the interaction between biology and the earth system during the roughly 4 billion years since life first appeared.

Prerequisites: enrollment in a graduate program.

Course Objectives

A student who successfully completes this course will be able to:

- 1) Describe foundational concepts in Geobiology, including microbial diversity and metabolisms, the geochemistry of organic cells, mechanisms of microbial biomineralization and weathering, early microbial life, and biosignature detection, and apply them to interpreting geobiologic conditions in modern and ancient environments.
- 2) Apply fundamental geobiologic techniques that are appropriate to the collection and characterization of geobiologic samples to appraise conceptual models for how life is preserved and detected in the fossil record and to relate how these techniques may be applied to life detection in the ancient terrestrial rock record, as well as on other worlds using the study of Astrobiology.
- 3) Develop and justify a coherent argument regarding which suites of techniques and approaches are most applicable and relevant to the search for life in the ancient terrestrial environment and in the search for life beyond Earth.

Grading

Grading Scheme:

	A = 94.0-100%	A- = 90.0-93.9%
B+ = 87.0-89.9%	B = 84.0-86.9%	B- = 80.0-83.9%
C+ = 77.0-79.9%	C = 70.0-76.9%	
D+ = 67.0-69.9%	D = 64.0-66.9%	D- = 60.0-63.9%
E = below 60.0%		

The final course grade will be calculated using the following system:

EXAM 1	15%
EXAM 2	15%
EXAM 3	15%
LITERATURE CRITIQUES	10%
LITERATURE PRESENTATION	10%
HOMEWORK QUIZZES	10%

IN CLASS ACTIVITIES	10%
FINAL TERM PAPER	15%
	100% TOTAL

More information on grades and grading policies is here:

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

Exams: Exams will cover material from lectures, assigned text readings, and in-class activities.

Literature Critiques: We will discuss peer-reviewed journal articles during the term. These articles will be posted on Canvas in advance of the scheduled discussion. The goal of these assignments is to increase your familiarity with the scientific literature and to begin to assess and recognize the components of a quality scientific paper. The entire class will read a scientific paper and each student will write a two-page summary of the article before class. During part of designated course periods, we will discuss the paper as a class. Details of the full write up are forthcoming. Each critique should be no longer than two pages, 1.5 line spacing, 1" margins, typed, 12 point Times New Roman font, and the complete citation of the paper should be at the top of the page.

Literature Presentation: Each person will lead or co-lead the discussion on a paper during the semester. Every student will take responsibility for presenting or co-presenting one journal article to the class in powerpoint (or comparable) format, describing the nature of the article, the findings, and any relevant supplemental material, including any external sources or materials needed to fully explain the article. Presentations and their relevant discussions are expected to take ~1 hour. You are not required to submit a literature critique on the paper that you present to the class.

Field Trip & In Class Activities: Schedule permitting, you will participate in a field trip and several in class activities with the goal of learning observational skills, learning techniques used by geobiologists, and reinforcing lecture content by applying the concepts you have learned. In class activity due dates will be listed on the activity. You will write a brief lab report on the field trip, instructions are forthcoming.

Homework: Brief, 10 question homework quizzes will be due on Canvas before the start of class on the due dates listed on the schedule. No assignments will be accepted if completed and/or submitted during class time. Late submissions are subject to the late penalty described below.

Written Term Papers: At the end of the term, graduate students will submit an individual term paper. An annotated bibliography is due early in the semester to Canvas in which you will compile a minimum of 10 peer-reviewed, relatively-recent (post-2000) most-important publications on the topic of your paper and provide at least four sentences describing the subject and findings of each paper. An optional draft outline of this term paper is due mid-semester to Canvas. Details of the draft requirements are available in a separate document. The final individual paper is due at the end of the semester to Canvas.

Lecture Schedule: The schedule for lecture topics, reading assignments, and exams is below, and posted separately on Canvas.

Class Policies

Course communication: Necessary course materials, in addition to the required text, will be available on Canvas. You are responsible for anything sent by the instructor via email or posted on Canvas. All email communication will be sent to university email accounts; you are responsible for checking your university email account at least daily. In most cases allow 24 hours for an email response from me (and longer over weekends).

I am happy to meet during office hours if you have questions, and if those times do not work, please e-mail me to set up another time for us to meet. You are also welcome to email me with questions. *To help me distinguish your emails from those coming in from other classes, add "GLY 4XXX/6XXX" to the start of your subject line. Please use best practices in your email to me (and all faculty)—this includes*

signing off with your name, using full sentences, and not using text shorthand. This conveys an important sense of professionalism that is worth practicing for future jobs.

Attendance: Students are expected to attend all lectures, labs, exams, and field trips as scheduled. Students are also advised to read each assignment prior to its discussion in class/lab. If you miss a lecture, you should get notes from a classmate. I will not provide notes or a summary of the class. There are no make-up exams except for documented medical or personal emergencies. If this situation is applicable to you, contact me as soon as possible (amywilliams1@ufl.edu) or notify the Department Administrative Assistant (352-392-2231).

Late or Missed Assignments: *There will be no make-up assignments without either prior approval or an official documented excuse.* Unexcused late assignments will be penalized 10% if they are turned in after the due date, and 10% more for each subsequent day. If you turn assignments in to my mailbox, please send me an e-mail telling me as much, else I will mark it late based on when I find it. I do not go to my mailbox daily. 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>.

Electronic Devices: Cell phones and other communication devices must be set to silent or turned off. Calls cannot be made or accepted during class, and texting is not permitted.

Use of Generative AI: Unless an activity specifically requests the use of generative AI, you may not use this resource to create or augment assignments even with appropriate attribution.

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." University of Florida students are bound by the Honor Pledge. On all work submitted for credit by a student, the following pledge is required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Student Honor Code and Conduct Code (Regulation 4.040) specifies a number of behaviors that are in violation of this code, as well as the process for reported allegations and sanctions that may be implemented. All potential violations of the code will be reported to Student Conduct and Conflict Resolution. If a student is found responsible for an Honor Code violation in this course, the instructor will enter a Grade Adjustment sanction which may be up to or including failure of the course. See <https://sccr.dso.ufl.edu/resources-by-audience/faculty-and-staff/honor-code-syllabi/> for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Withdrawal Policy: Students may withdraw from the course with the grade of W at any time prior to and including <month><day><year>.

Students with Disabilities: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started 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.

Counseling and Wellness Center: Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 352-392-1575; and the University Police Department: 352-392-1111 or 9-1-1 for emergencies.

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.ua.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.ua.ufl.edu/public-results/>.

Course Materials Bibliography

- ❖ Bennett, J. O., Shostak, S., & Jakosky, S. (2007). *Life in the Universe*. (Pearson, Ed.) (1st ed.).
- ❖ Dodd, M. S., Papineau, D., Grenne, T., Slack, J. F., Rittner, M., Pirajno, F., ... Little, C. T. S. (2017). Evidence for early life in Earth's oldest hydrothermal vent precipitates. *Nature*, 543(7643), 60–64. <https://doi.org/10.1038/nature21377>
- ❖ Domagal-Goldman, S. D., Wright, K. E., Adamala, K., Arina de la Rubia, L., Bond, J., Dartnell, L. R., ... Wong, T. (2016). The Astrobiology Primer v2.0. *Astrobiology*, 16(8), 561–653. <https://doi.org/10.1089/ast.2015.1460>
- ❖ Eigenbrode, J. L., Summons, R. E., Steele, A., Freissinet, C., Millan, M., Navarro-González, R., ... Coll, P. (2018). Organic matter preserved in 3-billion-year-old mudstones at Gale crater, Mars. *Science*, 360(6393), 1096–1101. <https://doi.org/10.1126/SCIENCE.AAS9185>
- ❖ Falkowski, P. G. (2016). *Life's Engines: How Microbes Made Earth Habitable*. Princeton: Princeton University Press.
- ❖ Konhauser, K. (2007). *Introduction to Geomicrobiology*. Blackwell Science Ltd.
- ❖ Lyons, T. W., Reinhard, C. T., & Planavsky, N. J. (2014). The rise of oxygen in Earth's early ocean and atmosphere. *Nature*, 506(7488), 307–315. <https://doi.org/10.1038/nature13068>
- ❖ Killips, S., & Killips, V. (2005). *Introduction to Organic Geochemistry* (2nd ed.). Blackwell Publishing.
- ❖ Knoll, A. H., Canfield, D. E., & Konhauser, K. O. (Eds.). (2012). *Fundamentals of Geobiology*. Wiley-Blackwell.
- ❖ Konhauser, K. (2007). *Introduction to Geomicrobiology*. Blackwell Science Ltd.
- ❖ McKay, D. S., Gibson, E. K., Thomas-Keprta, K. L., Vali, H., Romanek, C. S., Clemett, S. J., ... Zare, R. N. (1996). Search for past life on Mars: possible relic biogenic activity in martian meteorite ALH84001. *Science (New York, N.Y.)*, 273(5277), 924–930. <https://doi.org/10.1126/SCIENCE.273.5277.924>
- ❖ Mix, L. J., Armstrong, J. C., Mandell, A. M., Mosier, A. C., Raymond, J., Raymond, S. N., ... ; (2006). The Astrobiology Primer: An Outline of General Knowledge - Version 1. *Astrobiology*, 6(5), 735–813. <https://doi.org/10.1089/ast.2006.6.735>
- ❖ Mojzsis, S. J., Arrhenius, G., McKeegan, K. D., Harrison, T. M., Nutman, A. P., & Friend, C. R. L. (1996). Evidence for life on Earth before 3,800 million years ago. *Nature*, 384(6604), 55–59. <https://doi.org/10.1038/384055a0>
- ❖ Slonczewski, J. L., & Foster, J. W. (2009). *Microbiology: An Evolving Science*. W.W. Norton & Co.

Tentative Schedule

**** This schedule is subject to change with appropriate prior notification. ****

Week	Dates	Topic	Readings	Assignments
1	01/05	[1] Microbial Properties & Diversity	The Missing Microbes, p9-22	Lab 1 Winogradsky Column I Reading Homework Microbiology due 1/12
			Microbiology p6-11 thru Sec 1.1, p27-36 Geochemical Cycling & Microbial Genetics	
2	01/12	[1] Microbial Properties & Diversity	Life in the Universe 1, p60-77	Lab 2 Reading Scientific Papers Reading Homework Organic Geochemistry 2 due 1/12
		[2] Microbial Metabolisms	Organic Geochemistry 2, p5-23	
3	01/19	[2] Microbial Metabolisms	Intro to Geomicrobiology, p47-92	Write Paper #1 critique 1/19 Reading Homework Intro to Geomicrobiology due 1/19
		Catch up & Review	Astrobiology Primer 1.0, p793-804 (Ch. 6 Diversity of Life)	
4	01/26	[3] Organic Geochemistry		Lab 3 CHONPS cycling Take Home Exam 1 (on topics [1] and [2]) due 1/28

5	02/02	[3] Organic Geochemistry	Organic Geochemistry 1, p30-60	Reading Homework Organic Geochemistry 1 due 2/02 Lab 4 Mass Spectrometry Write Paper #2 critique due 2/02
6	02/09	[4] Biomineralization	Fundamentals of Geobiology, p105-125	Reading Homework Fund'ls of Geobiology due 2/09 Lab 5 Spectroscopy Write Paper #3 critique due 2/09
7	02/16	[4] Biomineralization Catch up & Review		Write Paper #4 critique due 2/16
8	02/23	[5] Microbial Weathering		Lab 6 Carbonate Mineralization Take Home Exam 2 (on topics [3] and [4]) due 2/25
9	03/02	[5] Microbial Weathering	Life in the Universe 2, p114-130	Reading Homework Life in the Universe 2 due 3/02 Lab 7 Microbial Weathering Write Paper #5 critique due 3/02
	03/09	<i>Spring Break</i>		
10	03/16	[6] Early Microbial Life	Astrobiology Primer 1.0, p756-765 (2D Early Earth Environments)	Term Paper Annotated Bibliography due 3/14 Lab 8 Winogradsky Column II Reading Homework Astrobiology Primer 1 due 3/16
11	03/23	[6] Early Microbial Life Catch up & Review		Write Paper #6 critique due 3/23
12	03/30	[7] Biosignature Detection	Astrobiology Primer 2.0, p613-623 (Ch. 7)	Lab 9 Biosignature Detection on Earth and Mars Reading Homework Astrobiology Primer 2 due 3/30 Take Home Exam 3 (on topics [5] and [6]) due 4/01
13	04/06	[7] Biosignature Detection		Term Paper Draft due 4/08 Lab 10 Winogradsky Column III
14	04/13	[7] Biosignature Detection [8] Astrobiology	Astrobiology Primer 1.0, p777-780 (4E Chemical Fossils) & p780-783 (4F Paleontology)	Write Paper #7 critique due 4/13
15	04/20	[8] Astrobiology		Write Paper #8 critique due 4/20
	04/27	Final term papers due at midnight to Canvas		

Paper 1 McKay 1996

Paper 2 Ruff & Farmer 2016

Paper 3 Eigenbrode 2018

Paper 4 Lalonde 2012

Paper 5 Chan 2004

Paper 6 Menez 2018

Paper 7 Allwood 2018

Paper 8 Dodd 2017

Geobiology (GLY 4930/6932) Term Paper Guidelines

Geobiology is the study of the interaction between life and geology, and as you have seen, it is interdisciplinary and requires knowledge about geology, biology, chemistry and physics. The study of **astrobiology** is the search for life beyond Earth and it requires scientists to use remote techniques to search for evidence of life, which we call biosignatures. These techniques can include fly-by missions to other planets and moons, *in situ* landers and rovers, and even observations of other worlds using space telescopes. Your term paper in this course poses the following question:

“What technique or suite of techniques do you believe is the most promising for finding life beyond Earth?”

This question is meant to push you to think about the approaches we currently have in geobiology and astrobiology, and how we can apply those techniques, or develop new ones, to answer the question “Are we alone in the universe?”. The location of your study is up to you (Mars, icy moons, planets in distant galaxies, etc...) and your techniques can include any variety of mission concepts with various instruments on the mission. Because it is still so difficult to send humans to space, you cannot propose a manned mission, but you can comment on how humans would or would not improve the science done on these missions. You can even argue that even if there is life in the universe, we’ll never get to meet it. BUT you have to substantiate your claim (and there’s lots of literature on that too)!

ANNOTATED BIBLIOGRAPHY

First, for the Annotated Project Bibliography, **compile a minimum of 10 peer-reviewed, recent (post-2000) most-important publications on the topic** and provide at least two sentences summarizing the subject and findings of each paper, as well as at least two sentences on how the work is applicable to your research topic. If there is a seminal article relevant to your research that is pre-2000, you may include it but provide an additional sentence of reasoning as to why the article should be included in your list.

WHAT IS AN ANNOTATED BIBLIOGRAPHY? An annotated bibliography is a list of citations to books, articles, and documents. Each citation is followed by a brief (usually about 150 words) descriptive and evaluative paragraph, the annotation. The purpose of the annotation is to inform the reader of the relevance, accuracy, and quality of the sources cited.

ANNOTATIONS VS. ABSTRACTS Abstracts are the purely descriptive summaries often found at the beginning of scholarly journal articles. Annotations are descriptive and critical; they may describe the author’s point of view, authority, or clarity and appropriateness of expression.

THE PROCESS Creating an annotated bibliography calls for the application of a variety of intellectual skills: concise exposition, succinct analysis, and informed library research. Locate and record citations to books, peer-reviewed journal articles, and government

documents that may contain useful information and ideas on your topic. Briefly examine and review the actual items. Then choose those works that provide a variety of perspectives on your topic. Cite the source using the *Geochimica et Cosmochimica Acta* style, outlined below.

In addition, you should also include an abstract for your whole annotated bibliography. The abstract can be short (1-2 paragraphs) and it should identify the major research questions/problems addressed by the 10 publications listed in your bibliography. Use the reference style of *Geochimica et Cosmochimica Acta* (examples below).

CITATION STYLE EXAMPLES FOR *GEOCHIMICA ET COSMOCHIMICA ACTA*

Nealson K. H. (1997) Sediment Bacteria: Who's There, What Are They Doing, and What's New? *Annu. Rev. Earth Planet. Sci.* **25**, 403–434.

Grimalt J. and Albaiges J. (1987) Sources and occurrence of C₁₂ to C₂₂ *n*-alkane distributions with even carbon-number preference in sedimentary environments. *Geochim. Cosmochim. Acta* **51**, 1379–1384.

Wilhelm M. B., Davila A. F., Eigenbrode J. L., Parenteau M. N., Jahnke L. L., Liu X., Summons R. E., Wray J. J., Stamos B. N., O'Reilly S. S. and Williams A. J. (2017) Xeropreservation of functionalized lipid biomarkers in hyperarid soils in the Atacama Desert. *Org. Geochem.* **103**, 97–104.

Knoll A. H., Canfield D. E. and Konhauser K. O. eds. (2012) *Fundamentals of Geobiology.*, Wiley-Blackwell.

SAMPLE ANNOTATED BIBLIOGRAPHY ENTRY

In the sample annotation below, the writer includes three paragraphs: a summary, an evaluation of the text, and a reflection on its applicability to his/her own research, respectively. For your annotated bibliography, two paragraphs including a summary and how the work is applicable to your research is also acceptable.

Lamott, Anne. *Bird by Bird: Some Instructions on Writing and Life*. Anchor Books, 1995.

Lamott's book offers honest advice on the nature of a writing life, complete with its insecurities and failures. Taking a humorous approach to the realities of being a writer, the chapters in Lamott's book are wry and anecdotal and offer advice on everything from plot development to jealousy, from perfectionism to struggling with one's own internal critic.

In the process, Lamott includes writing exercises designed to be both productive and fun. Lamott offers sane advice for those struggling with the anxieties of writing, but her main project seems to be offering the reader a reality check regarding writing, publishing, and struggling with one's own imperfect humanity in the process. Rather than a practical handbook to producing and/or publishing, this text is indispensable because of its honest perspective, its down-to-earth humor, and its encouraging approach.

Chapters in this text could easily be included in the curriculum for a writing class. Several of the chapters in Part 1 address the writing process and would serve to generate discussion on students' own drafting and revising processes. Some of the writing exercises would also be appropriate for generating classroom writing exercises. Students should find Lamott's style both engaging and enjoyable.

OPTIONAL DRAFT TERM PAPER

The draft term paper should be 5 pages at minimum, 1.5 line-spaced, and you should have **at least 5 sources** cited in your draft. Consider formatting your draft to look like the review articles or journal articles that we discuss in class (e.g. containing an Introduction, Study Area (*if applicable*), Methods, Results, Discussion, and Conclusion section).

FINAL TERM PAPER

The final term paper should be 10 to no more than 12 pages, 1.5 line-spaced, and you must have at least **10 sources** cited in your final paper. See the grading rubric for details on how grades will be assessed. Format your term paper to look like the review articles or journal articles that we discuss in class (e.g. containing an Introduction, Study Area (*if applicable*), Methods, Results, Discussion, Conclusion, and References section).

In-text Citation Format

Use a full in text citation where appropriate. For example, "Williams & Elardo (2014) claimed X, and later further supported these results with Y (Williams et al., 2015)".

Use the following format for in-text citations:

One author: (Author 1 last name, year)

Example: (Williams, 2019)

Two authors: (Author 1 last name and Author 2 last name, year)

Example (Williams & Elardo, 2018)

Three or more authors: (Author 1 last name et al., year)

Example (Williams et al., 2017)

Criteria	Excellent - A paper	Very Good - B paper	Acceptable - C paper	Unacceptable - D/F paper
Purpose & Clarity	The purpose of the paper is well addressed and supporting details are clear.	The purpose of the paper is clear, with supporting details that may sometimes digress.	The purpose and supporting details are not consistently clear throughout the paper.	The purpose of the paper is not achieved and supporting details are generally unclear.
Paper Logic and Organization	The ideas are arranged logically to support the purpose or argument. They flow smoothly from one to another and are clearly linked to each other. The reader can follow the line of reasoning.	The ideas are arranged logically to support the central purpose or argument. They are usually clearly linked to each other. For the most part, the reader can follow the line of reasoning.	In general, the writing is arranged logically, although occasionally ideas fail to make sense together. The reader is fairly clear about what writer intends.	The writing is not logically organized. Frequently, ideas fail to make sense together. The reader cannot identify a line of reasoning.
Required Content: Intro, Background, Methods (if appropriate), Results, Discussion, Conclusions, References	All required report content is present and well developed.	One component of the required report content <u>does not have sufficient information</u> , but the others are well developed.	One component of the required report content is <u>missing</u> , but the other components are well developed; or <u>two do not have sufficient information</u> , but rest are well developed.	<u>Two or more components are missing</u> , or <u>three to four components do not have sufficient information</u> .
Report Length	Report is at least 10-12 pages in length.			Report is less than the specified 10 page length.
Grammar/ Spelling/ Writing Mechanics	The writing is free or almost free of errors.	There are occasional errors, but they don't represent a major distraction or obscure meaning.	The writing has many errors, and the reader is distracted by them.	There are so many errors that meaning is obscured. The reader is confused and stops reading.
Use of References in the Text (At least 10 references required)	Compelling evidence from peer-reviewed professional journals is given to support claims. Attribution is clear and fairly represented.	Professional journal sources that support claims are generally present and attribution is <u>mostly</u> clear and fairly represented.	Some attributions are given but many statements seem unsubstantiated. The reader is confused about the source of information.	References are seldom cited to support statements.
Annotated Bibliography: Quality of References	References are primarily peer-reviewed professional journals or government documents. The reader is confident that the information and ideas can be trusted.	Most of the references are professionally legitimate, but a few are questionable (e.g internet sources, blogs, WIKIPEDIA without primary sources). The reader is uncertain of the reliability of the sources.	Most of the references are from sources that are not peer-reviewed and have uncertain reliability. The reader doubts the accuracy of much of the material presented.	There are no sources that are professionally reliable. The reader seriously doubts the value of the material.
Annotated Bibliography: Number of references	10 or more references	9-8 references	7-6 references	5 or fewer references

GLY 4930/6932 Literature Critique Guidelines

Before the start of class (by 9:30am) on the day we discuss the paper, you should upload to Canvas a two-page summary of the paper to be turned in as part of your class grade. Papers not turned in before class starts will be counted as late. Please adhere to the following guidelines:

- No less than 1 $\frac{3}{4}$ to no more than 2 $\frac{1}{2}$ pages
- 12-point Times New Roman font
- 1.5 line spacing

The written summary should include an eight-sentence summary of the Introduction, Methods, Results, and Discussion (two sentences/ subsection).

After that, address the following questions:

- 1) Did the authors present clear justification for the work? Substantiate your answer.
- 2) Is there a clear hypothesis? Is the hypothesis tested? Is the test appropriate?
- 3) What are the strengths or limitations of the sample selection and/or methods employed?
- 4) Did they discuss their findings fully and comment on any problems or unusual observations?
- 5) Is there an alternative interpretation of the data that the author did not address?
- 6) What are some of the specific applications of the ideas presented here? What are some further experiments that would answer remaining questions?

Most of us find scientific papers hard to read! In fact, you should expect to read a paper several times before you begin to get a strong grasp of its contents. You often may need to refer to (and discuss) other papers, especially those cited in the paper. Your grade on this will be based upon your ability to synthesize and grasp the methods, meaning and importance of the results i.e. thoughtfulness (not completeness) of your evaluation.

For each in class paper discussion, be prepared to present:

- 1) two questions on an aspect that you didn't understand.
- 2) two aspects to point out that you found interesting and why.
- 3) be ready to explain the meaning of **any** graph or figure in the paper.

Use a full in text citation where appropriate (e.g. Williams & Elardo (2014) claimed X, and later further supported these results with Y (Williams et al., 2015). No bibliography is required at the end of the summary.

Use the following format for in-text citations:

One author: (Author 1 last name, year)

Two authors: (Author 1 last name and Author 2 last name, year)

Three or more authors: (Author 1 last name et al., year)

Criteria	Excellent - A paper	Very Good - B paper	Acceptable - C paper	Unacceptable - D/E paper
Purpose & Clarity	The purpose of the paper is well addressed and supporting details are clear.	The purpose of the paper is clear, with supporting details that may sometimes digress.	The purpose and supporting details are not consistently clear throughout the paper.	The purpose of the paper is not achieved and supporting details are generally unclear.
Critique Logic and Organization	The ideas are arranged logically to support the purpose or argument. They flow smoothly from one to another and are clearly linked to each other. The reader can follow the line of reasoning.	The ideas are arranged logically to support the central purpose or argument. They are usually clearly linked to each other. For the most part, the reader can follow the line of reasoning.	In general, the writing is arranged logically, although occasionally ideas fail to make sense together. The reader is fairly clear about what writer intends.	The writing is not logically organized. Frequently, ideas fail to make sense together. The reader cannot identify a line of reasoning.
Required Critique Content: Eight-sentence summary of the Introduction, Methods, Results, and Discussion.	All required critique content is present and well developed.	One component of the required critique content <u>does not have sufficient information</u> , but the others are well developed.	One component of the required critique content is <u>missing</u> , but the other components are well developed; or <u>two do not have sufficient information</u> , but rest are well developed.	<u>Two or more</u> components are <u>missing</u> , or <u>three to four</u> components <u>do not have sufficient information</u> .
Critique addresses topic specific questions as outlined in the Critique Guidelines document	All required questions are addressed.	4/6 questions are addressed	2/6 questions are addressed.	None of the required questions are addressed.
Critique Length	Critique is no less than 1 ¾ to no more than 2 ½ pages in length.	Critique is 1 ½ pages in length.	Critique is 1 ¼ pages in length.	Critique is 1 or fewer pages in length.
Grammar/ Spelling/ Writing Mechanics	The writing is free or almost free of errors.	There are occasional errors, but they don't represent a major distraction or obscure meaning.	The writing has many errors, and the reader is distracted by them.	There are so many errors that meaning is obscured. The reader is confused and stops reading.

Author: _____

Criteria	Excellent - A level	Very Good - B level	Acceptable - C level	Unacceptable - D/E level
Purpose & Clarity	The purpose of the paper is well presented and supporting details are clear.	The purpose of the paper is clear, with supporting details that may sometimes digress.	The purpose and supporting details are not consistently clear throughout the paper.	The presentation of the paper's purpose is not achieved and supporting details are generally unclear.
Logic and Organization	The ideas are arranged logically to support presentation of the paper. They flow smoothly from one to another and are clearly linked to each other. The audience can follow the line of reasoning.	The ideas are arranged logically to support presentation of the paper. They are usually clearly linked to each other. For the most part, the audience can follow the line of reasoning.	In general, the presentation is arranged logically, although occasionally ideas fail to make sense together. The audience is fairly clear about what the presentation intends.	The presentation is not logically organized. Frequently, ideas fail to make sense together. The audience cannot identify a line of reasoning.
Required Content Presented: Intro, Background, Map (if applic.), Methods, Results, Discussion, Conclusions	All required content is present and well developed.	One component of the required content <u>does not have sufficient information</u> , but the others are well developed.	One component of the required content is <u>missing</u> , but the other components are well developed; or <u>two do not have sufficient information</u> , but rest are well developed.	<u>Two or more components are missing, or three to four components do not have sufficient information.</u>
Presentation & Discussion Length	The combined presentation and discussion takes ~1 hour.	The combined presentation and discussion takes ~45 minutes.	The combined presentation and discussion takes ~30 minutes.	The combined presentation and discussion takes less than 30 minutes.

**Survey of Geobiology & Astrobiology
(GLY 4XXX) Syllabus
Spring 2024
Williamson Hall 210
W 9:35 AM – 12:35 PM**



Contact Information

<i>Instructor:</i>	Dr. Amy Williams	<i>Email:</i>	amywilliams1@ufl.edu
<i>Office:</i>	Williamson Hall 270	<i>Phone:</i>	352-273-1284
<i>Office Hours:</i>	Mondays 3-4pm Or by appointment Monday through Friday	<i>Department Mailbox:</i>	WM 241

Required Text

- ❖ Readings and materials on Canvas

Catalog Course Description

Chemical and physical processes in the atmosphere, hydrosphere, cryosphere and the solid earth influence life processes, which can also influence planetary processes. Explores life as a geological agent and examines the interaction between biology and the earth system during the roughly 4 billion years since life first appeared.

Prerequisites: GLY 2010 or permission of the instructor.

Course Objectives

A student who successfully completes this course will be able to:

- 1) Describe foundational concepts in Geobiology, including microbial diversity and metabolisms, the geochemistry of organic cells, mechanisms of microbial biomineralization and weathering, early microbial life, and biosignature detection, and apply them to interpreting geobiologic conditions in modern and ancient environments.
- 2) Identify fundamental geobiologic techniques that are appropriate to the collection and characterization of geobiologic samples.
- 3) Use observations and data to articulate a conceptual model for how life is preserved and detected in the fossil record and how these techniques may be applied to life detection in the ancient terrestrial rock record, as well as on other worlds using the study of Astrobiology.

Grading

Grading Scheme:

	A = 94.0-100%	A- = 90.0-93.9%
B+ = 87.0-89.9%	B = 84.0-86.9%	B- = 80.0-83.9%
C+ = 77.0-79.9%	C = 70.0-76.9%	
D+ = 67.0-69.9%	D = 64.0-66.9%	D- = 60.0-63.9%
E = below 60.0%		

The final course grade will be calculated using the following system:

EXAM 1	15%
EXAM 2	15%
EXAM 3	15%
LITERATURE CRITIQUES	10%
LITERATURE PRESENTATION	15%
HOMEWORK QUIZZES	15%
IN CLASS ACTIVITIES	15%
	100% TOTAL

More information on grades and grading policies is here:

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

Exams: Exams will cover material from lectures, assigned text readings, and in-class activities.

Literature Critiques: We will discuss peer-reviewed journal articles during the term. These articles will be posted on Canvas in advance of the scheduled discussion. The goal of these assignments is to increase your familiarity with the scientific literature and to begin to assess and recognize the components of a quality scientific paper. The entire class will read a scientific paper and each student will write a two-page summary of the article before class. During part of designated course periods, we will discuss the paper as a class. Details of the full write up are forthcoming. Each critique should be no longer than two pages, 1.5 line spacing, 1" margins, typed, 12 point Times New Roman font, and the complete citation of the paper should be at the top of the page.

Literature Presentation: Each person will lead or co-lead the discussion on a paper during the semester. Every student will take responsibility for presenting or co-presenting one journal article to the class in powerpoint (or comparable) format, describing the nature of the article, the findings, and any relevant supplemental material, including any external sources or materials needed to fully explain the article. Presentations and their relevant discussions are expected to take ~1 hour. You are not required to submit a literature critique on the paper that you present to the class.

Field Trip & In Class Activities: Schedule permitting, you will participate in a field trip and several in class activities with the goal of learning observational skills, learning techniques used by geobiologists, and reinforcing lecture content by applying the concepts you have learned. In class activity due dates will be listed on the activity. You will write a brief lab report on the field trip, instructions are forthcoming.

Homework: Brief, 10 question homework quizzes will be due on Canvas before the start of class on the due dates listed on the schedule. No assignments will be accepted if completed and/or submitted during class time. Late submissions are subject to the late penalty described below.

Lecture Schedule: The schedule for lecture topics, reading assignments, and exams is below, and posted separately on Canvas.

Class Policies

Course communication: Necessary course materials, in addition to the required text, will be available on Canvas. You are responsible for anything sent by the instructor via email or posted on Canvas. All email communication will be sent to university email accounts; you are responsible for checking your university email account at least daily. In most cases allow 24 hours for an email response from me (and longer over weekends).

I am happy to meet during office hours if you have questions, and if those times do not work, please e-mail me to set up another time for us to meet. You are also welcome to email me with questions. *To help me distinguish your emails from those coming in from other classes, add "GLY 4XXX/6XXX" to the start of your subject line. Please use best practices in your email to me (and all faculty)—this includes signing off with your name, using full sentences, and not using text shorthand. This conveys an important sense of professionalism that is worth practicing for future jobs.*

Attendance: Students are expected to attend all lectures, labs, exams, and field trips as scheduled. Students are also advised to read each assignment prior to its discussion in class/lab. If you miss a lecture, you should get notes from a classmate. I will not provide notes or a summary of the class. There are no make-up exams except for documented medical or personal emergencies. If this situation is applicable to you, contact me as soon as possible (amywilliams1@ufl.edu) or notify the Department Administrative Assistant (352-392-2231).

Late or Missed Assignments: *There will be no make-up assignments without either prior approval or an official documented excuse.* Unexcused late assignments will be penalized 10% if they are turned in after the due date, and 10% more for each subsequent day. If you turn assignments in to my mailbox,

please send me an e-mail telling me as much, else I will mark it late based on when I find it. I do not go to my mailbox daily. 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>.

Electronic Devices: Cell phones and other communication devices must be set to silent or turned off. Calls cannot be made or accepted during class, and texting is not permitted.

Use of Generative AI: Unless an activity specifically requests the use of generative AI, you may not use this resource to create or augment assignments even with appropriate attribution.

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.” University of Florida students are bound by the Honor Pledge. On all work submitted for credit by a student, the following pledge is required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Student Honor Code and Conduct Code (Regulation 4.040) specifies a number of behaviors that are in violation of this code, as well as the process for reported allegations and sanctions that may be implemented. All potential violations of the code will be reported to Student Conduct and Conflict Resolution. If a student is found responsible for an Honor Code violation in this course, the instructor will enter a Grade Adjustment sanction which may be up to or including failure of the course. See <https://sccr.dso.ufl.edu/resources-by-audience/faculty-and-staff/honor-code-syllabi/> for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Withdrawal Policy: Students may withdraw from the course with the grade of W at any time prior to and including <month><day><year>.

Students with Disabilities: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started 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.

Counseling and Wellness Center: Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 352-392-1575; and the University Police Department: 352-392-1111 or 9-1-1 for emergencies.

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/>.

Course Materials Bibliography

- ❖ Bennett, J. O., Shostak, S., & Jakosky, S. (2007). *Life in the Universe*. (Pearson, Ed.) (1st ed.).
- ❖ Dodd, M. S., Papineau, D., Grenne, T., Slack, J. F., Rittner, M., Pirajno, F., ... Little, C. T. S. (2017). Evidence for early life in Earth's oldest hydrothermal vent precipitates. *Nature*, 543(7643), 60–64. <https://doi.org/10.1038/nature21377>
- ❖ Domagal-Goldman, S. D., Wright, K. E., Adamala, K., Arina de la Rubia, L., Bond, J., Dartnell, L. R., ... Wong, T. (2016). The Astrobiology Primer v2.0. *Astrobiology*, 16(8), 561–653. <https://doi.org/10.1089/ast.2015.1460>

- ❖ Eigenbrode, J. L., Summons, R. E., Steele, A., Freissinet, C., Millan, M., Navarro-González, R., ... Coll, P. (2018). Organic matter preserved in 3-billion-year-old mudstones at Gale crater, Mars. *Science*, 360(6393), 1096–1101. <https://doi.org/10.1126/SCIENCE.AAS9185>
- ❖ Falkowski, P. G. (2016). *Life's Engines: How Microbes Made Earth Habitable*. Princeton: Princeton University Press.
- ❖ Konhauser, K. (2007). *Introduction to Geomicrobiology*. Blackwell Science Ltd.
- ❖ Lyons, T. W., Reinhard, C. T., & Planavsky, N. J. (2014). The rise of oxygen in Earth's early ocean and atmosphere. *Nature*, 506(7488), 307–315. <https://doi.org/10.1038/nature13068>
- ❖ Killops, S., & Killops, V. (2005). *Introduction to Organic Geochemistry* (2nd ed.). Blackwell Publishing.
- ❖ Knoll, A. H., Canfield, D. E., & Konhauser, K. O. (Eds.). (2012). *Fundamentals of Geobiology*. Wiley-Blackwell.
- ❖ Konhauser, K. (2007). *Introduction to Geomicrobiology*. Blackwell Science Ltd.
- ❖ McKay, D. S., Gibson, E. K., Thomas-Keptra, K. L., Vali, H., Romanek, C. S., Clemett, S. J., ... Zare, R. N. (1996). Search for past life on Mars: possible relic biogenic activity in martian meteorite ALH84001. *Science (New York, N.Y.)*, 273(5277), 924–930. <https://doi.org/10.1126/SCIENCE.273.5277.924>
- ❖ Mix, L. J., Armstrong, J. C., Mandell, A. M., Mosier, A. C., Raymond, J., Raymond, S. N., ... ; (2006). The Astrobiology Primer: An Outline of General Knowledge - Version 1. *Astrobiology*, 6(5), 735–813. <https://doi.org/10.1089/ast.2006.6.735>
- ❖ Mojzsis, S. J., Arrhenius, G., McKeegan, K. D., Harrison, T. M., Nutman, A. P., & Friend, C. R. L. (1996). Evidence for life on Earth before 3,800 million years ago. *Nature*, 384(6604), 55–59. <https://doi.org/10.1038/384055a0>
- ❖ Slonczewski, J. L., & Foster, J. W. (2009). *Microbiology: An Evolving Science*. W.W. Norton & Co.

Tentative Schedule

**** This schedule is subject to change with appropriate prior notification. ****

Week	Dates	Topic	Readings	Assignments
1	01/05	[1] Microbial Properties & Diversity	The Missing Microbes, p9-22	Lab 1 Winogradsky Column I Reading Homework Microbiology due 1/12
			Microbiology p6-11 thru Sec 1.1, p27-36 Geochemical Cycling & Microbial Genetics	
2	01/12	[1] Microbial Properties & Diversity	Life in the Universe 1, p60-77	Lab 2 Reading Scientific Papers Reading Homework Organic Geochemistry 2 due 1/12
		[2] Microbial Metabolisms	Organic Geochemistry 2, p5-23	
3	01/19	[2] Microbial Metabolisms	Intro to Geomicrobiology, p47-92	Write Paper #1 critique 1/19 Reading Homework Intro to Geomicrobiology due 1/19
		Catch up & Review	Astrobiology Primer 1.0, p793-804 (Ch. 6 Diversity of Life)	
4	01/26	[3] Organic Geochemistry		Lab 3 CHONPS cycling Take Home Exam 1 (on topics [1] and [2]) due 1/28
5	02/02	[3] Organic Geochemistry	Organic Geochemistry 1, p30-60	Reading Homework Organic Geochemistry 1 due 2/02 Lab 4 Mass Spectrometry Write Paper #2 critique due 2/02
6	02/09	[4] Biomineralization	Fundamentals of Geobiology, p105-125	Reading Homework Fund'ls of Geobiology due 2/09 Lab 5 Spectroscopy Write Paper #3 critique due 2/09
7	02/16	[4] Biomineralization		Write Paper #4 critique due 2/16
		Catch up & Review		

8	02/23	[5] Microbial Weathering		Lab 6 Carbonate Mineralization Take Home Exam 2 (on topics [3] and [4]) due 2/25
9	03/02	[5] Microbial Weathering	Life in the Universe 2, p114-130	Reading Homework Life in the Universe 2 due 3/02 Lab 7 Microbial Weathering Write Paper #5 critique due 3/02
	03/09	<i>Spring Break</i>		
10	03/16	[6] Early Microbial Life	Astrobiology Primer 1.0, p756-765 (2D Early Earth Environments)	Lab 8 Winogradsky Column II Reading Homework Astrobiology Primer 1 due 3/16
11	03/23	[6] Early Microbial Life Catch up & Review		Write Paper #6 critique due 3/23
12	03/30	[7] Biosignature Detection	Astrobiology Primer 2.0, p613-623 (Ch. 7)	Lab 9 Biosignature Detection on Earth and Mars Reading Homework Astrobiology Primer 2 due 3/30 Take Home Exam 3 (on topics [5] and [6]) due 4/01
13	04/06	[7] Biosignature Detection		Lab 10 Winogradsky Column III
14	04/13	[7] Biosignature Detection [8] Astrobiology	Astrobiology Primer 1.0, p777-780 (4E Chemical Fossils) & p780-783 (4F Paleontology)	Write Paper #7 critique due 4/13
15	04/20	[8] Astrobiology		Write Paper #8 critique due 4/20

Paper 1 McKay 1996

Paper 2 Ruff & Farmer 2016

Paper 3 Eigenbrode 2018

Paper 4 Lalonde 2012

Paper 5 Chan 2004

Paper 6 Menez 2018

Paper 7 Allwood 2018

Paper 8 Dodd 2017

Course|New for request 20560

Info

Request: IND 6973 Project in Lieu of Thesis

Description of request: Request to create new course IND 6973 Project in Lieu of Thesis course to support our request to allow a Project in Lieu of Thesis for the Master of Interior Design degree program.

Submitter: Sheila Bosch sheilabosch@dcp.ufl.edu

Created: 10/30/2024 10:51:07 AM

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:

IND

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:

973

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:

Project in lieu of Thesis

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:

Project in lieu of Thesis

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:
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:
3

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:

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:

Thesis/Dissertation Supervision

- 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:

Performance Indiv Instruction

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.

Response:

Completion of an original research-informed design project that addresses an identified issue or need with the field of Interior Design that satisfies departmental requirements for a Project in Lieu

of Thesis (PILOT). A PILOT is based on a specific design-focused topic that results in a written description of the problem identified and its significance, a synthesis of relevant literature, a description of programmatic considerations, proposed design solutions, and implications.

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 department

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

**

• 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:

Requesting a PILOT option for Master of Interior Design students, which necessitates substitution of IND 6973 for IND 6971.

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 refine an important design-focused question or problem for exploration;
- Conduct a review of pertinent literature that supports this project;
- Determine programmatic and other project parameters;
- Develop an appropriate approach for exploring research-informed design solutions to address the question or problem identified;
- Integrate the knowledge acquired through research and exploration into rendered proposed design solutions;
- Develop a supporting paper that documents the problem identified and its significance, a synthesis of relevant literature, a description of programmatic considerations, proposed design solutions, and implications; and,
- Defend the final project in front of his/her project committee in a meeting open to the public with announcement sent/posted to academic peers and public 7-10 days prior to defense.

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:

N/A

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 Project topic review and refinement, Review UF Graduate School Deadlines, <https://success.grad.ufl.edu/td/deadlines/>. Schedule check-in meetings with Chair
- 2 Timeline Proposed completion timeline, including submissions to Chair/Committee, defense date, submission to Graduate School
- 3 Introduction and literature review update Revised introduction and literature review
- 4 Approach Revised approach
- 5 Design and implications Finalized design proposal and implications
- 6 Finalize document draft Final draft of document to committee
- 7 Finalizing and communicating progress Announcement sent to public 7-14 days prior to defense. (approval of chair) Progress Meeting (check in with committee members-all)
Update calendar as needed to submit draft to chair and committee
- 8 Oral defense final preparation (document and presentation) Defense presentation for review by Chair
- 9 Oral defense finalization (document and presentation) Oral defense (on MID Defense Day)
- 10 Finalizing and communicating your project Oral defense deadline
<https://gradcatalog.ufl.edu/graduate/calendar/>
- 11 Finalizing and communicating your project Edited document
- 12 Finalizing and communicating your project Edited document
- 13 Finalizing and communicating your project DEADLINE: Final PDF to Chair and Graduate Office (approval of Chair)
- 14 Finalize all to be cleared for graduation Final PDF to Chair and Graduate Office (approval of Chair)
- 15 Finalize all to be cleared for graduation Final PDF to Chair and Graduate Office (approval of Chair)
- 16 Finalize all to be cleared for graduation Final PDF to Chair and Graduate Office (approval of Chair)

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 - The final grade will be based on the quality of the completed written document and defense. To receive an "S," the student must successfully defend his or her project and submit all required supporting materials to the project committee chair and Graduate School.

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 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

Accommodations

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 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>

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/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/>.

Response:

Yes

IND 6973 Project in Lieu of Thesis

6 Credits

MEETING TIMES: TBD

Instructor: TBD

Course Communications:

The preferred method of communication in this course is email. To meet the instructors during their office hours, you will need to schedule a specific time through e-mail. Include course # in the email subject line. For technical assistance, please contact the help desk at

<https://it.ufl.edu/helpdesk/>.

Textbooks:

Appropriate handouts, including guidelines, code information, research articles, web-based software, and book excerpts will be provided to support material for each project. In addition, each student is responsible for seeking additional resources to support their design intent, development, and innovation.

Materials and Supplies Fees:

None

Course Description:

Completion of an original research-informed design project that addresses an identified issue or need with the field of Interior Design that satisfies departmental requirements for a Project in Lieu of Thesis (PILOT). A PILOT is based on a specific design-focused topic that results in a written description of the problem identified and its significance, a synthesis of relevant literature, a description of programmatic considerations, proposed design solutions, and implications.

Prerequisite Knowledge and Skills:

Departmental approval

Course Objectives:

Students will be able to:

1. Identify and refine an important design-focused question or problem for exploration;
2. Conduct a review of pertinent literature that supports this project;
3. Determine programmatic and other project parameters;
4. Develop an appropriate approach for exploring research-informed design solutions to address the question or problem identified;
5. Integrate the knowledge acquired through research and exploration into rendered proposed design solutions;

6. Develop a supporting paper that documents the problem identified and its significance, a synthesis of relevant literature, a description of programmatic considerations, proposed design solutions, and implications; and,
7. Defend the final project in front of his/her project committee in a meeting open to the public with announcement sent/posted to academic peers and public 7-14 days prior to defense.

Instructional Methods:

Learning in this course will occur mainly through project reviews and desk critiques. Projects are designed to meet student learning outcomes of this course through a variety of deliverables. Supporting lectures and workshops will be provided by faculty and guests. Working in the studio is essential, as it establishes a collective energy for the design process and fosters creative exchanges between students. Design work should be completed during the studio meetings. Group work is encouraged to increase the quality of your daily work.

Grading Policies:

S/U - The final grade will be based on the quality of the completed written document and defense. **A grade of S is equal to a C (2.0) or better.** Grades earned under the S/U option do not carry grade point values and are not computed in the University of Florida grade point average. Courses with a grade of S will count as credits earned in a degree program. Such grades are included in the student's permanent academic record and are reflected on the transcript. **After the S/U option is approved, the grade cannot revert to a letter grade.** *Other academic institutions and agencies may interpret a grade of U as a failing grade.*

This course will follow the policies on the UF Graduate Catalog:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

COURSE POLICIES

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 Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the UF Conduct Code website for more information (<https://sccr.dso.ufl.edu/process/student-conduct-code/>). If you have any questions or concerns, please consult with the instructor or TAs in this class.

Classroom Climate:

Equitable participation in this class requires the use of inclusive language, methods, and materials. Students are expected to use inclusive language in written and oral work, and to respect diversity

in viewpoints expressed by others. Students are also encouraged to identify language, methods, and materials used in this course that do not contribute to an inclusive classroom climate.

Student It Support Services:

For any technical issues you encounter with your course please contact the UF computing Help Desk at 342-392-HELP (4357), select option 2. For Help Desk hours visit: Information Technology– UF Computing Help Desk (<http://helpdesk.ufl.edu>).

Project Due Dates:

All assignments - completed or incomplete - must be submitted on the due date and will be graded as they stand. No projects will be accepted late. The right to make an exception will be reserved only in extreme cases (due to emergencies). In such cases, the instructor must be notified in advance by email. For the exceptional case, a delay of over one week will not be accepted.

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/ugrad/current/regulations/info/attendance.aspx>

Special Accommodations:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the “Get Started With the DRC” webpage (<https://disability.ufl.edu/get-started/>) on the Disability Resource Center site. 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.

Student Work:

The Department of Interior Design reserves the right to retain any student work completed in the curriculum for accreditation purposes.

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/>.

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.

CAMPUS RESOURCES:

Health and Wellness Resources

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 (<https://umatter.ufl.edu/>) 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 (<https://counseling.ufl.edu/>) 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 (<https://shcc.ufl.edu/>) .

University Police Department: Visit UF Police Department website (<https://police.ufl.edu/>) 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 (<https://ufhealth.org/locations/uf-health-shands-emergency-room-trauma-center/>).

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website (<https://gatorwell.ufsa.ufl.edu/>) 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. <https://career.ufl.edu/>

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email ask@ufl.libanswers.com for more information. <https://uflib.ufl.edu/>

Teaching Center: 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring. <https://umatter.ufl.edu/office/teaching-center/>

Writing Studio: Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>

Academic Complaints: Office of the Ombuds; Visit the Complaint Portal webpage for more information. <https://www.ombuds.ufl.edu/complaint-portal/>

Enrollment Management Complaints (Registrar, Financial Aid, Admissions): View the Student Complaint Procedure webpage for more information. <https://em.ufl.edu/complaint>

Course Schedule:

A Weekly Schedule of Topics and Assignments:

For detailed schedule of assignments and class activities, see course Schedule on Canvas. Disclaimer: This schedule represents current plans and objectives. **As we go through the semester, those plans may need to change to enhance learning opportunities.**

IND 6973 - Course Schedule

This calendar is a general outline of the course. Instructors reserve the right to alter the course in response to academic conditions and opportunities. Instructors may add additional assignments, as part of studio participation grade, to ensure satisfactory progress.

WK	Topics / Activities	Due
1	Project topic review and refinement Review UF Graduate School Deadlines https://success.grad.ufl.edu/td/deadlines/	Schedule check-in meetings with Chair
2	Timeline	Proposed completion timeline, including submissions to Chair/Committee, defense date, submission to Graduate School
3	Introduction and literature review update	Revised introduction and literature review
4	Approach	Revised approach
5	Design and implications	Finalized design proposal and implications
6	Finalize document draft	Final draft of document to committee
7	Finalizing and communicating progress	Announcement sent to public 7-10 days prior to defense. (approval of chair)

		Progress Meeting (check in with committee members-all) Update calendar as needed to submit draft to chair and committee
8	Oral defense final preparation (document and presentation)	Defense presentation for review by Chair
9	Oral defense finalization (document and presentation)	Oral defense (on MID Defense Day)
10	Finalizing and communicating your project	Oral defense deadline https://gradcatalog.ufl.edu/graduate/calendar/
11	Finalizing and communicating your project	Edited document
12	Finalizing and communicating your project	Edited document
13	Finalizing and communicating your project	DEADLINE: Final PDF to Chair and Graduate Office (approval of Chair)
14	Finalize all to be cleared for graduation	Final PDF to Chair and Graduate Office (approval of Chair)
15	Finalize all to be cleared for graduation	Final PDF to Chair and Graduate Office (approval of Chair)
16	Finalize all to be cleared for graduation	Final PDF to Chair and Graduate Office (approval of Chair)

Course|New for request 20616

Info

Request: JST 6XXX The Holocaust in the Courtroom

Description of request: Graduate course proposal for one course for the prospective MA Program in Jewish Studies

Submitter: Norman Goda goda@ufl.edu

Created: 11/25/2024 8:42:41 AM

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:
JST

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:

The Holocaust in the Courtroom

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:

Holocaust Courtroom

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.

Response:
Introduces M.A. and Ph.D. students in humanities and social sciences to the major postwar trials concerning the Holocaust. Major questions concern the relevant laws under which perpetrators were tried; ways in which the Holocaust was represented through prosecution, documentary and visual evidence, and testimony; and the ways in which national memory affected outcomes of major trials.

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 status

Completing Prerequisites on UCC forms:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

- 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 Shorstein Center for Jewish Studies is creating an MA program in Jewish Studies. The Center has a national reputation for Holocaust Studies, and we would like to have at least three graduate courses in this area. This particular course reflects the heavy scholarly interest in the past twenty years in postwar justice and memory. Postwar justice is my own specialization, so students working under my supervision will want this course. The university also has a lot of trial material in its library and archival collections.

Course Objectives

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

Response:

Student Learning Outcomes:

Knowledge: Students will know the major postwar trials concerning the Holocaust, as well as the legal and political problems incumbent on atrocity trials in different venues and different times.

Skills: Students will be able to organize and evaluate types of evidence (documentary, witness testimony, visual sources) used in atrocity trials.

Skills They will be able to test evidence used in Holocaust and atrocity trials as historical sources, not simply as trial evidence.

Professional Behavior: Students will be able to research and discuss, in speech and in writing, the legal and political problems of atrocity trials.

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:

Hague Conventions IV of 1907 and Geneva Conventions of 1929

James Willis, *Prologue to Nuremberg: The Politics and Diplomacy of Punishing Criminals of the First World War* (Westport, CT, 1982), Chapters 3-4.

Gerd Hankel, *The Leipzig Trials German War Crimes and Their Legal Consequences after World War I*. (Hamburg, 2003), 91-142

Carolyn J. Dean, *The Moral Witness: Trials and Testimony After Genocide* (Ithaca, NY, 2019), 26-61.

David Engel, ed., *The Assassination of Symon Peliura and the Trial of Sholem Schwarzbard, 1926-1927: A Selection of Documents* (Göttingen: Vandenhoeck & Rupprecht, 2016), 7-94

Alexander Prusin, "Fascist Criminals to the Gallows: The Holocaust and Soviet War Crimes Trials, December 1945-February 1946." *Holocaust and Genocide Studies*, v.17, n. 1 (2003): 1-30.

Andrew Kornbluth, *The August Trials: The Holocaust and Postwar Justice in Poland* (Cambridge, MA: Harvard University Press, 2021), 1-36, 103-159.

Kim Christian Priemel, *The Betrayal: The Nuremberg Trials and German Divergence* (New York, 2016), 60-84.

James Loeffler, *Rooted Cosmopolitans: Jews and Human Rights in the Twentieth Century* (New Haven: Yale University Press, 2018), 83-142

John Cooper, *Raphael Lemkin and the Struggle for the Genocide Convention* (Houndsmills: Palgrave Macmillan, 2008), 56-87

International Military Tribunal, *Trial of the Major War Criminals (Nuremberg, 1947)*, v. 1, 8-18 (Nuremberg Charter), 27-93 (Nuremberg Indictment)

Kim Christian Priemel, *The Betrayal: The Nuremberg Trials and German Divergence* (New York, 2016), 100-150

Lawrence Douglas, *The Memory of Judgment: Making Law and History in the Trials of the Holocaust* (New Haven, 2001), 11-94.

Francine Hirsch. *Soviet Judgment at Nuremberg: A New History of the International Military Tribunal After World War II* (Oxford: Oxford University Press, 2020), 17-134.

Film: *Nazi Concentration Camps (1945)*, VIMEO

Laura Jokusch and Gabriel N. Finder, "Revenge, Retribution, and Reconciliation in the Postwar Jewish World," and David Engel, "Why Punish Jewish Collaborators?" in *Jewish Honor Courts: Revenge, Retribution, and Reconciliation after the Holocaust*, ed. Laura Jokusch and Gabriel N. Finder (Detroit, 2015), 1-49

Dan Porat, *Bitter Reckoning: Israel Tries Holocaust Survivors as Nazi Collaborators* (Cambridge, MA, 2019), 67-80

Dan Porat, "Changing Legal Perceptions of 'Nazi Collaborators' in Israel, 1950-1972," in *Jewish Honor Courts: Revenge, Retribution, and Reconciliation after the Holocaust*, ed. Laura Jokusch and Gabriel N. Finder (Detroit, 2015), 279-303

Tom Segev, *The Seventh Million: The Israelis and the Holocaust* (New York: Picador, 2000), 255-320

Yechiam Weitz. *The Man Who War Murdered Twice: The Life, Trial, and Death of Israel Kasztner* (Jerusalem: Yad Vashem, 2011), 15-31, 115-326.

Deborah Lipstadt, *The Eichmann Trial* (New York, 2011).

Richard J. Goldan and Sarah M. Misemer, eds., *The Trial That Never Ends: Hannah Arendt's Eichmann in Jerusalem in Retrospect* (Toronto: University of Toronto Press, 2017): Selected Essays: Russell A. Berman, "Arendt's Conservatism and the Eichmann Judgment," Selya Benhabib, "Whose Trial? Adolf Eichman's or Hannah Arendt's? The Eichmann Controversy Revisited."

Katherina von Kellenbach, "Vanishing Acts: Perpetrators in Postwar Germany," *Holocaust and Genocide Studies* v. 17, n. 2 (2003), 305-29

Mary Fulbrook, *Reckonings: Legacies of Nazi Persecution and the Quest for Justice* (New York, 2018), 231-265

Henry Friedlander, "The Deportation of the German Jews: Postwar German Trials of Nazi Criminals, *Leo Baeck Institute Yearbook* 1984, 201-25

Rebecca Wittmann, *Beyond Justice: The Auschwitz Trial* (Cambridge, MA, 2012).

Julian Jackson, *France on Trial: The Case of Marshal Pétain* (Cambridge, MA, 2023), 40-282

Alain Finkielkraut, *Remembering in Vail: The Klaus Barbie Trial and Crimes Against Humanity* (New York, 1992)

Lawrence Douglas, *The Right Wrong Man: John Demjanjuk and the Last Great Nazi War Crimes Trial* (New York: 2016).

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:

The General Problems of Atrocity and Law

Week 1: War, Law, and Politics: An Introduction

Week 2: Toward a Legal Standard: The Hague and Geneva Conventions and the Leipzig Trials

Week 3: Vigilante Justice: The Tehlirian and Schwartzbard Trials

Toward Nuremberg

Week 4: Rough Justice after World War II: Eastern Europe

Week 5: The Road to Nuremberg

Week 6: Nuremberg and its Problems

Israel, Justice, and Memory

Week 7 Jews, Honor, and the Law

Week 8: "The Kasztner Trial"

Week 9: The Eichmann Trial (I): The Law and the Trial

Week 10: The Eichmann Trial (II) Arendt and the Banality of Evil

Germany, Justice, and Memory

Week 11: The Germans and Crimes Against Humanity

Week 12: The Frankfurt Auschwitz Trial

France, Justice and Memory

Week 13: France and Vichy: The Trial of Pétain

Week 14: The Klaus Barbie Trial

Postscript: Demjanjuk in the US, Israel, and Germany

Week 15: The Demjanjuk Case(s)

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:

Numerical grading scale as follows:

A 93-100%

A- 90-92%

B+ 87-89%

B 83-86%

B- 80-82%

C+ 77-79%

C 73-76%

C- 70-72%

D+ 67-69%

- D 63-66%
- D- 60-62%
- E Below 60%

Graded work is as follows (rubrics are on the attached syllabus)

1) Weekly Short-Writing Assignments of 750 words each based solely on reading for upcoming class: Students must write a summary of the trial to be discussed that week answering three questions: What was the law under which the trial was held? What were the political complications around the trial? Was justice done to the defendant and why? Students must choose ten weeks in all in which to write these papers -- 50% of total grade in aggregate, 5% each paper.

2) Weekly discussions and class participation: 30% of final grade: Top ten discussions calculated for final grade. 3% per calculated discussion. Students must be present. One absence is allowed without penalty to grade. After that students will lose 2 points from final discussion grade for each discussion missed.

3) Final Research paper 20% of Final grade. Students must locate a trial that we have NOT discussed. They must write a paper of 5,000 words that analyzes the trial and which must address the following issues.

On what law was the trial based? Were their flaws in the statutes in your view?
How did the national/international political situation in which the trial was held affect the nature of the trial or not?
What was the trial's relationship to history; that is, did it "write" the history of its subject accurately? Did it produce valuable historical sources in terms of testimony?
What was the trial's relationship to justice; that is, was justice done to the defendants? To the victims? To the representation of events themselves?
How should we understand the trial within the broad continuum of Holocaust justice? Was it a meaningful contribution? Why or why not?

Students will use primary sources in the Price Judaica Library, the Lawton Chiles Law Library, and/or online. These sources can include trial transcripts, newspaper accounts of the trial, and contemporary analysis. They can use secondary sources when applicable. They must choose their topic by week 6 in the semester and discuss research strategy with the instructor. In some cases the students can choose another atrocity trial centering on Yugoslavia, Rwanda, or elsewhere for which the trial sources are all at the relevant court's website. Students are encouraged to use sources in other languages in which they can read, including German, French, Polish, Hebrew, and Yiddish.

Instructor(s)

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

Response:
Norman JW Goda

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy. A required 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

Accommodations

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 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>

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/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/>.

* *

Response:
Yes

JST 6XXX
Graduate Seminar
The Holocaust in the Courtroom
Fall 2025

Norman JW Goda

goda@ufl.edu

200 Walker Hall

352-392-2168

Office Hours: M 9-10, TH 1-2

And by appointment

Course description:

Introduces M.A. and Ph.D. students in humanities and social sciences to the major postwar trials concerning the Holocaust. Major questions concern the relevant laws under which perpetrators were tried; ways in which the Holocaust was represented through prosecution, documentary and visual evidence, and testimony; and the ways in which national memory affected outcomes of major trials.

This graduate seminar will examine major criminal trials of Holocaust perpetrators under international, Soviet, Polish, Israeli, German, French and US authorities. Holocaust proceedings, like all trials of mass international atrocities, are not normal criminal trials. Owing to the scope and nature of the crime, they reflect a conflict between justice, politics, national identity, and understandings of history. Holocaust trials were only a partial success. The course offers guides to understanding the legal problems and the representational problems of Holocaust trials, and thus the problems of international justice more generally.

Student Learning Outcomes:

- Knowledge: Students will know the major postwar trials concerning the Holocaust, as well as the legal and political problems incumbent on atrocity trials in different venues and different times.
- Skills: Students will be able to organize and evaluate types of evidence (documentary, witness testimony, visual sources) used in atrocity trials.
- Skills: Students will be able to test evidence used in Holocaust and atrocity trials as historical sources, not simply as trial evidence.
- Professional Behavior: Students will be able to research and discuss, in speech and in journal-quality writing, the legal and political problems of atrocity trials.

Students will also become conversant in the following themes.

- The emergence of international laws of war and the effort to apply these laws to criminal acts committed in wartime.
- Efforts to create a legal international order in the late nineteenth and early twentieth centuries.
- Efforts at “rough justice,” ranging from failed trials after World War I to vigilante justice after the Armenian genocide and the Russian pogroms, and localized trials in Eastern Europe.
- The Nuremberg trials and the treatment of war crimes and the Holocaust in these trials.
- National trials of the postwar period in Israel, Germany, and France, and the effort to establish a historical narrative through the political milieu in each of these countries.
- The movement from Cold War to post-Cold War in the trial(s) of Ivan Demjanjuk in the US, Israel, and Germany.

Books to Consider for Purchase:

Most of the reading will come from scholarly articles or chapters from books and will be posted on Canvas. The following, however, we will read in their entirety, and you might consider purchasing them. All are available used for good prices.

Lawrence Douglas, *The Memory of Judgment: Making Law and History in the Trials of the Holocaust* (New Haven, 2001), 11-94.

Deborah Lipstadt, *The Eichmann Trial* (New York, 2011).

Rebecca Wittmann, *Beyond Justice: The Auschwitz Trial* (Cambridge, MA, 2012).

Alain Finkielkraut, *Remembering in Vain: The Klaus Barbie Trial and Crimes Against Humanity* (New York, 1992)

The grading scale is as follows:

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

Further information on UF grade point policies can be found [here](#).

Your grade in this class will be determined by the following (note the grading rubrics):

1) Weekly Short-Writing Assignments of 750 words each based solely on reading for upcoming class: Students must write a summary of the trial to be discussed that week answering three questions. They are due one hour before class begins.

- **What was the law under which the trial was held?**
- **What were the political complications around the trial?**
- **Was justice done to the defendant and why?**

Students must choose ten weeks in all in which to write these papers -- 50% of total grade in aggregate, 5% each paper. Grading rubric is as follows:

Category	A-Range	B-Range	C-Range	D/F Range
Legal/historical accuracy and analysis 34%:	Shows an exceptional understanding of the legal principles governing war crimes, accurately applying these to specific trials. Provides deep historical context and analysis. Insightful, original analysis of trials and their impact on international law. Nuanced discussion of ethical, legal, and	Mostly accurate in applying legal principles, but may have some minor inaccuracies or lack the depth of contextual analysis. Strong analysis but may lack originality or depth in some sections. Provides thoughtful arguments, though some may be underdeveloped. Generally well-organized	Shows basic understanding but with notable inaccuracies or oversimplification of key legal concepts or historical details. Arguments are basic and somewhat superficial. Little original thought, with minimal critical engagement with complex issues	Significant inaccuracies in legal principles or historical context. Misinterprets core legal concepts or events. Fails to engage with key ethical or legal dilemmas in a meaningful way. . Fails to engage with key ethical or legal dilemmas in a meaningful

	political issues. Demonstrates a high level of critical thinking and synthesis of perspectives.	but may have occasional structural issues or uneven flow between sections		way. Little to no critical thinking displayed.
Organization and Structure 33%:	Exceptionally well-organized. Clear, logical flow with strong transitions between sections. Each part of the paper builds on previous sections to develop a cohesive argument. Exceptionally well-organized. Clear, logical flow with strong transitions between sections. Each part of the paper builds on previous sections to develop a cohesive argument.	Generally well-organized but may have occasional structural issues or uneven flow between sections. S Generally clear and readable but lacks the polish of an A-level paper.	Structure is adequate but may feel disjointed in places. Transitions between ideas are weak or unclear.	Lacks coherent argumentation. Paper lacks clear organization. Poorly structured with no logical progression of ideas.
Writing and Form 33%:	Impeccable writing, with a professional tone. Free from grammatical, spelling, or stylistic errors. Writing is clear, concise, and engaging. Flawless adherence to citation style (Chicago). Bibliography and footnotes are meticulously formatted.	Strong writing with few grammatical or stylistic errors. Citations are mostly accurate, with some minor formatting errors. Bibliography is complete but may lack polish.	Writing is readable but contains frequent grammatical errors or unclear phrasing. Style may be too informal or inconsistent. Several citation or formatting errors. Inconsistent or incomplete bibliography or footnotes.	Writing is unclear, riddled with grammatical and spelling errors. Style is inappropriate for an academic paper. Significant errors or missing citations. Failure to follow required citation style or incomplete references.

2) Weekly discussions and class participation: 30% of final grade: Top ten discussions calculated for final grade. 3% per calculated discussion. Grading rubric is as follows. See attendance policy below.

Category	A-Range	B-Range	C-Range	D/E Range
Understanding and analysis of the trial and the key legal and historical issues (33%):	Demonstrates a deep understanding of the specific trial being discussed. Articulates key legal principles, historical context, and ethical dilemmas clearly and insightfully. Engages with complex ideas and accurately interprets primary and secondary	Displays a good understanding of the trial but may overlook minor details or nuances. Demonstrates knowledge of legal and historical context but lacks deeper insight or originality. Provides a solid analysis but lacks deeper critical engagement. Covers the	Basic understanding of the trial but with notable gaps in comprehension. Limited engagement with legal or historical implications. Minimal use of sources or surface-level analysis. Presents limited or underdeveloped analysis. Mostly descriptive, with	Shows little to no understanding of the trial. Misinterprets or ignores key legal and historical aspects. Fails to engage with the primary material or assigned readings. Lacks meaningful analysis. Discussion is purely descriptive or off-topic. No critical thinking

	sources related to the trial. Offers thoughtful, original analysis of the trial, engaging with the ethical, legal, and historical implications. Critically examines multiple perspectives, questioning underlying assumptions, and offering nuanced arguments.	major points well but may not question assumptions or fully explore alternate perspectives.	little critical thinking. Fails to engage deeply with ethical or legal issues.	or engagement with the trial's legal and historical significance.
Engagement with weekly course materials (33%):	Effectively incorporates assigned readings and relevant outside sources into the discussion. Demonstrates an ability to synthesize material and connect it to the trial being discussed. Cites sources accurately.	Uses assigned readings but may not fully integrate them into the discussion. References some materials but without depth of synthesis or full understanding of their relevance.	Minimal use of course materials. Limited connection between readings and the discussion topic. Fails to engage with sources in a meaningful way.	Engagement with weekly course materials (33%): Does not reference or incorporate course materials. No evidence of engagement with assigned readings or other sources.
Engagement with the other students and quality of participation (33%):	Actively engages with peers' ideas in a respectful and meaningful way. Builds on others' points, offers constructive feedback, and poses thoughtful questions to further the discussion. Encourages deeper reflection and dialogue. Contributions are consistently clear, relevant, and well-argued. Adds new perspectives to the discussion and stays on topic. Demonstrates leadership in advancing the conversation.	Responds to peers but may not consistently offer deeper insights. Engages with others' ideas but without fully advancing the discussion or providing substantial feedback. Contributions are relevant and clear, but may lack depth or new insights. Stays on topic but does not consistently lead or advance the conversation.	Minimal interaction with peers. Responds to comments but in a superficial way, with little engagement or critical thought. Contributions are minimal and lack clarity or relevance. Somewhat off-topic or unclear, without adding significantly to the discussion.	Engagement with other students and quality of participation (34%): Fails to engage meaningfully with peers. Little to no participation in the dialogue. Responses, if present, are brief and unengaged. Contributions are unclear, irrelevant, or absent. Fails to engage in a meaningful or focused way.

3) Final Research paper 20% of Final grade: Students must locate a trial that we have NOT discussed. They must write a paper of 5,000 words that analyzes the trial and which must address the following issues.

- On what law was the trial based?
- How did the national/international political situation in which the trial was held affect the nature of the trial or not?
- What was the trial's relationship to history; that is, did it "write" the history of its subject accurately? Did it produce valuable historical sources in terms of testimony?
- What was the trial's relationship to justice; that is, was justice done to the defendants? To the victims? To the representation of events themselves?
- How should we understand the trial within the broad continuum of Holocaust justice? Was it a meaningful contribution? Why or why not?

Students will use primary sources in the Price Judaica Library, the Lawton Chiles Law Library, and/or online. These sources can include trial transcripts, newspaper accounts of the trial, and contemporary analysis. Students are to incorporate secondary sources when applicable. Students must choose their topic by week 6 in the semester and discuss research strategy with the instructor. In some instances, students can choose another atrocity trial centering on Yugoslavia, Rwanda, or elsewhere for which the trial sources are all at the relevant court's website. Students are encouraged to use sources in other languages in which they can read, including German, French, Polish, Hebrew, and Yiddish. **The paper must be submitted on the final day of exam week. Grading rubric is as follows:**

Category	A-Range	B-Range	C-Range	D/E Range
Research 25%:	Demonstrates exceptional research with a wide array of primary sources (trial transcripts, legal documents) and secondary sources (academic journals, historical works). Strong integration of legal, historical, and, where applicable, literary and even film works.	Well-researched but may rely more heavily on secondary sources. Some gaps in variety of sources or depth of analysis of primary sources.	Adequate research, but lacks depth in key areas. Relies too much on secondary sources with limited use of primary documents.	Poor research. Insufficient or inappropriate sources. Fails to include critical primary and/or secondary sources.
Legal/historical accuracy and analysis 25%:	Shows an exceptional understanding of the legal principles governing war crimes, accurately applying these to specific trials. Provides deep historical context and analysis. Insightful, original analysis of trials and their impact on international law. Nuanced discussion of ethical, legal, and political issues. Demonstrates a high level of critical thinking and synthesis of perspectives.	Mostly accurate in applying legal principles, but may have some minor inaccuracies or lack the depth of contextual analysis. Strong analysis but may lack originality or depth in some sections. Provides thoughtful arguments, though some may be underdeveloped. Generally well-organized but may have occasional structural issues or uneven flow between sections.	Shows basic understanding but with notable inaccuracies or oversimplification of key legal concepts or historical details. Arguments are basic and somewhat superficial. Little original thought, with minimal critical engagement with complex issues	Significant inaccuracies in legal principles or historical context. Misinterprets core legal concepts or events. Fails to engage with key ethical or legal dilemmas in a meaningful way. . Fails to engage with key ethical or legal dilemmas in a meaningful way. Little to no critical thinking displayed.
Organization and Structure 25%:	Exceptionally well-organized. Clear, logical flow with strong transitions between sections. Each part of the paper builds on previous sections to develop a cohesive argument. Exceptionally well-organized. Clear, logical flow with strong transitions between sections. Each part of the paper builds on previous	Generally well-organized but may have occasional structural issues or uneven flow between sections. Generally clear and readable but lacks the polish of an A-level paper.	Structure is adequate but may feel disjointed in places. Transitions between ideas are weak or unclear.	Lacks coherent argumentation. Paper lacks clear organization. Poorly structured with no logical progression of ideas.

	sections to develop a cohesive argument.			
Writing and Form 25%:	Impeccable writing, with a professional tone. Free from grammatical, spelling, or stylistic errors. Writing is clear, concise, and engaging. Flawless adherence to citation style (Chicago). Bibliography and footnotes are meticulously formatted.	Strong writing with few grammatical or stylistic errors. Citations are mostly accurate, with some minor formatting errors. Bibliography is complete but may lack polish.	Writing is readable but contains frequent grammatical errors or unclear phrasing. Style may be too informal or inconsistent. Several citation or formatting errors. Inconsistent or incomplete bibliography or footnotes.	Writing is unclear, riddled with grammatical and spelling errors. Style is inappropriate for an academic paper. Significant errors or missing citations. Failure to follow required citation style or incomplete references.

Class policies:

Attendance:

You are to be present in each class, and you are to arrive on time. One absence is allowed without penalty to grade. After that students will lose 2 points from final discussion grade for each discussion missed. There are exceptions for documented illnesses, serious accidents, military service, and matters of that nature. Please see the UF attendance policies [here](#).

Accommodations:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the [“Get Started With the DRC”](#) webpage on the Disability Resource Center site. 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

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. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.

Teaching Center: 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring. More information [here](#).

Writing Studio: Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers. More information [here](#).

Academic Complaints: Office of the Ombuds; Visit the Complaint Portal webpage for more information.

Enrollment Management Complaints (Registrar, Financial Aid, Admissions): View the Student Complaint Procedure webpage for more information.

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learningsupport@ufl.edu. <https://lss.at.ufl.edu/help.shtml>.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/> (Links to an external site.)

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 Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. [See the UF Conduct Code website for more information.](#)

Student Evaluations of This Course

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/>.

Electronics:

You can bring your cell phone, but it must be silenced and it cannot be used in class. You can use your computer to take notes and look up relevant materials, but not for other purposes.

Class Schedule

Part I:

Toward a Legal Order

Week 1: War, Law, and Politics: An Introduction

Week 2: Toward a Legal Standard: The Hague and Geneva Conventions and the Leipzig Trials

Reading for Week 2: Hague Conventions IV of 1907 and Geneva Conventions of 1929 (On Canvas); James Willis, *Prologue to Nuremberg: The Politics and Diplomacy of Punishing Criminals of the First World War* (Westport, CT, 1982). Chapters 3-4 (On Canvas). Gerd Hankel, *The Leipzig Trials German War Crimes and Their Legal Consequences after World War I*. (Hamburg, 2003), 91-14 (Hamburg: Hamburger Editionen, 2003), 91-142.

Week 3: Vigilante Justice: The Tehlirian and Schwartzbard Trials

Reading for Week 3: Carolyn J. Dean, *The Moral Witness: Trials and Testimony After Genocide* (Ithaca, NY, 2019), 26-61. (Canvas); David Engel, ed., *The Assassination of Symon Peliura and the Trial of Sholem Schwarzbard, 1926-1927: A Selection of Documents* (Göttingen: Vandenhoeck & Rupprecht, 2016), 7-94 (Canvas).

Part II:

To Nuremberg and Afterwards

Week 4: Rough Justice after World War II: Eastern Europe

Reading for Week 4: Alexander Prusin, “Fascist Criminals to the Gallows: The Holocaust and Soviet War Crimes Trials, December 1945-February 1946.” *Holocaust and Genocide Studies*, v.17, n. 1 (2003): 1-30; Andrew Kornbluth, *The August Trials: The Holocaust and Postwar Justice in Poland* (Cambridge, MA: Harvard University Press, 2021), 1-36, 103-159. All on Canvas.

Week 5: The Road to Nuremberg

Reading for Week 5: Kim Christian Priemel, *The Betrayal: The Nuremberg Trials and German Divergence* (New York, 2016), 60-84; James Loeffler, *Rooted Cosmopolitans: Jews and Human Rights in the Twentieth Century* (New Haven: Yale University Press, 2018), 83-142; John Cooper, *Raphael Lemkin and the Struggle for the Genocide Convention* (Houndsmills: Palgrave Macmillan, 2008), 56-87; International Military Tribunal, *Trial of the Major War Criminals* (Nuremberg, 1947), v. 1, 8-18 (Nuremberg Charter), 27-93 (Indictment – skim to get sense of the criminal counts). All on Canvas.

Week 6: Nuremberg and its Problems

Reading for Week 6: Kim Christian Priemel, *The Betrayal: The Nuremberg Trials and German Divergence* (New York, 2016), 100-150; Lawrence Douglas, *The Memory of Judgment: Making Law and History in the Trials of the Holocaust* (New Haven, 2001), 11-94. Francine Hirsch, *Soviet Judgment at Nuremberg: A New History of the International Military Tribunal After World War II* (Oxford: Oxford University Press, 2020), 17-134. Watch Video of Day 8 of trial, *Nazi Concentration Camps* (All on Canvas)

Part 3:

Israel, Justice, and Memory

Week 7: Jews, Honor, and the Law

Reading for Week 7: Laura Jokusch and Gabriel N. Finder, “Revenge, Retribution, and Reconciliation in the Postwar Jewish World,” and David Engel, “Why Punish Jewish Collaborators?” in *Jewish Honor Courts: Revenge, Retribution, and Reconciliation after the Holocaust*, ed. Laura Jokusch and Gabriel N. Finder (Detroit, 2015), 1-49; Dan Porat, *Bitter Reckoning: Israel Tries Holocaust Survivors as Nazi Collaborators* (Cambridge, MA, 2019), 67-80; Dan Porat, “Changing Legal Perceptions of ‘Nazi Collaborators’ in Israel, 1950-1972,” in *Jewish Honor Courts: Revenge, Retribution, and Reconciliation after the Holocaust*, ed. Laura Jokusch and Gabriel N. Finder (Detroit, 2015), 279-303 (All on Canvas).

Week 8: “The Kasztner Trial”

Reading for Week 8: Tom Segev, *The Seventh Million: The Israelis and the Holocaust* (New York: Picador, 2000), 255-320; Yechiam Weitz, *The Man Who Was Murdered Twice: The Life, Trial, and Death of Israel Kasztner* (Jerusalem: Yad Vashem, 2011), 15-31, 115-326. (All on Canvas).

Week 9: The Eichmann Trial (I): The Trial

Reading for Week 9: Deborah Lipstadt, *The Eichmann Trial* (New York, 2011), 1-105; David Cesarani, *Becoming Eichmann: Rethinking the Life, Crimes, and Trial of a Desk Murderer* (New York, 2005), 337-323; Lawrence Douglas, *The Memory of Judgment: Making Law and History in the Trials of the Holocaust* (New Haven, 2001), 97-184; in *The Eichmann Trial Reconsidered*. (All on Canvas except Lipstadt book.)

Week 10: The Eichmann Trial (II): The Banality of Evil

Reading for Week 10: Hannah Arendt, *Eichmann in Jerusalem: A Report on the Banality of Evil* (New York, 2006), 3-35, 253-279; Deborah Lipstadt, *The Eichmann Trial* (New York, 2011), 105-203; Russel A. Berman, “Arendt’s Conservatism and the Eichmann Judgement,” 116-147, Selya Benhabib, “Whose Trial? Adolf Eichmann’s or Hannah Arendt’s? The Eichmann Controversy Revisited, 209-228, both in *The Trial That Never Ends: Hannah Arendt’s Eichmann in Jerusalem in Retrospect*, ed. Richard J. Golsan and Sarah M. Misemer (Toronto, 2017). (All on Canvas except Lipstadt book.)

Part 4:

Germany, Justice and Memory

Week 11: The Germans and Crimes Against Humanity

Reading for Week 11: Katherina von Kellenbach, "Vanishing Acts: Perpetrators in Postwar Germany," *Holocaust and Genocide Studies* v. 17, n. 2 (2003), 305-29; Mary Fulbrook, *Reckonings: Legacies of Nazi Persecution and the Quest for Justice* (New York, 2018), 231-265; Henry Friedlander, "The Deportation of the German Jews: Postwar German Trials of Nazi Criminals," *Leo Baeck Institute Yearbook 1984*, 201-25 (All on Canvas).

Week 12: The Frankfurt Auschwitz Trial

Reading for Week 12: Rebecca Wittmann, *Beyond Justice: The Auschwitz Trial* (Cambridge, MA, 2012), all.

Part 5:

France, Justice and Memory

Week 13: France Vichy: The Trial of Marshall Pétain

Reading for Week 13: : Henri Rousso, *The Vichy Syndrome: History and Memory in France Since 1944* (Cambridge, MA, 1991), 1-59; Julian Jackson, *France on Trial: The Case of Marshal Pétain* (Cambridge, MA, 2023), 40-282. (All on Canvas).

Week 14: The Klaus Barbie Trial

Reading for Week 14: Henri Rousso, *The Vichy Syndrome: History and Memory in France Since 1944* (Cambridge, MA, 1991), 132-167; Alain Finkielkraut, *Remembering in Vain: The Klaus Barbie Trial and Crimes Against Humanity* (New York, 1992). (Rousso on Canvas).

Part 6:

Postscript:

Week 15: The Demjanjuk Case

Reading by 4/15: Lawrence Douglas, *The Right Wrong Man: John Demjanjuk and the Last Great Nazi War Crimes Trial* (New York: 2016), all.

Course|New for request 20683

Info

Request: MAE 6XXX Mathematics Teaching and Learning in Higher Education
Description of request: The School of Teaching & Learning requests a new course
Submitter: Kristen Apraiz kapraiz@coe.ufl.edu
Created: 11/22/2024 8:55:35 AM
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:
MAE

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

- 1 = 1000 level Introductory undergraduate
- 2 = 2000 level Introductory undergraduate
- 3 = 3000 level Intermediate undergraduate
- 4 = 4000 level Advanced undergraduate
- 5 = 5000 level Introductory graduate/professional
- 6 = 6000 level Intermediate graduate/professional
- 7 = 7000 level Advanced graduate/professional
- 8 = 8000 level Advanced professional
- 4/5 = 4000/5000 Joint undergraduate/graduate
- 4/6 = 4000/6000 Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee) and require separate requests to each body*

Course Number

Enter the three-digit number indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this should 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

Course Title

Enter the title of the course as it should appear in the Academic Catalog. There is a 100-character limit (including spaces and punctuation) for course titles.

Response:
Mathematics Teaching and Learning 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:
Math Tch & Learning Higher Ed

Delivery Method

Indicate the primary intended delivery method for this course.

Response:
PC - Primarily Classroom (0-49% of course content taught outside of classroom)

If the course is to be offered through UF Online, please include a memo of support from the UF Online program.

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 routinely has varying course titles, topics, and student learning outcomes within or between semesters. Small changes to weekly topics and or texts that do not change the course description or student learning outcomes do not need to have rotating topics designation.

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. Note that credit hours are regulated by Rule 6A-10.033, FAC. If the course will be offered with variable credit, select "Variable" and then indicate the minimum and maximum credits per section. 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. If S/U only, please remember that the syllabus must include a grading rubric that clearly indicates how students will earn S or U grades.

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. If weekly contact hours are not 1:1 for credits (e.g. 4 contact hours per week for a 2 credit course), please explain why.

Response:
3 weekly contact hours because the course meets for 3 hours one day a week.

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:
Strategies for teaching mathematics in higher education. Explore learning theories, evidence-based teaching methods, and assessment strategies through readings, activity design, case discussions, and classroom observations.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course, or enter N/A if there are none. "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

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 written so that it can be enforced in the registration system.

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 use 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).
- 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:

- 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 for Placement in the Curriculum

Please indicate the degree level (Bachelors, Graduate, Professional) and program(s) (majors, minors, certificates) for which the course will be used. Please indicate if the course is intended for degree requirements or electives. Note: separate program-specific request are required to add a course into program curricula.

Response:

This is an elective graduate-level course for both mathematics education and mathematics graduate students who are teaching or intend to teach mathematics at a higher-education institution. This course has been piloted for two years and feedback from students has been used to refine the course. There is a letter from the graduate advisor in the mathematics department stating this course is valued and will be an important part of their curriculum moving forward for graduate students.

Syllabus Content Requirements

Syllabus Content Requirements Please upload the syllabus for the proposed course. (Note that rotating topics courses should still submit a sample syllabus to illustrate the kind of content that will be included.) Before uploading, ensure that the syllabus contains:

- Student learning outcomes explaining what students will be able to do after successfully completing the course. These should use *observable*, *measurable* action verbs.
- Required and recommended readings for the course.
- Name of instructor(s) or planned instructor(s). If unknown, list as TBD.
- Materials and Supplies fees, if any.
- Methods by which students will be graded
- The grading scheme used in the course (e.g., what constitutes an A, an A-, etc.), along with information on current UF grading policies for assigning grade points. This may be achieved by including a link to the <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/> university grades and grading policies.
- A 15 week calendar or schedule of topics with enough detail to illustrate weekly topics, readings, and assignments (asynchronous or modular courses can arrange by modules rather than weeks).
- A statement related to class attendance, make-up exams and other work such as: "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click [here](https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/) to read the university attendance policies."
- A statement related to accommodations for students with disabilities such as: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started with the Disability Resource Center](https://disability.ufl.edu/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.
- A statement informing students of the online course evaluation process such as: "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.ua.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.ua.ufl.edu/public-results/>."

Response:

All Items Included

MAE 6XXX: Mathematics Teaching and Learning in Higher Education
Spring 20XX
Thursday 4:05pm - 7:05pm (Periods 9 - 11)
Norman Hall Room XXXX

Instructor:

Dr. Kristen Apraiz

Office: Norman Hall 2609

Phone: 352-273-4230

kapraiz@coe.ufl.edu

Office Hours: R 10 - 11:30am & 2 - 3:30pm

Course Description:

Strategies for teaching mathematics in higher education. Explore learning theories, evidence-based teaching methods, and assessment strategies through readings, activity design, case discussions, and classroom observations.

Course Objectives:

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

- Discuss multiple learning theories and evidence-based strategies that are relevant for mathematics teaching and learning in higher education.
- Plan post-secondary mathematics activities and coursework that reflect a knowledge of learning theories and evidence-based instructional strategies.
- Construct assessment strategies that allow learners to demonstrate their learning in multiple ways.
- Review and analyze existing research in undergraduate mathematics education.
- Conduct a review of literature on a topic connected to undergraduate mathematics topic of their choice.

Nature of Course Delivery

The course delivery includes a blend of instructional techniques, including lectures, group discussions, self-directed study and research, student-led presentations, online interaction, and written assignments. The Canvas and Google platforms for this course serves as the primary repository for the majority of assignments, the supplementary materials and course-related information.

Selected Course Readings

Ball, D. L., Hoyles, C., Jahnke, H. N., & Movshovitz-Hadar, N. (2003). The teaching of proof. *arXiv preprint math/0305021*.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How people learn* [HPL] (Vol. 11). Washington, DC: National academy press.

- Bressoud, D. (2002). Teaching Mathematics in Colleges and Universities: Case Studies for Today's Classroom: Graduate Student Edition. *The American Mathematical Monthly*, 109(9), 866.
- Dawkins, P. C., & Zazkis, D. (2021). Using moment-by-moment reading protocols to understand students' processes of reading mathematical proof. *Journal for Research in Mathematics Education*, 52(5), 510-538.
- Hodara, M. (2019, March). Understanding the developmental mathematics student population: Findings from a nationally representative sample of first-time college entrants. In *Workshop on Increasing Student Success in Developmental Mathematics*, Washington, DC.
- Sadler, P., & Sonnert, G. (2018). The path to college calculus: The impact of high school mathematics coursework. *Journal for Research in Mathematics Education*, 49(3), 292-329.
- Saxe, K., Braddy, L., Bailer, J., Farinelli, R., Holm, T., & Mesa, V. (2015). A common vision for undergraduate mathematical sciences programs in 2025.
- The Mathematical Association of America: The Instructional Practices Guide (2017).
<https://maa.org/programs-and-communities/curriculum%20resources/instructional-practices-guide>
- Zorn, P. (Ed.). (2015). *2015 CUPM curriculum guide to majors in the mathematical sciences*. Mathematical Association of America.
<https://maa.org/sites/default/files/CUPM%20Guide.pdf>

Course Requirements and Assessment

This course places a strong emphasis on your active engagement both inside and outside the classroom. Your active participation is essential for a meaningful learning experience. Regular attendance is expected and your conduct should reflect professionalism at all times. If you happen to be running late, it is your responsibility to inform the instructor. In cases of unavoidable absence, please notify the instructor before or after the class. Our class discussions will be enhanced when everyone diligently completes the assigned readings and is ready to actively participate.

You will have a peer-reviewer(s) for the review of literature assignment. The peer review system provides (a) fresh set of eyes and perspective on your thoughts and writing; (b) a cleaner and higher quality final paper; (c) new learnings by reading someone else's thoughts; and (d) the new opportunity to interact closely with another member of our community.

1. **Participation Assessment (15%):** Please compose a paragraph explaining the rationale behind your self-assessment of your participation at the indicated level. This paragraph should be submitted by the final day of the course. The provided criteria serves as a general guideline. If you believe you merit a particular grade but don't completely align with the outlined criteria, then kindly elaborate on your reasoning.

14-15 Outstanding: "Criteria"

(a) You have maintained perfect attendance, never arriving late or leaving early. (b) Your readiness for each session is evident through thorough reading and reflection on required materials, occasionally supplemented by relevant additional reading.

(c) Your contributions consistently elevate class discussions through insightful analysis, references to specific aspects of the reading, and incorporation of related literature.

(d) Your active listening and consistent involvement in course activities distinguish you, and you never engage in mere superfluous chatter or become a distraction to peers.

(e) You have completed all the assignments and brought relevant materials to the class by the due date.

13-14 Excellent: You have not missed class or arrived late/left early more than once. While closely approaching the above description in most aspects, there might be a minor shortfall in one or two criteria.

12-13 Good: You have not missed class or arrived late/left early more than twice. Although you nearly fulfill the above description in various aspects, there might be a slight gap preventing complete alignment.

2. **Discussions (20%):** This course will include small group discussion in multiple formats to facilitate and support the full participation of everyone. Participants will respond to posted topics, pose questions, and reflect on course content in discussion boards. It is expected that you will engage not just with the content, but with your peers as well..

Discussion Rubric

Criteria	3 pts	2 pts	1 pt	0 pt	Points
Critical Analysis	Discussion postings display an excellent understanding of the required readings and underlying concepts including correct use of terminology. Postings integrate an outside resource, or relevant research, or specific real-life application (work experience, prior coursework, etc.) to support important points. Well-edited quotes are cited appropriately. No more than 10% of the posting is a direct quotation.	Discussion postings display an understanding of the required readings and underlying concepts including correct use of terminology and proper citation.	Discussion postings repeat and summarize basic, correct information, but do not link readings to outside references, relevant research or specific real-life application and do not consider alternative perspectives or connections between ideas. Sources are not cited.	Discussion postings show little or no evidence that readings were completed or understood. Postings are largely personal opinions or feelings, or "I agree" or "Great idea", without supporting statements with concepts from the readings, outside resources, relevant research, or specific real-life application.	3

Professional Participation	Discussion postings actively stimulate and sustain further discussion by building on peers' responses including — building a focused argument around a specific issue or — asking a new related question or — making an oppositional statement supported by personal experience or related research.	Discussion postings contribute to the class' ongoing conversations as evidenced by — affirming statements or references to relevant research or, — asking related questions or, — making an oppositional statement supported by any personal experience or related research.	Discussion postings sometimes contribute to ongoing conversations as evidenced by — affirming statements or references to relevant research or, — asking related questions or, — making an oppositional statement supported by any personal experience or related research.	Discussion postings do not contribute to ongoing conversations or respond to peers' postings. There is no evidence of replies to questions.	3
Timeliness	Discussion posting is completed on time.	N/A	Discussion post is posted after the due date but within 48 hours.	Discussion post is incomplete or not present.	3
Quality of Writing	Written responses are free of grammatical, spelling or punctuation errors. The style of writing facilitates communication.	Written responses are largely free of grammatical, spelling or punctuation errors. The style of writing generally facilitates communication.	Written responses include some grammatical, spelling or punctuation errors that distract the reader.	Written responses contain numerous grammatical, spelling or punctuation errors. The style of writing does not facilitate effective communication.	3

3. Mathematics Organization Presentation (5%): As a member of the mathematics education community, it is important to know the professional organizations that represent undergraduate mathematics education. These professional organizations offer opportunities to attend conferences, share research and professional knowledge, and opportunities for professional development. You and partner will select from a list an undergraduate mathematics education organization to present to the class. The presentation will last between 10 - 15 minutes.

Rubric

Criteria				Points
Completed the organization information table by addressing each part of the table (#1 - 10).	20 pts Each part of the table is addressed with a clear and appropriate	10 pts An attempt was made to address each part but little to no information was	0 pts Incomplete/ Missing	20 pts

	response. The information is presented in an informative manner and can serve as a resource for fellow students.	provided. Or, certain parts were answered and others were left blank. Overall, the work/effort is minimal.		
In class presentation: Provide a 5 minute presentation about the organization you researched. Highlight the important aspects of the website.	5 pts A 5 minute presentation was given to the class which was informative and showed the organizations website	2 pts A presentation was given to the class but key details about the professional organization were missing.	0 pts Did not present	5 pts

4. Case Study in Teaching Undergraduate Mathematics Presentation (10%): Case Studies provide you with an opportunity to analyze a teaching situation which may arise in an undergraduate mathematics course and discuss how to react. You and a partner will select one case study to present to the group and facilitate a discussion. You and your partner will think about the situation, asking what the different issues are, what you would do next or would have done differently and what can be learned from the situation. The presentation will last between 20 - 30 minutes. Class members are required to prepare for the presentation by reading the assigned case prior to the class meeting.

Rubric:

Criteria			Points
Discussion: The discussion is between 20 - 30 minutes in length.	2 pts Completed discussion between the desired length	0 pts Did not facilitate a discussion	2 pts
Evidence of Different Viewpoints: Evidence indicates that you and your partner considered the case from the perspective of the teaching assistants, the student(s) concerns and course implications.	5 pts Clear evidence is present in your submission that you considered the different viewpoints.	3 pts Some viewpoints from the teaching assistant and/or student(s) are present but not fully-developed. The course implications may be present but lacking in description.	5 pts
Presentation Engagement: The presentation included an opportunity for	5 pts The presenters included a protocol to actively engage	3 pts	5 pts

participants to engage with one another around the case study topic. A protocol was used to facilitate this engagement.	participants in discussing the case study.	The presentation did not include or there was little opportunity for active engagement.	
Submission: Slides or a document were submitted for the Case Study presentation.	3 pts Complete	0 pts Missing	3 pts

5. Lesson Design, Teach and Reflect Assignment (20%): You will prepare a 20 minute lesson on a topic of their choice and teach the lesson in class. The lessons will be recorded for you to reflect upon. The lesson will include a research-based strategy from the Instructional Practices Guide. After the lesson, you will reflect upon your teaching by watching the video and answering reflective questions. At the conclusion of this assignment you will create/revise your Teaching Statement for your professional portfolio.

Lesson plans and rationales will be assessed according to the following:

Preparation (10 points): You will submit your lesson plan and are prepared to teach a well-developed 25 minute lesson and are prepared with all necessary resources.

Accuracy (10 points): Mathematical content and language is accurate and appropriate for the target audience.

Rationale (10 points): A rationale is provided for the instructional choices made while planning the lesson, including reference to **at least one** learning theory. This includes choice of teaching strategies and selection of tasks.

Connections to class readings and activities (10 points): Lesson plan and rationale clearly demonstrate an ability to draw on and appropriately integrate at least one learning theory and instructional practice discussed in course readings and activities. Connections are explained in detail and appropriate APA citations are included for any cited readings or documents.

Teaching Statement (10 points): Provide an overview of your teaching beliefs with reference to learning theories/beliefs about how students learn, effective teaching strategies (general or specific), conceptions of mathematics as a discipline, or other critical factors elements of your beliefs. These should be mentioned in the opening paragraph with subsequent paragraphs providing further explanations and supporting examples. Your teaching statement is a narrative that helps the reader clearly envision your approach to planning, teaching, and assessment. Include specific, illustrating examples. Please include goals for continued development as a teacher and any ways that these may intersect with your research agenda.

- 6. Teaching Observations (5%):** This assignment will provide you with the opportunity to observe two college classes. Your observations can take place at a university or state college. During the observation you will complete an observation table looking for elements of active instructional strategies. You will write a 1 - page reflection for each observation. The assignment is evaluated upon your completion of the two observations and reflections.

Rubric:

Criteria		Points
Observations Two teaching observations in undergraduate mathematics courses offered at an university and/or state college are complete	2 pts A description for the classes observed are provided in the reflection along with contact information for the professor. Two observations are complete.	0 pts Incomplete. There is no evidence for two teaching observations.
Reflection The reflection provides details about the courses observed such as student interactions, how the instructor began the class, how the instructor ended the class, types of questions asked in class (both students and professor), layout of classroom, and identified teaching strategies from the course readings.	8 pts Reflections include connections to the course readings and include specific examples from the observation. A thorough description of the teaching observed is provided and reflected upon.	4 pts A reflection is provided for both observations but is minimal with little to no connections to course readings and/or lacks specific examples.

- 7. Review of Literature Project (25%):** For this assignment, you will pick an area of undergraduate mathematics education of interest and review the literature in that area. The assignment is broken down into smaller components described below.

Review of Literature Assignment	Due	Points
Review of literature topic & rationale	3/28	5
Initial themes of the literature (written assignment)	4/4	5
Review of Literature peer feedback	4/16	5
Presentation	4/18	6
Final review of literature	4/24	19

Rubric for Final Submission:

	Exceptional	Acceptable	Needs Improvement
Content	2 pts	1 pt	0 pt

	The inquiry question was well established in the broader context of an educational topic.	The inquiry question was established in the context of an educational topic.	The inquiry question was not established in the context of an education topic.
	6 pts At least six articles were selected and each specifically related to the initial inquiry question.	5 - 4 pts At least six articles were selected and related to the initial inquiry question.	3 - 0 pts At least six articles were selected; some minimally related to the inquiry question.
	4 pts The findings/results of articles were thoughtfully compared, contrasted and/or connected to each other.	3 pt The findings of articles were compared, contrasted and/or connected to each other.	2 - 0 pts The findings of articles were mentioned with little and or no comparison or connection to each other.
	2 pts The conclusion of the review summarized the knowledge found from this review and related the knowledge gained to the inquiry question.	1 pt The conclusion of the review summarized the knowledge found from this review.	0 pt The conclusion of the review did not summarize the knowledge found from this review.
	1 pt The references were cited using APA style.	0.5 pt The references were listed.	0 pt The references were not listed.
Organization	2 pts The review was organized using subheadings. The review was suitably organized considering the contents of the selected articles.	1 pt The review was suitably organized considering the contents of the selected articles.	0 pt The review was minimally organized and writing was difficult to follow throughout.
Mechanics	2 pts There were no grammatical, spelling and/or punctuation errors and transitional phrases were used to guide the reader throughout the text.	1 pt There was an occasional grammatical, spelling and/or punctuation error that did not distract the reader.	0 pt There were many grammatical, spelling and/or punctuation errors that distracted the reader from the content of the writing.
Presentation & Slide	6 pts One slide was created for the presentation following the guidelines and is aesthetically appealing. The presentation was between 3 - 5 minutes.	3 pts One slide was created for the presentation following the guidelines. The presentation was between 3 - 5 minutes.	0 pt The slide does not follow the guidelines and/or the presentation was incomplete.

Technology Requirements:

- a) This course is designed with the assumption that students have the following basic technology skills and knowledge: a) connecting to the Internet, b) attaching files via email and sending email messages, c) using word processing software packages, d) copying and pasting, e) downloading and installing software and d) using and navigating LMS Canvas.
- b) A web browser (the latest version of Firefox or Chrome, etc.)

Course and University Policies

Late Assignment Policy: Late assignments can earn up to half the credit and should be submitted within two-weeks from the original due date or a due date otherwise arranged by the instructor.

Methods of Student Evaluation

Grades in this course will be percentage based using the scale below:

Grading Scale	
A	100 - 93
A -	90 - 92
B+	87 - 89
B	83 - 86
B -	80 - 82
C+	77 - 79
C	73 - 76
C -	70 - 72

More information on UF grading policy may be found at: [UF Graduate Catalog Grades](#) and [Grading Policies](#)

UF's 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 specifies a number of behaviors that are in violation of this code and the possible sanctions. Click [here](#) to read the Conduct Code. If you have any questions or concerns, please consult with the instructor of this class.

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/> .

Attendance:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click [here](#) to read the university attendance policies.

Accommodations:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click [here](#) to get started 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.

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: Broward 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.

Course Schedule

*Please note that the weeks run from Thursday to Wednesday of the following week.

Week	Dates	Topic	Assignment(s) Due the following week
1	1/11 - 1/17	Introductions and course overview Examining Learning Theories	Read HPL Chapter 1: Learning: From Speculation to Science pp. 3 - 27. Discussion 1
2	1/18 - 1/24	Learning Theories Case Study 1 - Changing Sections	Read HPL Chapter 3: Learning and Transfer pp. 51 - 78. Reading choice for learning theories. Discussion 2
3	1/25 - 1/31	Learning Theories Case Study 3 - Fundamental Problems	Reading: CPUM Guide Articulation Issues: HS to College pp. 67 - 75 and Hodara 2019 Discussion 3
4	2/1 - 2/7	*Hawkins Center Presentation Case Study 11 - Study Habits	Reading: A Common Vision for Undergraduate Mathematical Sciences Programs in 2025 Discussion 4
5	2/8 - 2/14	Professional Organization Assignment First Two Years of College Mathematics	Reading: IP Guide - Fostering Student Engagement pp. 1 - 26. Discussion 5
6	2/15 - 2/21	Instructional practices - Fostering Student Engagement Case Study 7 - Pairing Up	Reading: IP Guide - Selecting Mathematical Tasks Part 1 pp. 26 - 35 Discussion 6
7	2/22 - 2/28	Instructional practices - Mathematical	Reading: IP Guide - Selecting

		Tasks Case Study 5 - Making Waves	Mathematical Tasks Part 2 pp. 35 - 44 Discussion 7
8	2/29 - 3/6	*Guest Speaker - Kevin Dykema President of NCTM, The Joy of Teaching Mathematics Mathematical Tasks	Reading IP Guide Design Practices pp. 89 - 111. Discussion 8
9	3/7 - 3/20*	Instructional practices - Facilitating Learning & Design Practices Case Study 10 - Seeking Points Introduction to Review of Literature *Presentation from Librarian - bring a device to access resources	Read: Ball et al (2003) and Discussion 9 Review of Literature Topic & Rationale
10	3/11 - 3/15*	Spring Break	
11	3/21 - 3/27	Teaching and learning of proof *Guest Speaker: Darryl Chamberlain Jr., ERAU	Reading IP Guide Role of Technology pp. 115 - 122 Discussion 10
12	3/28 - 4/3	Learning technology Lesson Presentations	Initial Themes of the Literature Lesson Reflection Submit Teaching Statement/Philosophy
13	4/4 - 4/10	Assessment for learning Case Study 9 - Salad Days *Guest Speakers from state college organization.	Reading IP Guide Assessment & FA Practices pp. 49 - 82 Discussion 11
14	4/11 - 4/17	Research project check-in Formative Assessment Practices Case Study 6 - Order Out of Chaos	Review of Literature Peer Feedback
15	4/18	Class presentations	Final Review of Literature due 4/24

Course|New for request 20700

Info

Request: PHC 6XXX Public Health Methods 1: Quantitative Foundations

Description of request: Request to create new course PHC6XXX Public Health Methods 1: Quantitative Foundations

Submitter: April Oneal apriloneal3@ufl.edu

Created: 11/7/2024 4:15:33 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:
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

- 1 = 1000 level Introductory undergraduate
- 2 = 2000 level Introductory undergraduate
- 3 = 3000 level Intermediate undergraduate
- 4 = 4000 level Advanced undergraduate
- 5 = 5000 level Introductory graduate/professional
- 6 = 6000 level Intermediate graduate/professional
- 7 = 7000 level Advanced graduate/professional
- 8 = 8000 level Advanced professional
- 4/5 = 4000/5000 Joint undergraduate/graduate
- 4/6 = 4000/6000 Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee) and require separate requests to each body*

Course Number

Enter the three-digit number indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this should 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

Course Title

Enter the title of the course as it should appear in the Academic Catalog. There is a 100-character limit (including spaces and punctuation) for course titles.

Response:
Public Health Methods 1: Quantitative Foundations

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:
Public Health Methods 1

Delivery Method

Indicate the primary intended delivery method for this course.

Response:
PC - Primarily Classroom (0-49% of course content taught outside of classroom)

If the course is to be offered through UF Online, please include a memo of support from the UF Online program.

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:
2025

Rotating Topic

Select "Yes" if the course routinely has varying course titles, topics, and student learning outcomes within or between semesters. Small changes to weekly topics and or texts that do not change the course description or student learning outcomes do not need to have rotating topics designation.

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. Note that credit hours are regulated by Rule 6A-10.033, FAC. If the course will be offered with variable credit, select "Variable" and then indicate the minimum and maximum credits per section. 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. If S/U only, please remember that the syllabus must include a grading rubric that clearly indicates how students will earn S or U grades.

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 <i>on average </i>throughout the duration of the course. If weekly contact hours are not 1:1 for credits (e.g. 4 contact hours per week for a 2 credit course), please explain why.

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 is the first of two courses that focuses on public health/global health research and practice using quantitative and qualitative methods. This course, taken in conjunction with a lab, focuses on principles of epidemiology and biostatistics, emphasizing application of epidemiological methods, quantitative data collection, and quantitative data analysis and interpretation.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course, or enter N/A if there are none. "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

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 written so that it can be enforced in the registration system.

Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
None

Completing Prerequisites:

- Use "&" and "or" to conjoin multiple requirements; do not use 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).
- 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:

- 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:

PHC 6XXX Public Health Methods 1 Lab: Applying Statistical Methods

Rationale for Placement in the Curriculum

Please indicate the degree level (Bachelors, Graduate, Professional) and program(s) (majors, minors, certificates) for which the course will be used. Please indicate if the course is intended for degree requirements or electives. Note: separate program-specific request are required to add a course into program curricula.

Response:

This is the first of two courses that focuses on public health/global health research and practice using both quantitative and qualitative methods. Taken in conjunction with a PH Statistical Programming Lab, this course focuses on principles of epidemiology and biostatistics, emphasizing application of epidemiological methods, quantitative data collection, and quantitative data analysis and interpretation.

Syllabus Content Requirements

Please upload the syllabus for the proposed course. (Note that rotating topics courses should still submit a sample syllabus to illustrate the kind of content that will be included.) Before uploading, ensure that the syllabus contains:

- Student learning outcomes explaining what students will be able to do after successfully completing the course. These should use *observable*, *measurable* action verbs.
- Required and recommended readings for the course.
- Name of instructor(s) or planned instructor(s). If unknown, list as TBD.
- Materials and Supplies fees, if any.
- Methods by which students will be graded
- The grading scheme used in the course (e.g., what constitutes an A, an A-, etc.), along with information on current UF grading policies for assigning grade points. This may be achieved by including a link to the [university grades and grading policies](https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/).
- A 15 week calendar or schedule of topics with enough detail to illustrate weekly topics, readings, and assignments (asynchronous or modular courses can arrange by modules rather than weeks).
- A statement related to class attendance, make-up exams and other work such as: "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click [here](https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/) to read the university attendance policies."
- A statement related to accommodations for students with disabilities such as: "Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here](https://disability.ufl.edu/get-started/) to get started 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.
- A statement informing students of the online course evaluation process such as: "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.ua.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.ua.ufl.edu/public-](https://gatorevals.ua.ufl.edu/public-results/)

results.”

Response:
All Items Included

University of Florida
College of Public Health and Health Professions
PHC 6XXX: Public Health Methods 1: Quantitative Foundations (3 credits)
Semester: Fall 2025
Delivery Format: Blended Learning

Instructor Name: Jonathan Fischer

Class Location: TBD

Office Location: CTRB 5223

Phone Number: 352-294-5453

Email Address: jfischer1@ufl.edu

Office Hours: Tuesdays & Thursdays, 1pm-2pm ET; others by appointment

Teaching Assistants: TBD

Preferred Course Communications: Canvas messaging

Prerequisites: None

Corequisites: PHC XXXX Public Health Methods 1 Lab: Applying Statistical Methods

I. PURPOSE & OUTCOME

Course Overview

This is the first of two courses that focuses on public health/global health research and practice methods. This course, taken in conjunction with a lab, focuses on principles of epidemiology and biostatistics, emphasizing application of epidemiological methods, quantitative data collection, and quantitative data analysis and interpretation.

Relation to Program Outcomes

This course is associated with the following MPH core competencies as outlined by the Council on Education for Public Health ([CEPH, 2024](#), Section D2):

- Core 1: Apply epidemiological methods to the breadth of settings and situations in public health practice.
- Core 2: Select quantitative and qualitative data collection methods appropriate for a given public health context.
- Core 3: Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.
- Core 4: Interpret results of data analysis for public health research, policy, or practice.

Course Objectives/Outcomes

1. Identify basic ethical and legal principles pertaining to the collection, maintenance, use, and dissemination of data.
2. List, define, and calculate basic epidemiology measures of disease frequency and comparisons of disease risk between populations.
3. Select a study design, data collection methods, and data analysis to appropriately address a specific research question and/or hypothesis.

4. Differentiate among different sampling methods and discuss their strengths and limitations within the context of study design.
5. Evaluate the quality of data for purposes of data analysis, interpretation, and reporting.
6. Use biostatistics, computer-based programming, and/or software for data input, management, summarization, visualization, and analysis.
7. Assess the validity of data analysis methods.
8. Interpret results of quantitative data analysis for public health research, policy, or practice.
9. Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening.

Instructional methods

1. Readings: Required readings are assigned for each module. Students are responsible for this material and will complete weekly quizzes based on that week's readings. These are indicated in the schedule below.

2. Lectures: Lecture presentations

3. SPSS Resources: Software tutorials regarding the use of SPSS will be provided through Canvas in the BOLT (see required texts).

4. Labs: Part of class time each week will be devoted to guided activities requiring students to work through exercises based on the current module. These can be completed in groups or individually (see assignments section below).

5. Assessments: Students will be evaluated using several different assignment types, including weekly homeworks and two exams in addition to the aforementioned quizzes and labs (see assignments section below).

Blended Learning

What is blended learning and why is it important?

A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

What is expected of you?

You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

II. DESCRIPTION OF COURSE CONTENT, FORMAT, & ACCESS

Topical Outline/Course Schedule

Wk	Topic(s)	Homework Assignments	Readings
1	Introduction to Biostatistics & Epidemiology <ul style="list-style-type: none"> • Sources of data • Elements of descriptive epi 	M1: Fundamentals of epi and biostats	BOLT Introduction, EEPH Chapters 1, 4 Suggested: Merrill Ch 1, Introduction
2	Variables and data, random samples	M2: Variable types; populations vs. samples	BOLT Sections 1.1-1.3, 2.1 Suggested: Merrill Ch 2, Data & Descriptive Measures
3	Probability, independence and disjointness	M3: Applying probability rules, independence & disjointness	BOLT Section 3.1 Suggested: Merrill Ch 6, Probability
4	Random variables and distributions	M4: Identifying & applying distributions	BOLT Sections 3.2 – 3.3 Suggested: Merrill Ch 7, Random Variables & Probability Distributions
5	Point and interval estimation	M5: Computing & interpreting basic statistics	BOLT Sections 4.1.1 – 4.1.4
6	Hypothesis testing	M6: Writing hypotheses & interpreting results	BOLT Sections 4.1.5-4.1.7 Suggested: Merrill Ch 8, Estimation & Hypothesis Testing
7	Calculating measures <ul style="list-style-type: none"> • Populations in Epidemiology • Ratio, Proportion, Rate • Prevalence 	M7: Risk, prevalence, & z-tests	EEPH Chapter 2
8	Calculating measures <ul style="list-style-type: none"> • Rates: Mortality rate, survival rate, attack rate, case fatality rate • Incidence 	M8: Rates, incidence, & t-tests	EEPH Chapter 3
9	Comparing measures <ul style="list-style-type: none"> • Comparison of disease frequency • Measures of association • Attributable risk • Attributable proportion • Relative risk • Standardization 	M9: Compare frequencies & chi-square tests	EEPH Chapter 3 Suggested: Merrill Ch 3, Standardizing Rates Suggested: Merrill Ch 11, Statistical Measures of Association Among Variables
10	Midterm exam (weeks 1-9)		

Wk	Topic(s)	Homework Assignments	Readings
11	Screening <ul style="list-style-type: none"> • Screening methods • Primary, secondary, & tertiary prevention • Characteristics that make a disease appropriate for screening • Sensitivity, specificity, and positive and negative predictor values of a screening test Potential for bias in screening programs	M11: Screening & disease probabilities	EEPH Chapter 16
12	Experimental studies <ul style="list-style-type: none"> • Epidemiologic studies • Experimental study designs • Key features of conducting randomized controlled trials 	M12: Scenario – designing an experimental study	EEPH Chapter 6 Suggested: Merrill Ch 12, Experimental Studies
13	Cohort studies <ul style="list-style-type: none"> • Cohort study designs • Strengths & limitations of cohort study designs 	M13: Scenario – designing a cohort study	EEPH Chapter 8 Suggested: Merrill Ch 10, Study Designs (p. 207-209)
14	Case-Control studies <ul style="list-style-type: none"> • Case-control study designs • Measures of association: Odds ratios • Ecologic study design • Comparison of study design 	M14: Scenario – designing a case-control study	EEPH Chapter 9 Suggested: Merrill Ch 10, Study Designs (p. 201-207)
15	Bias, confounding, and causation <ul style="list-style-type: none"> • Bias • Confounding • Causation 	M15: Critique an epidemiological study	EEPH Chapters 10, 11, and 13 Suggested: Merrill Ch 10, Study Designs (p. 209-214) Suggested: Merrill Ch 14, Cause and Effect
Finals	Cumulative final (emphasis on 2nd half)		

Course Materials & Technology

This course will use the statistical software program SPSS. You can either purchase SPSS or use it for free via UFApps. These options are described below.

- Direct student leasing is available for use on personally-owned computers. It can be purchased ON CAMPUS at the UF Computing Help Desk located at 132 HUB Stadium Road ([Information Technology - University of Florida](#)). The most current version is

SPSS v29. SPSS is available for both Windows and Mac OS. Please let the Help Desk know if you require additional media for a non-Windows install. Currently, it is not possible to obtain this software remotely (off main campus).

- All UF students located away from the main campus should refer to the IBM® SPSS® educational sales program with ONTHEHUB – <http://www.onthehub.com/spss/>. The version available through UF is less expensive than the versions you can buy elsewhere; however, if you buy this software from another source be sure to obtain either the STANDARD GRADUATE PACK (GRADPACK) or PREMIUM GRADUATE PACK. The BASE or other versions may not have enough functionality for this course.
- SPSS is also available on UFApps for students, (<https://info.apps.ufl.edu>). Besides SPSS, this free Apps server also provides various other applications such as Microsoft Office. This works at any time and on any operating system as long as you have internet access and log in with your GatorLink Credentials. Many students have been successful at using this system for their assignments in this course. I highly recommend storing your files on the M: drive (can also be found in UFApps) because it provides the best performance when working with files in UFApps.

Laptops will be required for some course meetings. These days will be announced in advance on the course Canvas page.

This course will use the Canvas CMS. If you experience technical difficulties, please contact the UF Help Desk (learning-support@ufl.edu; 352-392-HELP – select option 2).

Required Materials

(BOLT) – The Biostatistics Open Learning Textbook is a Canvas shell containing readings and tutorials developed by the UF Department of Biostatistics.

Required Textbook:

(EEPH) - Essentials of Epidemiology in Public Health, 4th Edition by Ann Aschengrau, ScD, and George Seage III, DSc. Copyright 2020, ISBN:978-1284128352.

Optional textbook and reference materials:

- Merrill, R. M. (2012): Fundamentals of Epidemiology & Biostatistics. Jones & Bartlett Learning.
- Daniel, W.D. (2013): Biostatistics: A Foundation for Analysis in the Health Sciences. 10th Edition, Wiley.
- Agresti, A. (2013): The Art and Science of Learning from Data. 4th Edition, Pearson.

Additional Academic Resources (see Section V for additional student services)

- [Career Connections Center](#): Reitz Union 1300, 352-392-1601. Career assistance and counseling services.
- [Library Support](#): Receive assistance in using the libraries or finding resources.
- [Teaching Center](#): General study skills and tutoring
1317 Turlington Hall, 352-392-2010; or, to make a tutoring appointment: 352-392-6420.
- [Writing Studio](#): Help with brainstorming, formatting, and writing papers. 2215 Turlington Hall, 352-846-1138.
- Student Complaints On-Campus: [Visit the Student Honor Code & Student Conduct Code page for more info.](#)
On-Line Students Complaints: [View the Distance Learning Student Complaint Process.](#)

III. Academic Requirements & Grading

Assignment type	Percent	Notes
Quizzes (14 at 1-point each)	14	Weekly
Homework (14 at 1.5 pts each)	21	Weekly
Methods Labs (14 at 1.5 pts each)	21	Weekly
Midterm exam	21	Week 9
Final exam	23	Finals Week
Total	100	

Grading Scale

Percent Earned	[93, 100]	[90, 93)	[87,90)	[83, 87)	[80,83)	[77,80)	[73,77)	[70,73)	[67, 70)	[63,67)	[60, 63)	< 60
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	.67	0

Please be aware that grades of C- (or below) are not acceptable for graduate students. Graduate students' GPA must be at least 3.0 in all graduate courses (≥ 5000 level). A grade of C will count toward the graduate degree only if there are sufficient credits in graduate courses earned with a B+ or higher. Information on current UF grading policies can be found at:

<https://gradcatalog.ufl.edu/graduate/regulations/#Grades>

Description of Course Assessments

- **Module Quizzes** are taken via Canvas weekly for a total of 14 quizzes (including a syllabus quiz). These short quizzes are completed after performing each week's required reading and BEFORE attending class. These quizzes designed to make sure students are comfortable with each week's content before applying them in longer assignments. Quizzes are open-book, open-note and can be taken up to three times with the highest score counting.
- **Methods labs** will be completed weekly and provide an opportunity for students to engage in in-depth tutorials to practice, explore, and master each week's material. Labs are completed in-person during synchronous class sessions and are submitted via Canvas. Each lab will be tailored to meet the learning objectives for each week. Labs will be graded on the basis of completion and correctness and are due at midnight after the final class meeting of the week.
- **Homework assignments** will be assigned weekly and evaluated for both completion and correctness. These may consist of short answer questions, calculations of various measures of risk and association, data analysis in SPSS, and interpretation of results. In general, homework assignments will build on the work done in lab assignments. Details and rubrics for each assignment will be provided in Canvas, and students will submit assignments using Canvas. These are due at midnight the Tuesday after the module was covered in class.
- There are **two** closed-book **exams** taken in-person. One will be a midterm exam taking place after the first eight weeks and the other a cumulative final exam which focuses more on the material following the midterm. Both exams are proctored in-class and taken on Canvas. These exams will consist of a mix of calculations, interpretation of results, and short answer questions.

IV. CLASS POLICIES

Academic & Personal Integrity: I expect and assume that you will be honest with me in all aspects of your conduct regarding our course. In return, I will do the same with you. By formally registering for coursework at the University of Florida, you 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 honesty and integrity by abiding by the Honor Code.”
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.”*

[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. Violations of the Honor Code will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

Attendance Policy: Attendance is required. Students must notify the instructor via email about upcoming absences, late arrival, or if they will need to leave class early as soon as they become aware of potential conflicts. If you miss class without notification or you provide an unacceptable excuse, you will be counted as absent and will not be allowed to make-up assignments missed. Excused absences must be consistent with university policies in the [Graduate Catalog](#).

Course Evaluations: I value your professional and respectful feedback on the quality of instruction in this course. Please complete the evaluation for this course via the Canvas ‘GatorEvals’ tab or through <https://ufl.bluera.com/ufl/>. You will be notified when the evaluation period opens. UF provides [guidance on how to give feedback in a professional and respectful manner](#). You can also view [public summaries of course and instructor evaluation results](#).

Policy Related to Make up Exams or Other Work: Please notify me as soon as possible if unanticipated circumstances arise which interfere with your ability to complete an assignment on-time. Late work without prior notification and approval (unless there is an emergency) will receive a zero. Late work with prior approval (or due to an emergency) will be eligible for full credit. Any requests for make-ups due to technical issues must be accompanied by the ticket number received from e-learning support when the problem was reported to them. The ticket number will document the time and date of the problem. You must e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

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.

Title IX: University of Florida has zero tolerance for sexual discrimination, harassment, assault/battery, dating violence, domestic violence, or stalking. Students are encouraged to report any experienced or witnessed occurrences to law enforcement and/or one of UF’s Title IX Coordinators. Students can [report incidents](#) or learn more about their [rights and options](#) here. Or contact Student Conduct and Conflict Resolution at 202 Peabody Hall, 352-392-1261.

V. STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior:

- Complete all work as assigned.
- Take responsibility for the quality of your learning experience.
- Build on one another’s comments/ideas; seek to understand others’ perspectives.
- Respectfully provide and receive specific, solution-oriented feedback.
- Communicate with your instructor and with your group members.
- Only use electronic devices for course purposes during class meetings.
- Please also refer to academic and personal integrity section under Class Policies.

Netiquette, Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. I expect that students will show respect to their peers and instructor in all online communications. I will not tolerate improper language and disparaging comments; these actions will result in disciplinary action. Review [this resource](#) for information on the expected behavior of students when communicating with peers and instructors online.

VI. SUPPORT SERVICES

Accommodations for Students with Disabilities or Different Abilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, it requires that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability (or different-ability) that affects your learning, please reach out to the [Disabilities Resource Center \(DRC\)](#). And then share your accommodation letter with your instructor as quickly as possible to ensure you have access for

the full semester.

If you did not register formally, but you know you have different learning, behavioral, or other needs that may affect your performance in the course, tell me and I will help you.

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, please talk with an instructor and/or seek help through University resources available to you.

- [Counseling and Wellness Center](#): Individual counseling, group counseling, and online resources are available to UF students at no charge. Also psychological assessment, intervention, and assistance for math and test anxiety. Visit the website or call 352-392-1575. If you are having a crisis, you can call anytime and ask to speak to the counselor on call.
- [GatorWell Health Promotion services](#): GatorWell provides health-related resources, information, and individual services to students. Recommended services: Wellness Coaching for Academic Success (virtual appointments available).
- The [Student Health Care Center](#), 352-392-0627, 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.
- [UMatter, We Care](#): Available for students who are experiencing personal life disruptions that may affect their academics. UMatter can help you identify resources and communicate with instructors on your behalf. 352-294-CARE (2273), umatter@ufl.edu
- [University Police Department](#): Visit their website or call 352-392-1111 (or 9-1-1 for emergencies).
- [Alachua County Crisis Center](#): Visit the website or call the hotline - 352-264-6789
- [Meridian Behavioral Healthcare](#), 352-374-5600
- **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](#).

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."

Course|New for request 20702

Info

Request: PHC 6XXX Public Health Methods II: Applications for Practice

Description of request: Request to create new course PHC6XXX Public Health Methods II: Applications for Practice

Submitter: April Oneal apriloneal3@ufl.edu

Created: 11/8/2024 11:16:13 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:

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

- 1 = 1000 level Introductory undergraduate
- 2 = 2000 level Introductory undergraduate
- 3 = 3000 level Intermediate undergraduate
- 4 = 4000 level Advanced undergraduate
- 5 = 5000 level Introductory graduate/professional
- 6 = 6000 level Intermediate graduate/professional
- 7 = 7000 level Advanced graduate/professional
- 8 = 8000 level Advanced professional
- 4/5 = 4000/5000 Joint undergraduate/graduate
- 4/6 = 4000/6000 Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee) and require separate requests to each body*

Course Number

Enter the three-digit number indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this should 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

Course Title

Enter the title of the course as it should appear in the Academic Catalog. There is a 100-character limit (including spaces and punctuation) for course titles.

Response:
PHC6XXX Public Health Methods II: Applications for Practice

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:
PHMII: App for Practice

Delivery Method

Indicate the primary intended delivery method for this course.

Response:
PC - Primarily Classroom (0-49% of course content taught outside of classroom)

If the course is to be offered through UF Online, please include a memo of support from the UF Online program.

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:
2026

Rotating Topic

Select "Yes" if the course routinely has varying course titles, topics, and student learning outcomes within or between semesters. Small changes to weekly topics and or texts that do not change the course description or student learning outcomes do not need to have rotating topics designation.

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. Note that credit hours are regulated by Rule 6A-10.033, FAC. If the course will be offered with variable credit, select "Variable" and then indicate the minimum and maximum credits per section. 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. If S/U only, please remember that the syllabus must include a grading rubric that clearly indicates how students will earn S or U grades.

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 <i>on average </i>throughout the duration of the course. If weekly contact hours are not 1:1 for credits (e.g. 4 contact hours per week for a 2 credit course), please explain why.

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 second of two courses focusing on public health/global health research and practice using quantitative and qualitative methods. This course introduces qualitative and mixed methods and their relevance to rigorous public health research and practice, emphasizing using qualitative methods to conduct needs and capacity assessments within communities and organizations.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course, or enter N/A if there are none. "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

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 written so that it can be enforced in the registration system.

Undergraduate courses level 3000 and above must have a prerequisite.
Please verify that any prerequisite courses listed are active courses.

Response:
PHC 6XXX, Public Health Methods I: Quantitative Foundations

Completing Prerequisites:

- Use "&" and "or" to conjoin multiple requirements; do not use 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).
- 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:

- 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 for Placement in the Curriculum

Please indicate the degree level (Bachelors, Graduate, Professional) and program(s) (majors, minors, certificates) for which the course will be used. Please indicate if the course is intended for degree requirements or electives. Note: separate program-specific request are required to add a course into program curricula.

Response:

This will be a required course for MPH students, who will typically take the course in their second semester. This course must be taken after successful completion of Public Health Methods I, which lays the foundation for data collection concepts.

Syllabus Content Requirements

Syllabus Content Requirements Please upload the syllabus for the proposed course. (Note that rotating topics courses should still submit a sample syllabus to illustrate the kind of content that will be included.) Before uploading, ensure that the syllabus contains:

- Student learning outcomes explaining what students will be able to do after successfully completing the course. These should use *observable*, *measurable* action verbs.
- Required and recommended readings for the course.
- Name of instructor(s) or planned instructor(s). If unknown, list as TBD.
- Materials and Supplies fees, if any.
- Methods by which students will be graded
- The grading scheme used in the course (e.g., what constitutes an A, an A-, etc.), along with information on current UF grading policies for assigning grade points. This may be achieved by including a link to the [university grades and grading policies](https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/).
- A 15 week calendar or schedule of topics with enough detail to illustrate weekly topics, readings, and assignments (asynchronous or modular courses can arrange by modules rather than weeks).
- A statement related to class attendance, make-up exams and other work such as: "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click [here](https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/) to read the university attendance policies."
- A statement related to accommodations for students with disabilities such as: "Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. [Click here to get started with the Disability Resource Center](https://disability.ufl.edu/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.
- A statement informing students of the online course evaluation process such as: "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/>."

Response:

All Items Included

University of Florida
College of Public Health and Health Professions
**PHC 6XXX: Public Health Methods II:
Applications for Practice (3 credits)**
Semester: Spring 2025
Delivery Format: Blended

Class Meeting Information: (Meeting days/time/room #, canvas site - TBD)

Instructor Name: Dr. Julia R. Varnes

Office Location: HPNP 4133

Phone Number: 352-294-5382

Email Address: jrvarnes@ufl.edu

Office Hours: Tues 1:30pm-2:30pm; Wed 9:30am-10:30am

Teaching Assistants: TBD

Preferred Course Communications: UFL Email

Pre-Requisites: *PHC 6XXX, Public Health Methods I: Quantitative Foundations*

I. PURPOSE & OUTCOME

Course Description

The second of two courses focusing on public health/global health research and practice using quantitative and qualitative methods. This course introduces qualitative and mixed methods and their relevance to rigorous public health research and practice, emphasizing using qualitative methods to conduct needs and capacity assessments within communities and organizations.

Relation to Program Outcomes

This course is associated with the following MPH core competencies as outlined by the Council on Education for Public Health ([CEPH, 2021](#)):

- D2.01: Apply epidemiological methods to settings and situations in public health practice.
- D2.02: Select quantitative and qualitative data collection methods appropriate for a given public health context.
- D2.03: Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.
- D2.04: Interpret results of data analysis for public health research, policy, or practice
- D2.07: Assess population needs, assets, and capacities that affect communities' health.

Course Objectives

1. Distinguish between different types of public health assessments, including their purpose.
2. Differentiate between quantitative and qualitative paradigms.
3. Compare popular qualitative data analysis methods.
4. Select an approach, data collection methods, and data analysis to appropriately assess the needs, assets, and capacities that affect the health of a community.
5. Using an existing dataset, analyze qualitative data.
6. Interpret qualitative data analysis results.
7. Write a professional summary of the methods, results, and interpretation of a scientific investigation.

8. Identify appropriate dissemination methods to communicate assessment findings to interest holders.
9. Define mixed methods research/evaluation.
10. Distinguish mixed methods from mixed modalities.
11. Discuss different social, political, and economic influences that can be encountered while developing a needs assessment.
12. List action items that researchers must take to protect human subjects during the data collection and recruitment process.
13. Critically evaluate the strengths and limitations of applied assessment studies.

Alignment of Course Objectives, Content, and Assessment

Objective	Module for Instruction of Content	Assessment Method(s)
1. Distinguish between different types of PH assessments, including purpose	3,4,5,6	<ul style="list-style-type: none"> • Exams 1 & 2 • Group project
2. Differentiate between qualitative and quantitative research paradigms	1	<ul style="list-style-type: none"> • Exam 1
3. Compare popular qualitative data analysis methods	10, 11	<ul style="list-style-type: none"> • Exam 3 • Group project
4. Select an approach, data collection methods, and data analysis to appropriately assess the needs, assets, and capacities of a community	7, 8, 9, 10, 11, 12, 14 (emphasis throughout)	<ul style="list-style-type: none"> • Exams 2 & 3 • Group project
5. Using an existing dataset, analyze qualitative data	12	<ul style="list-style-type: none"> • Assignment 5
6. Interpret qualitative data analysis results	13	<ul style="list-style-type: none"> • Assignment 5 • Exam 3
7. Write a professional summary of the methods, results, and interpretation of a scientific investigation.	15	<ul style="list-style-type: none"> • Assignment 1 • Assignment 6
8. Identify appropriate dissemination methods to communicate assessment findings to interest holders.	15	<ul style="list-style-type: none"> • Exam 3 • Group project
9. Define mixed methods research/evaluation.	2, 14	<ul style="list-style-type: none"> • Exam 1
10. Distinguish mixed methods from mixed modalities	2, 14	<ul style="list-style-type: none"> • Exams 1 & 3 • Group Project

11. Discuss different social, political, and economic influences that can be encountered while developing a needs assessment.	6	<ul style="list-style-type: none"> • Exam 2 • Group project
12. List action items that researchers must take to protect human subjects during the data collection and recruitment process.	9	<ul style="list-style-type: none"> • Assignment 3 • Quiz 2
13. Critically evaluate the strengths and limitations of applied assessment studies.	14 (theme throughout)	<ul style="list-style-type: none"> • Assignment 1 • Assignment 6

Blended Learning

What is blended learning and why is it important?

A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

What is expected of you?

You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

II. DESCRIPTION OF COURSE CONTENT, FORMAT, & ACCESS

Topical Outline/Course Schedule

Week/ Dates			Assignments Due
1	Course Overview Qualitative & Quantitative Research Paradigms -overview of differences between qualitative and quantitative research -define key assumptions of each type of paradigm	<ul style="list-style-type: none"> • Padgett Chapter 1, <i>Introduction</i> • Padgett Chapter 2, <i>Choosing the right qualitative approach</i> • OPTIONAL: Atieno (2009). An analysis of the strengths and limitations of qualitative and quantitative research paradigms. <i>Problems of Education in the 21st Century</i>, 13. 	Syllabus Quiz Peer Introductions Module 1 Practice Quiz
2	Mixed Methods Designs -define mixed methods research and evaluation -distinguish mixed methods from mixed modalities	<ul style="list-style-type: none"> • Padgett Chapter 3, <i>Mixed Methods</i> • Fetters et al. (2013). Achieving integration in mixed methods designs—Principles and practices. <i>Health Services Research</i>, 48(6 pt 2), 2134-2156. 	Module 2 Practice Quiz

3	<p>Introduction to Public Health Assessments</p> <ul style="list-style-type: none"> -brief overview of PH assessments -assessment versus surveillance -strengths-based versus needs-based approaches in assessment -role of social justice frameworks 	<ul style="list-style-type: none"> • CDC (2016). <i>Different types of health assessments</i>. https://www.cdc.gov/healthyplaces/types_health_assessments.htm • Aschengrau, <i>Essentials of Epidemiology in Public Health</i>, Chapter 14: Critical review of epidemiological studies 	Module 3 Practice Quiz
4	<p>Introduction to Public Health Assessments: Impact & Policy Assessments</p> <ul style="list-style-type: none"> -Health Impact Assessment -Policy Impact Assessment - 	<ul style="list-style-type: none"> • CDC Office of Policy, Performance, and Evaluation. Policy Analysis • Walt et al. (2008). 'Doing' health policy analysis: Methodological and conceptual reflections and challenges. <i>Health Policy Planning</i>, 23. 10.1093/heapol/czn024 • Buse et al. (2018). Towards environmental health equity in health impact assessment: innovations and opportunities. <i>International Journal of Public Health</i>, 64: 15-26. • Sohn et al. (2018). Avenues of influence: The relationship between health impact assessment and determinants of health and health equity. <i>Journal of Urban Health</i>, 95: 754-764. 	Module 4 Practice Quiz
5	<p>Introduction to Public Health Assessments: Environment Assessments</p> <ul style="list-style-type: none"> -Environmental impact assessment -Human health risk assessment -Public health assessment -Microbial risk assessment 	<ul style="list-style-type: none"> • Tobias et al. (2020). Environmental sustainability assessment of multi-sectoral energy transformation pathways: Methodological approach and case study for Germany. <i>Journal of Cleaner Production</i>, 287. • Stathas et al. (2023). Quantitative microbial risk assessment of Salmonella in fresh chicken patties. <i>Food Research International</i>, 178. 	Module 5 Practice Quiz Assignment 1: Critique a quantitative assessment or surveillance paper.
6	<p>Introduction to Public Health Assessment: Community & Needs Assessments</p> <ul style="list-style-type: none"> -Community health assessment -Community health needs assessment -Rapid community assessment -Assessing needs and assets <p>Needs Assessments: Sociopolitical and Economic Considerations</p> <ul style="list-style-type: none"> -discuss social, political, and economic influences that can be encountered when developing a needs assessment 	<ul style="list-style-type: none"> • Grant et al. (2015). Community health needs assessment: A pathway to the future and a vision for leaders. <i>The Health Care Manager</i>, 34(2), p. 147-156. • Cain et al. (2016) The power of community voices for enhancing community health needs assessments. <i>Health Promotion Practice</i>, 18(3). • Soriano (2013). Chapter 2: Sociopolitical and economic considerations. In <i>Conducting needs assessments: A multidisciplinary approach</i>. Sage. • Moran Jackson et al. (2018). Using the transformative paradigm to conduct a mixed methods needs assessment of a marginalized community: Methodological lessons and implications. <i>Evaluation and Program Planning</i>, 66, p. 111-119. 	Module 6 Practice Quiz Exam 1 (Modules 1-5)
7	<p>Needs Assessments: Integrating Reviews</p> <ul style="list-style-type: none"> -overview of literature reviews -introduce systematic reviews and meta-analyses -discuss role of reviews within the needs assessment process 	<ul style="list-style-type: none"> • UF Library resources. https://guides.uflib.ufl.edu/SR/Types • Nelson (2014). Systematic reviews. In <i>Systematic Reviews to Answer Health Care Questions</i>. Lippincott Williams & Wilkins. • Ravghi et al. (2023). A scoping review of community health needs and assets assessment: Concepts, rationale, tools and uses. <i>BMC Health Serv Res</i>, 23(1), 44. 	Module 7 Practice Quiz Assignment 2: Critique of Written Public Health Assessment Report In-class activity (ICA): Meet with your group; prepare for Part 1 of group project
8	<p>Design & Alignment in PH Assessments</p> <ul style="list-style-type: none"> -discuss how to select an approach and align it with data collection methods and analysis to appropriately assess needs/assets/capacities of community 	<ul style="list-style-type: none"> • Padgett Chapter 4, <i>Getting Started: Study Design & Sampling</i> • Heitner K. L., & Sherman K. C. (2014). Chapter 8: Aligning the Problem, Research Objectives, Research Questions, and Research Design. In <i>Dissertation Field Guide</i>. 	Module 8 Practice Quiz Part 1 of Group Project

9	<p>Ethical Considerations</p> <ul style="list-style-type: none"> -actions researchers must take to protect human subjects during the data collection and recruitment process -focus on ethics as they relate to qualitative research 	<ul style="list-style-type: none"> • Padgett Chapter 5, <i>Ethical Issues in Qualitative Research</i> • Glesne, C. (2011). Chapter 6: But is it ethical? Considering what is “right.” In <i>Becoming qualitative researchers: An introduction</i> (4th ed.) (pp. 162-183). Boston, MA: Pearson. 	<p>Module 9 Practice Quiz</p> <p>ICA, Assignment 3: Ethical Scenarios in Qualitative Research</p>
10	<p>Qualitative Data: Data Collection Methods, Part 1</p> <ul style="list-style-type: none"> -Overview -Focus Groups -Interviews -Developing protocols -focus on how to choose appropriate data collection methods given research or evaluation question 	<ul style="list-style-type: none"> • Padgett Chapter 7, <i>Interviewing & Use of Documents</i> 	<p>Module 10 Practice Quiz</p> <p>ICA, Assignment 4: Developing an Interview Guide</p>
11	<p>Qualitative Data: Data Collection Methods, Part 2</p> <ul style="list-style-type: none"> -Observations -focus on how to choose appropriate data collection methods given research question <p>Qualitative Data Collection in Practice</p>	<ul style="list-style-type: none"> • Padgett Chapter 6, <i>Entering the Field & Conducting Observations</i> 	<p>Module 11 Practice Quiz</p> <p>ICA: Conduct Interviews</p> <p>ICA: Meet with your group; prepare for Part 2 of group project</p>
12	<p>Qualitative Data Analysis & Interpretation</p> <ul style="list-style-type: none"> -Transcription -Data analysis methods & software -Braun & Clarke’s 6 steps for thematic analysis <p>Qualitative Data Analysis in Practice</p> <ul style="list-style-type: none"> -developing codes and themes 	<ul style="list-style-type: none"> • Padgett Chapter 8, <i>Data Analysis & Interpretation</i> • Neergaard et al. (2009) Qualitative description – the poor cousin of health research? <i>BMC Medical Research Methodology</i>, 9(52). • Bryne (2022). A worked example of Braun and Clarke’s approach to reflexive thematic analysis. <i>Quality & Quantity</i>, 56, 1391-1412. • Linneberg & Korsgaard. (2019). Coding qualitative data: A synthesis guiding the novice. <i>Qualitative Research Journal</i>. • Hamilton et al. (2023). Exploring the Use of AI in Qualitative Analysis: A Comparative Study of Guaranteed Income Data. <i>International Journal of Qualitative Methods</i>, 22. 	<p>Module 12 Practice Quiz</p> <p>Exam 2 (Modules 6-11)</p> <p>Part 2 of Group Project</p>
13	<p>Interpretation of Findings</p> <ul style="list-style-type: none"> -Qualitative findings -Integrating mixed method findings <p>Qualitative Data Interpretation in Practice</p>	<ul style="list-style-type: none"> • Padgett Chapter 8, <i>Data Analysis & Interpretation</i> • Patton (1999). Enhancing the quality and credibility of qualitative analysis. <i>Health Services Research</i>. 	<p>Module 13 Practice Quiz</p> <p>Assignment 5: Qualitative Analysis & Interpretation</p> <p>ICA: Meet with your group; prepare for Part 3 of group project</p>
14	<p>Addressing Rigor in Qualitative and Mixed Method Designs</p>	<ul style="list-style-type: none"> • Padgett Chapter 9, <i>Strategies for Rigor</i> • Johnson et al. (2017). Pillar integration process: A joint display technique to integrate data in mixed methods research. <i>Journal of Mixed Methods Research</i>, 13 (3). https://doi.org/10.1177/155868981774 	<p>Module 14 Practice Quiz</p> <p>Part 3 of Group Project</p> <p>ICA: Identify and meet with your partner for Assignment 6.</p>
15	<p>Report Writing</p> <ul style="list-style-type: none"> -focus on skillset for writing summaries of methods/results/interpretation of scientific investigation -emphasis on reporting for assessments -writing briefs <p>Dissemination Methods</p> <ul style="list-style-type: none"> -identify appropriate dissemination methods to communicate assessment findings to stakeholders -introduction to variety of communication methods; emphasis on needs of community and cultural concordance 	<ul style="list-style-type: none"> • Padgett Chapter 10, <i>Telling the Story: Writing up the qualitative study</i>. • O’Brien et al. (2014). Standards for Reporting Qualitative Research. <i>Academic Medicine</i>, 89(9), 1245-251. 	<p>Module 15 Practice Quiz</p> <p>Assignment 6: Comparison of Methodological Differences</p>
	<p>FINAL REPORT DUE Monday of Final Exam week</p> <p>Final Exam Deadline as noted by UF</p>		<p>Final Group Project Due</p> <p>Exam 3 (Modules 12-15)</p>

*Readings may change during the course of the semester. Check Canvas for the list of required readings for each module.

Course Materials & Technology

This course will use the Canvas CMS. If you experience technical difficulties, please contact the UF Help Desk (learning-support@ufl.edu; 352-392-HELP – select option 2).

UF Internet (eduroam) is available at thousands of locations worldwide!

[UF students can access eduroam](#) (highspeed WiFi) for free with their GatorLink log-in credentials. The eduroam network is fast and secure and has more than 10,000 wi-fi hotspots in 106 countries and territories worldwide. Many of these locations are in open spaces and/or large communal rooms, so you can get online while physically distancing and following CDC guidelines in an air-conditioned space. Access is available in rural areas, too! [Here's a link to all the eduroam sites.](#)

Required Textbook: Padgett, D. K. (2012). *Qualitative and Mixed Methods in Public Health*. Sage Publications.

Additional Required Readings: Posted within each module on the course website.

Additional Academic Resources (see Section V for additional student services)

- [Career Connections Center](#): Reitz Union 1300, 352-392-1601. Career assistance and counseling services.
- [Library Support](#): Receive assistance in using the libraries or finding resources.
- [Teaching Center](#): General study skills and tutoring
1317 Turlington Hall, 352-392-2010; or, to make a tutoring appointment: 352-392-6420.
- [Writing Studio](#): Help with brainstorming, formatting, and writing papers. 2215 Turlington Hall, 352-846-1138.
- Student Complaints On-Campus: [Visit the Student Honor Code & Student Conduct Code page for more info.](#)
On-Line Students Complaints: [View the Distance Learning Student Complaint Process.](#)

III. Academic Requirements & Grading

ASSIGNMENTS	Points
Syllabus Quiz	0
Peer Introduction Discussion Post	1
Assignments (six at 5 or 7 pts each)	36
Exams (three at 8 pts each)	24
Group Project	30
Group & Self-Assessment	1.5
Module Self-Check (15 at 0.5 pt each)	7.5
Total	100

Grading Scale

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

Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	.67	0
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Please be aware grades of C- (or below) are not acceptable for graduate students. Graduate students' GPA must be at least 3.0 in all graduate courses (≥5000 level). A grade of C will count toward the graduate degree only there are sufficient credits in graduate courses been earned with a B+ or higher.

Information on current UF grading policies can be found at: <https://catalog.ufl.edu/graduate/regulations/>

Description of Graded Course Assignments

- **Syllabus Quiz:** Students are asked to complete a brief quiz on the syllabus prior to unlocking the course content on Canvas. **NOTE:** While this quiz is ungraded, students must receive a 100% to unlock course materials. Students will NOT be able to access course materials without passing the quiz.
- **Peer Introduction – Canvas Discussion (1 point):** Students will post a brief introduction of themselves and their past or anticipated experiences in working with qualitative data. This assignment is due at the end of Week 1 and must be completed before moving onto Week 2 content. Check Canvas for details.
- **Assignment 1 – Critique of a Peer-Reviewed Assessment or Surveillance Paper (7 pts):** Students will select from a list of provided quantitative-focused peer-reviewed articles. They will then write a 2-page paper discussing the strengths and limitations of that study. This assignment should be 2-pages (typed, 1-inch margins, 10- to 12-point serif font, double spaced). Students are required to follow the guidelines outlined in the assignment guidelines (posted to Canvas).
- **Assignment 2 – Critique of Written Report of a Public Health Assessment (7 pts):** Students will select from a short list of articles that that discuss the mixed methods or mixed modes process or findings of a needs assessment. They will then provide a brief summary of the needs assessment, including its purpose, methods, and results, an interpretation of whether the author took a strengths-based approach, and a discussion of how social, political, or economic factors were accounted for. This assignment should be 2-pages (typed, 1-inch margins, 10- to 12-point serif font, double spaced). Students are required to follow the guidelines outlined in the assignment guidelines (posted to Canvas).
- **Assignment 3 – Ethical Scenarios in Qualitative Research (5 pts):** Students will work in small discussion groups and respond to three ethical scenario prompts related to mixed methods or qualitative research. These scenarios will focus on qualitative data collection and recruitment. Submit this assignment via the Canvas Discussions assignment (4-pts). Each student must respond to at least one group's post (1-pt). Students are required to follow the guidelines outlined in the assignment guidelines (posted to Canvas).
- **Assignment 4 – Interview Guide (5 pts):** Working individually or in groups of 2-3, and using guidance from in-class materials, students will create a qualitative interview guide/protocol. Details on how to select the population and topic of interest are outlined in Canvas. This assignment is submitted via Canvas. Once submitted, you will receive feedback that you are expected to incorporate before conducting the interviews as part of an in-class activity.
- **Assignment 5 – Qualitative Analysis (5 pts):** Students will use a designated qualitative interview or focus group transcript. Students are to independently code the interview using thematic analysis. Students will then submit the coded transcript, list of codes, themes, and subthemes with operational definitions, and a 1-2 page written reflection on the data analysis process. Students are required to follow the guidelines outlined in the assignment (posted to Canvas).
- **Assignment 6 – Comparison and Reflection of methodological differences (7 pts):** Using the two articles reviewed as part of Assignment 1 & 5 as their basis, students will

create a 5-10 minute video recording their observations on the differences between public health assessments and practices that are quantitative-focused, quantitative-focused, or mixed methods or mixed modes focused. Students are encouraged to work in pairs, selecting a peer who chose at least one different article for prior assignments. This is to allow for a richer discussion of differences across the observed studies. In this video, students are expected to address considerations for rigor. Specific requirements are outlined on Canvas.

- **Exams (24 pts):** There will be 3 exams total. Exams are administered via Canvas using Lockdown Browser. Although the exams are taken outside of class and could thus be considered open-book, the exams are timed and require synthesis of course material. You will not have time to “look-up” answers. Exams include a mix of multiple-choice and short essay questions. While exams focus on the course content covered since the previous exam, you are responsible for any course material presented earlier as well. **Each exam is worth 8 points each.**
- **Group Project (27 pts):** Students will work in groups to compose a proposal for a mixed methods of qualitative public health assessment. Early in the semester, students will be assigned groups based on your public health areas of interest. The assignment will be submitted in stages:
 - **Part 1:** This portion will include the research question, type of public health assessment, approach to conducting the assessment, and a rationale for choices. (3 pts)
 - **Part 2:** This portion will include the research design and data collection methods along with supporting rationale, as well as sociopolitical, economic, and ethical considerations. (3 pts)
 - **Part 3:** This portion will include the data analysis plan with rationale and attention to trustworthiness. (3 pts)
 - **Final written report:** The final written report will include parts 1-3 **with edits** and an additional section on the dissemination plan with supporting rationale. (21 pts)
- **Group & Self-Assessments (1.5 pts):** Students will assess the quantity and quality of their own work and their group members work.
- **Module Self-Check (7.5 points):** At the end of each of the 154 modules, students will complete a knowledge self-check in the form of a closed-response quiz assessment. Each module self-check is valued at 1-point. Students will have two opportunities to complete the self-check with automatic feedback provided after each. The lowest module self-check quiz will be dropped at the end of the semester.

IV. CLASS POLICIES

Assignment Policy: Be sure to review assignment descriptions in the course syllabus and in Canvas, and take note of any additional in-class guidance that is given for each assignment. Please note that important and helpful information about your assignments will be provided in class. Students are expected to do their best work and to turn in work on time. Some deadlines are self-imposed and will be determined by the specific assignment.

- Unless otherwise noted, assignments are due at 11:57pm on the date indicated. Please make efforts to turn assignments in early. **Make back-up copies of all your work**, as some assignments may not be returned and Canvas access may expire after the semester ends. All written work must be typed, unless otherwise indicated. Submitting the incorrect document will not be accepted as an excuse for late or missing work.
 - *Some assignments will not be accepted late. Others are subject to a 10% deduction in grade for every day it is late.* (Check assignment details in Canvas.)
 - I do recognize that personal circumstances arise (life happens) that may interfere with your ability to meet a deadline. If these unanticipated events do occur, please let me know as soon as possible. I will not be receptive to retrospective requests for

extensions without a compelling and evidenced rationale.

Attendance Policy: Class attendance is expected. Students are expected to notify the instructor, in advance, when you know you will need to miss, be late to, or leave early from class. If you have an unexpected absence that causes you to miss an in-class activity or discussion, you must reach out to the instructor within 48-hours of the absence (and provide documentation) to receive instructions for make-up work.

Excused absences must be consistent with university policies in the Graduate Catalog (<https://catalog.ufl.edu/graduate/regulations/#text>). Additional information can be found here: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Electronics Policy: Please bring your laptop or tablet to every class period. Laptops and other electronics should only be used when appropriate for taking notes and/or completing in-class activities. As noted under the Professionalism assignment, professionalism points may also be deducted for browsing the internet (unless part of a class activity), texting, or any other behaviors that are disruptive to your instructor or peers.

Extra Credit Policy: There is no extra credit and there are no extra credit assignments. Additionally, no points will be “given” at the end of the semester. University Policy: Asking for extra points after your course is completed is an **HONOR OFFENSE**.

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.”

Make-up Policy: If a student fails to submit either a **quiz, exam, or assignment on-time**, they will be provided an opportunity to submit after the deadline provided they have an acceptable reason for missing the deadline. Decisions to allow students to make-up requirements after their deadline will be made by the course instructor after consulting the university-wide attendance policies specified in the [UF Graduate Catalog](#).

Netiquette, Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. I expect that students will show respect to their peers and instructor in all online communications. I will not tolerate improper language and disparaging comments; these actions will result in disciplinary action. Review [this resource](#) for information on the expected behavior of students when communicating with peers and instructors online.

Title IX: University of Florida has zero tolerance for sexual discrimination, harassment, assault/battery, dating violence, domestic violence, or stalking. Students are encouraged to report any experienced or witnessed occurrences to law enforcement and/or one of UF’s Title IX Coordinators. Students can [report incidents](#) or learn more about their [rights and options](#) here. Or contact Student Conduct and Conflict Resolution at 202 Peabody Hall, 352-392-1261.

V. STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

To ensure that we have a great semester, remember --
*All transactions and relationships are enriched by courtesy:
Be considerate of one another during group work. All ideas have merit.
Be considerate of your classmates and the professor during class meetings by being attentive, power-off technology, and be prepared to fully participate in each class.*

Academic & Personal Integrity: I expect and assume that you will be honest with me in all aspects of your conduct regarding our course. In return, I will do the same with you. By formally registering for coursework at the University of Florida, you 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 honesty and integrity by abiding by the Honor Code." 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."

[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. Violations of the Honor Code will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

Faculty Course Evaluation Process: I value your 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 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/>.

Professionalism: Your active and thoughtful participation in class activities and collaborative discussions is necessary for this course. Thus, you are expected to come to each class adequately prepared and ready for active engagement. You are also expected to submit assignments that are professionally formatted and free from grammar or spelling errors. Failure to do so could affect your grade.

VI. SUPPORT SERVICES

Accommodations for Students with Disabilities or Different Abilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, it requires that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability (or different-ability) that affects your learning, please reach out to the [Disabilities Resource Center \(DRC\)](#). And then share your accommodation letter with your instructor as quickly as possible to ensure you have access for the full semester.

If you did not register formally, but you know you have different learning, behavioral, or other needs that may affect your performance in the course, tell me and I will help you.

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, please talk with an instructor and/or seek help through University resources available to you.

- [Counseling and Wellness Center](#): Individual counseling, group counseling, and online resources are available to UF students at no charge. Also psychological assessment, intervention, and assistance for math and test anxiety. Visit the website or call 352-392-1575. If you are having a crisis, you can call anytime and ask to speak to the counselor on call.
- [GatorWell Health Promotion services](#): GatorWell provides health-related resources, information, and individual services to students. Recommended services: Wellness Coaching for Academic Success (virtual appointments available).
- The [Student Health Care Center](#), 352-392-0627, 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.
- [UMatter, We Care](#): Available for students who are experiencing personal life disruptions that may affect their academics. U Matter can help you identify resources and communicate with instructors on your behalf. 352-294-CARE (2273), umatter@ufl.edu
- [University Police Department](#): Visit their website or call 352-392-1111 (or 9-1-1 for emergencies).
- [Alachua County Crisis Center](#): Visit the website or call the hotline - 352-264-6789
- [Meridian Behavioral Healthcare](#), 352-374-5600
- **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](#).

Do not wait until you reach a crisis to come in and talk with your instructor. 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.

Course|New for request 20041

Info

Request: POS 6XXX Maximum Likelihood Estimation

Description of request: Requesting a course number for a course that I have taught in political science for some 15 years every fall. It is required of all PhD students who choose methodology as the minor field in their PhD requirements. We have a three course quantitative sequence,, and this course, Maximum Likelihood Estimation (MLE), is a fourth one . It is a training in applied statistical analysis for political scientists, and is not a course that deals with statistical theory. In contemporary political science departments and research, MLE is a necessary tool for achieving meaningful statistical analysis. MLE is a touchstone course in most R1 departments of Political Science.

Submitter: Badredine Arfi barfi@ufl.edu

Created: 8/6/2024 4:28:18 PM

Form version: 13

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:
POS

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:
POS6XXX: Maximum Likelihood Estimation

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:
Maximum Likelihood Estimation

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 *<i>currently</i>* *<i>planned</i>* 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 <i>on average </i>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 Maximum Likelihood Estimation (MLE) and its applications in political science. Introduces Generalized Linear Models (GLMs) for categorical and limited dependent variables with a focus on political phenomena. Delves into survival analysis for modeling duration - dependent political data . Emphasizes practical application and advanced statistical understanding in American politics, comparative politics, and international relations.

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:

POS 6737: Data Analysis &

POS 6747: Topics in Political Research Methodology (Linear Models)

Completing Prerequisites:

- Use “&” and “or” to conjoin multiple requirements; do not use 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:

**

- *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 offered in the political science department every fall. It is required of all PhD students who choose methodology as the minor field in their PhD requirements. I have been teaching this course for more than 15 years every fall. We have a three course quantitative sequence, which consists of POS 6737 (Data Analysis), POS 6747 (Linear Models), and this course, Maximum Likelihood Estimation (MLE). MLE is distinct from the first two courses in our sequence (and from POS 6757 Survey Research). It is meant to be a training in applied statistical analysis for political scientists, and is not a course that deals with statistical theory. Students in political science are not necessarily proficient in statistical theory and do not need to be to do applied statistical analysis in social and political science. In contemporary political science departments and research, MLE is a necessary tool for achieving meaningful statistical analysis. Indeed, MLE is a touchstone course in most R1 departments of Political Science.

Course Objectives

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

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:

Generalized Linear Models in Political Science:

1. Introduction and Overview: GLMs & MLE in Political Science Research
 - a. Introduction to Generalized Linear Models (GLMs) and Maximum Likelihood Estimation (MLE) with examples from political science research.
 - b. Applications in American politics (e.g., voter turnout), comparative politics (e.g., regime type classification), and international relations (e.g., alliance formation).
 2. Deeper into MLE & Model Diagnostics in Political Science
 - a. In-depth exploration of MLE and diagnostic techniques for model validation.
 - b. Case studies from political science literature, including election forecasting (American politics), corruption measurement (comparative politics), and conflict prediction (international relations).
 3. Binary Models: Logit and Probit in Political Behavior Analysis
 - a. Analysis of binary outcomes using Logit and Probit models.
 - b. Practical applications in voter behavior (American politics), democratization likelihood (comparative politics), and treaty ratification (international relations).
 4. Ordinal Outcomes: Ordered Logit and Ordered Probit Analysis in Political Surveys
 - a. Techniques for analyzing ordinal data with Ordered Logit and Ordered Probit models.
 - b. Examples from public opinion on policy issues (American politics), satisfaction with democracy (comparative politics), and conflict intensity (international relations).
 5. Nominal Outcomes: Multinomial Logit and Related Models in Party Choice and Issue Voting
 - a. Analysis of nominal outcomes using Multinomial Logit and related models.
 - b. Applications in studying party choice (American politics), coalition formation (comparative politics), and UN voting behavior (international relations).
 6. Limited Outcomes: Tobit Model in Political Participation and Campaign Contributions
 - a. Use of the Tobit model for analyzing limited dependent variables.
 - b. Practical applications in campaign finance (American politics), political participation (comparative politics), and foreign aid distribution (international relations).
 7. Heckman Model and Other Sample Selection Models in Political Science
 - a. Addressing sample selection bias with the Heckman model and other techniques.
 - b. Case studies in legislative studies (American politics), election fraud detection (comparative politics), and international trade agreements (international relations).
 8. Regression Models for Count Dependent Variables in Legislative Behavior and Conflict Studies
 - a. Application of regression models for count data.
 - b. Examples from legislative bill sponsorship (American politics), protest events (comparative politics), and conflict incidence (international relations).
- Survival Analysis in Political Science
9. The Logic of Survival Analysis in Political Tenure and Conflict Duration
 - a. Introduction to survival analysis and its relevance in political science.
 - b. Applications in congressional career longevity (American politics), regime survival (comparative politics), and peace duration (international relations).
 10. Parametric Models for Single-Spell Duration Data in Political Events
 - a. Exploration of parametric models for analyzing single-spell duration data.
 - b. Practical examples from gubernatorial terms (American politics), cabinet stability (comparative politics), and alliance longevity (international relations).
 11. The Cox Proportional Hazards Model in Political Science

- a. Application of the Cox Proportional Hazards Model.
 - b. Case studies in judicial career length (American politics), democratic transitions (comparative politics), and conflict termination (international relations).
12. Diagnostic Methods for Survival Models in Political Research
- a. Diagnostic techniques for validating survival models.
 - b. Practical applications in political science research, including election cycle effects (American politics), regime change (comparative politics), and arms control agreements (international relations).
13. Inclusion of Time-Varying Covariates in Political Survival Analysis
- a. Incorporating time-varying covariates into survival analysis.
 - b. Examples from policy impact over time (American politics), economic performance and government survival (comparative politics), and international sanctions (international relations).
14. Unobserved Heterogeneities in Survival Analysis in Political Contexts
- a. Addressing unobserved heterogeneities in survival models.
 - b. Case studies in mayoral tenure (American politics), autocratic regime durability (comparative politics), and international conflict resolution (international relations).
15. Models for Multiple Events in Political Science
- a. Techniques for analyzing multiple event data.
 - b. Practical applications in repeated electoral contests (American politics), coups and revolutions (comparative politics), and recurring diplomatic negotiations (international relations).

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:

DISTRIBUTION OF GRADES

10%: Weekly homework exercises.

All assignments are to be uploaded to canvas before the beginning of class on their respective due dates. No late submission will be accepted for any reason (except when justified with university sanctioned documentation). The problem sets will be assigned at the end of the lectures depending on what we cover in the lecture sessions. Students are expected their individual responses to the homeworks. Please beware of plagiarism.

10%: Each student will be assigned "presentations" for exercises practice session of the course which will consist in presenting the weekly assigned homework (this will be fully explained on the first day of class).

30%: Take-Home Final Examination

The final exam is a take-home and open-book, open-computer, open-anything-but-another-human-being (physical or virtual).

40%: A Research Paper

Each student is required to choose in consultation with the instructor a research topic. The student is required to find a dataset suitable for the topic and construct a set of research questions. The goal is to produce a high-quality, potentially publishable research manuscript, using a model (or models) discussed in the course, estimated using python packages.

10%: Paper Presentation.

Each student will present his/her paper at the end of the semester (Data/time: TBD). The presentation will consist of a ppt presentation

Your final cumulative score will be translated into a letter grade according to the following schedule: 93 points or higher = 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-; <60 = E. Information on current UF grading policies for assigning grade points. This may be achieved by including a link to the web page:
<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Instructor(s)

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

Response:
Professor Badredine Arfi, department of political science

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy. A required 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

Accommodations

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 who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started 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.*

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/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/>.*

* *

Response:

Yes

POS 6xxx: Maximum Likelihood Estimation – Fall 2024

Department of Political Science,
University of Florida

Monday: Periods 5-7; TURL 2354
Credit Hours: 3

Instructor: Prof. [Badredine Arfi](#)

Office: 221 Anderson Hall

Office Hours: M 3:15-4:15pm, W 12:30-2:30pm

Or: by appointment

Phone: (352) 273 2357

Email: barfi@ufl.edu

COURSE DESCRIPTION AND OBJECTIVES

The Classical Linear Regression Model (CLRM) is a useful but limited tool for statistically studying most political phenomena. The dependent variables of interest to political scientists often do not fit the assumptions of the CLRM. To address these limitations, methodologists and statisticians have developed sophisticated methods for analyzing data with qualitative and ordinal dependent variables, count models, and situations involving selection bias. Maximum Likelihood Estimation (MLE), as applied in Generalized Linear Models (GLMs) and Survival Models, provides a general framework for estimating models that address these complexities.

This course focuses on applied research in political science, using MLE-based methodologies to analyze data within American politics, comparative politics, and international relations. Students will learn the theory and practical application of GLMs and survival models, using these powerful statistical tools to investigate problems of interest in political science. Students are expected to use these powerful statistical models to research problems that interest them.

The course consists of two parts. The first part deals with several models suited for analyzing problems with categorical and limited dependent variables, commonly known as Generalized Linear Models (GLMs). The second part introduces the framework of event history modeling, also known as survival analysis, where the dependent variable is duration or time-to-event.

The course starts with the basic concepts of statistical analysis in GLMs and incrementally covers more advanced computational methods. By the end of the semester, students will be equipped to conduct applied political research using advanced statistical methodologies.

Computing Language:

Although social scientists are usually trained in using software packages such as Stata, SPSS, Mplus, SAS, and R, data sciences practitioners find those quite limiting and instead use languages such as Python, C++, Julia, and a few others. This course introduces students to learning and using **from scratch** Python. Why? Not only is Python (like R) a free software, but it does also surpass R by far in its practicality and in the availability of very large numbers of powerful packages that make data analysis much richer and more versatile in every field of knowledge.

Yet, Python is quite flexible in its semantics and comes very close to human natural language in many respects. Moreover, by and large, the fields of AI, machine learning, and more generally data sciences use Python, and hence this course will equip social scientists to join ranks with data

scientists in other fields of knowledge in deploying powerful methodologies of AI to produce theoretical and practical knowledge.

In short, doing statistical analysis using Python packages is quite straightforward and surpasses the language Stan (used mostly by statisticians) which R practitioners draw on in developing various R statistical packages.

Because the great majority of social scientists have never been introduced to Python, the course will start from the very beginners' level of Python. No prior knowledge or experience with Python is expected. We will spend together hours learning and applying Python throughout the whole semester. Every session of the course will contain a conceptual as well as a hands-on deployment of Python to analyze datasets pertaining to the session at hand. Students who are familiar with R will quickly realize that the similarities are quite large between the two languages and will have no difficulties moving between the two languages, as well as quickly understanding the versatility and practicality of Python. The class will be 'walked' into installing and deploying Python and various packages needed for the course on their personal computers during the first week of the semester. In learning how to do statistical analysis in any computer language, students must invest in learning 'software-ways' of how to do it, and Python is not unique in this respect.

Course Objectives/Learning Outcomes:

1. **Explain and Interpret Generalized Linear and Survival Analysis Models in Political Science Research:** Students will articulate the concepts and assumptions of generalized linear models and survival analysis and interpret their applications in American politics, comparative politics, and international relations.
2. **Apply Statistical Knowledge to Model Development in Political Science:** Students will demonstrate the ability to apply their statistical knowledge to develop, estimate, and validate both linear and non-linear models using appropriate statistical software, focusing on practical applications in political science research.
3. **Analyze Political Science Data with Advanced Techniques:** Students will employ their statistical knowledge to conduct rigorous data analyses pertinent to their research fields within political science, critically assessing the results and implications for American politics, comparative politics, and international relations.
4. **Synthesize Learning into Applied Political Research:** By the end of the semester, students will synthesize their learning to complete a research paper that employs the methodologies covered in the course. This paper should demonstrate a deep understanding of the statistical models and their practical applications in a specific political science research context, aiming to achieve a high academic standard.

SOME RECOMMENDED TEXTS

Generalized Linear Models, MLE, and more ...

- Michael Smithson and Edgar C. Merkle. 2014. Generalized Linear Models for Categorical and Continuous Limited Dependent Variables. CRC Press.
- Alan Agresti. 2015. Foundations of Linear and Generalized Linear Models. Wiley Press.
- Gerhard Tutz. 2012. Regression for Categorical Data. Cambridge University Press.

Survival Analysis

- Nag, Avishek. Survival Analysis with Python. 2022. CRC.

Python Introductory Books

- Fabio Nelli. 2018. Python Data Analytics with Pandas, NumPy, and Matplotlib. Second Edition. APress.
- Claus Führer, Olivier Verdier, and Jan Erik Solem. 2021. Scientific Computing with Python: High-performance scientific computing with NumPy, SciPy, and Pandas. Second Edition. Packt.
- Robert Johansson. 2019. Numerical Python: Scientific Computing and Data Science Applications with Numpy, SciPy and Matplotlib. Second Edition. APress.
- Ashwin Pajankar. 2022. Hands-on Matplotlib Learn Plotting and Visualizations with Python 3. APress.

ADDITIONAL MATERIAL ON CANVAS

Additional readings and materials (Jupyter Notebooks) will be posted on canvas site for the course at appropriate times during the semester.

REQUIREMENTS AND ASSESSMENT

The requirement for this course is simple (as always): work diligently and persistently. This includes attending classes and working regularly on the computer applications, the homeworks, and the research paper. Each student should expect to be spending many hours learning how to excel in using the python packages used to estimate the models discussed in the class.

There will be several homework assignments that students must complete and turn in. The homework assignments are due on the specified dates; no late submission is acceptable. All materials related to a specific homework should be collected in a Notebook and uploaded to canvas. There will also be a final take-home exam, the specifics of which will be discussed in class in time. Roughly speaking, it will consist in answering several questions by analyzing a dataset that will be provided to you with the questions.

A major component of the course evaluation will be a term research paper. Each student will produce a manuscript of high quality using an appropriate modelling strategy (specifics of the paper are discussed down below).

DISTRIBUTION OF GRADES

10%: Weekly homework exercises.

All assignments are to be uploaded to canvas before the beginning of class on their respective due dates. No late submission will be accepted for any reason (except when justified with university sanctioned documentation). The problem sets will be assigned at the end of the lectures depending on what we cover in the lecture sessions. Students are expected their individual responses to the homeworks. Please beware of plagiarism.

10%: Each student will be assigned “presentations” for exercises practice session of the course which will consist in presenting the weekly assigned homework (this will be fully explained on the first day of class).

30%: Take-Home Final Examination

The final exam is a take-home and open-book, open-computer, open-anything-but-another-human-being (physical or virtual).

40%: A Research Paper

Each student is required to choose in consultation with the instructor a research topic. The student is required to find a dataset suitable for the topic and construct a set of research questions. The goal is to produce a high-quality, potentially publishable research manuscript, using a model (or models) discussed in the course, estimated using python packages.

10%: Paper Presentation.

Each student will present his/her paper at the end of the semester (Data/time: TBD). The presentation will consist of a ppt presentation for about 15 minutes followed by 5 minutes of Q & A.

Your final cumulative score will be translated into a letter grade according to the following schedule: 93 points or higher = 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-; <60 = E. Information on current UF grading policies for assigning grade points. This may be achieved by including a link to the web page:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

SPECIFICS ON THE RESEARCH PAPER

For the instructor to provide guidance in the preparation of the paper, students are required to turn in various brief intermediate papers throughout the semester as follows:

1. Find a topic that interests you and a suitable **research dataset** to analyze using a statistical method that falls within the scope of the material covered in this course. Important proviso: you should be guided by the fact that this is a paper for a methods course and hence the emphasis will be put more on the methods part of the paper, and not on the substantive research question that the paper is pursuing (of course, the two aspects are not mutually exclusive). Submit a report summarizing this step of the paper.
Due Date: September 16
2. Report on the data and various aspects of it. **Due Date: October 7**
3. Begin developing the research design and hypotheses as well as choosing the right statistical model for that purpose. Students are strongly discouraged from using what is commonly called as *logit* or *probit*. These are too simple to provide enough learning challenges, and hence this would defeat the learning goals of the course through a research paper. Submit a short report on this.
Due Date: October 28
4. Finalize the research paper focusing mostly on the **methodological aspect** of it without of course neglecting the substantive questions:
 - Show and discuss how you preprocess the data.
 - Construct an appropriate model for the estimation and choose the corresponding python package for that purpose.
 - Carry out a full analysis considering the assumptions and limitations of the model and the data.
 - Draw conclusions on the validity of the model and suggest potential ways to improve your own analysis.

The final paper should be about 15-20 pages long, including the bibliography. **Due Date: December 2.**

5. Note on the Final Submission of the Paper:

Students are required to submit to canvas a **zip** folder that contains the paper (written in a professional format suitable for an academic journal as word, pdf, or latex file), an annotated python Notebook file displaying their complete code and analysis that one would need to replicate the analysis of the paper from beginning to end, and the final dataset used for the paper and, if need be, supplementary materials that are deemed important to understand the paper and its analysis.

The instructor is committed to ‘walk the walk’ with each student in making his/her research paper a potentially publishable piece.

IMPORTANT DATES

Class Begins	Monday, August 26
Holidays: No classes	September 2: Labor Day October 18-19: Homecoming November 11: Veteran’s Day November 25 - 30: Thanksgiving Break
Class Ends	Monday, December 2

COURSE OUTLINE:

Generalized Linear Models in Political Science:

1. Introduction and Overview: GLMs & MLE in Political Science Research
 - Introduction to Generalized Linear Models (GLMs) and Maximum Likelihood Estimation (MLE) with examples from political science research.
 - Applications in American politics (e.g., voter turnout), comparative politics (e.g., regime type classification), and international relations (e.g., alliance formation).
2. Deeper into MLE & Model Diagnostics in Political Science
 - In-depth exploration of MLE and diagnostic techniques for model validation.
 - Case studies from political science literature, including election forecasting (American politics), corruption measurement (comparative politics), and conflict prediction (international relations).
3. Binary Models: Logit and Probit in Political Behavior Analysis
 - Analysis of binary outcomes using Logit and Probit models.
 - Practical applications in voter behavior (American politics), democratization likelihood (comparative politics), and treaty ratification (international relations).
4. Ordinal Outcomes: Ordered Logit and Ordered Probit Analysis in Political Surveys
 - Techniques for analyzing ordinal data with Ordered Logit and Ordered Probit models.
 - Examples from public opinion on policy issues (American politics), satisfaction with democracy (comparative politics), and conflict intensity (international relations).
5. Nominal Outcomes: Multinomial Logit and Related Models in Party Choice and Issue Voting
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 - Applications in studying party choice (American politics), coalition formation (comparative politics), and UN voting behavior (international relations).
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 - Use of the Tobit model for analyzing limited dependent variables.
 - Practical applications in campaign finance (American politics), political participation (comparative politics), and foreign aid distribution (international relations).
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 - Addressing sample selection bias with the Heckman model and other techniques.
 - Case studies in legislative studies (American politics), election fraud detection (comparative politics), and international trade agreements (international relations).
8. Regression Models for Count Dependent Variables in Legislative Behavior and Conflict Studies
 - Application of regression models for count data.
 - Examples from legislative bill sponsorship (American politics), protest events (comparative politics), and conflict incidence (international relations).

Survival Analysis in Political Science

9. The Logic of Survival Analysis in Political Tenure and Conflict Duration
 - Introduction to survival analysis and its relevance in political science.

- Applications in congressional career longevity (American politics), regime survival (comparative politics), and peace duration (international relations).
10. Parametric Models for Single-Spell Duration Data in Political Events
- Exploration of parametric models for analyzing single-spell duration data.
 - Practical examples from gubernatorial terms (American politics), cabinet stability (comparative politics), and alliance longevity (international relations).
11. The Cox Proportional Hazards Model in Political Science
- Application of the Cox Proportional Hazards Model.
 - Case studies in judicial career length (American politics), democratic transitions (comparative politics), and conflict termination (international relations).
12. Diagnostic Methods for Survival Models in Political Research
- Diagnostic techniques for validating survival models.
 - Practical applications in political science research, including election cycle effects (American politics), regime change (comparative politics), and arms control agreements (international relations).
13. Inclusion of Time-Varying Covariates in Political Survival Analysis
- Incorporating time-varying covariates into survival analysis.
 - Examples from policy impact over time (American politics), economic performance and government survival (comparative politics), and international sanctions (international relations).
14. Unobserved Heterogeneities in Survival Analysis in Political Contexts
- Addressing unobserved heterogeneities in survival models.
 - Case studies in mayoral tenure (American politics), autocratic regime durability (comparative politics), and international conflict resolution (international relations).
15. Models for Multiple Events in Political Science
- Techniques for analyzing multiple event data.
 - Practical applications in repeated electoral contests (American politics), coups and revolutions (comparative politics), and recurring diplomatic negotiations (international relations).

IMPORTANT NOTES:

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 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 specifies a number of behaviors that are in violation of this code and the possible sanctions. [Click here to read the Conduct Code](#). If you have any questions or concerns, please consult with the instructor or TAs in this class.

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.

Attendance

Students may only participate in classes if they are registered officially or approved to audit with evidence of having paid audit fees. Students are responsible for satisfying all academic objectives as

defined by the instructor. Absences count from the first-class meeting. Acceptable reasons for absence from or failure to engage in class include illness; Title IX-related situations; serious accidents or emergencies affecting the student, their roommates, or their family; special curricular requirements (e.g., judging trips, field trips, professional conferences); military obligation; severe weather conditions that prevent class participation; religious holidays; participation in official university activities (e.g., music performances, athletic competition, debate); and court-imposed legal obligations (e.g., jury duty or subpoena). Other reasons (e.g., a job interview or club activity) may be deemed acceptable if approved by the instructor.

For all planned absences, a student in a situation that allows an excused absence from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergency situations, students should contact their instructor as soon as conditions permit.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during absence from class or inability to engage in class activities because of the reasons outlined above.

If a student does not participate in at least one of the first two class meetings of a course in which they are registered, and they have not contacted the department to indicate their intent, the student can be dropped from the course. Students must not assume that they will be dropped, however. The department will notify students if they have been dropped from a course.

Students who participate in university-sponsored athletic or scholarly activities are permitted to be absent 12 scholastic days per semester without penalty. A scholastic day is any day on which regular class work is scheduled as defined in the approved university calendar.

Religious Holidays:

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 instructor 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.

The instructor is then obligated to accommodate that particular student's religious observances. Because students represent a myriad of cultures and many faiths, the University of Florida is not able to assure that scheduled academic activities do not conflict with the holy days of all religious groups. Accordingly, individual students should make their need for an excused absence known in advance of the scheduled activities.

Absence due to Illness:

A student who is absent from class or any required class-related activity because of illness should contact the instructor, if feasible, as early as possible prior to the missed class or activity. Students shall be permitted a reasonable amount of time to make up the material or activities covered during an excused absence. Students should contact their college by the deadline to drop a course for medical reasons. Students can petition the [Dean of Students Office](#) to drop a course for medical reasons. The university's policy regarding [medical excuse](#) from classes is maintained by the Student Health Care Center.

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. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.
- Academic Complaints: Office of the Ombuds; [Visit the Complaint Portal webpage for more information](#).
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage for more information](#).

Course|New for request 20601

Info

Request: SWS 6XXX Intro Modeling Soil, Water, and Ecosystem Processes

Description of request: SWES has taught this graduate-level course in summer b semester under special topics course number (SWS 6932) for a few years now, thus SWES would like to now request a real course number to be assigned through the State of Florida.

Submitter: Michael Sisk mjsisk@ufl.edu

Created: 10/17/2024 3:12:08 PM

Form version: 5

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:

SWS

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

- 1 = 1000 level Introductory undergraduate
- 2 = 2000 level Introductory undergraduate
- 3 = 3000 level Intermediate undergraduate
- 4 = 4000 level Advanced undergraduate
- 5 = 5000 level Introductory graduate/professional
- 6 = 6000 level Intermediate graduate/professional
- 7 = 7000 level Advanced graduate/professional
- 8 = 8000 level Advanced professional
- 4/5 = 4000/5000 Joint undergraduate/graduate
- 4/6 = 4000/6000 Joint undergraduate/graduate

**Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Committee) and require separate requests to each body*

Course Number

Enter the three-digit number indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this should 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

Course Title

Enter the title of the course as it should appear in the Academic Catalog. There is a 100-character limit (including spaces and punctuation) for course titles. nbsp;

Response:
Intro Modeling Soil, Water, and Ecosystem Processes

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:
Intro Modeling Soil Water Ecos

Delivery Method

Indicate the primary intended delivery method for this course.

Response:
HB - Hybrid Blend (50-79% of course content taught outside of classroom)

If the course is to be offered through UF Online, please include a memo of support from the UF Online program.

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:
Summer

Effective Year

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

Response:
2025

Rotating Topic

Select "Yes" if the course routinely has varying course titles, topics, and student learning outcomes within or between semesters. Small changes to weekly topics and or texts that do not change the course description or student learning outcomes do not need to have rotating topics designation.

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. Note that credit hours are regulated by Rule 6A-10.033, FAC. If the course will be offered with variable credit, select "Variable" and then indicate the minimum and maximum credits per section. 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. If S/U only, please remember that the syllabus must include a grading rubric that clearly indicates how students will earn S or U grades.

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. If weekly contact hours are not 1:1 for credits (e.g. 4 contact hours per week for a 2 credit course), please explain why.

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 is an introduction into predictive modeling of soil, water, and ecosystem processes. Students learn from the ground up how to transform a conceptual model into a mathematical framework that then will be coded up in a simulation model. This hands-on experience serves the students to recognize how data can best serve models and how models can be used to interpret real world data.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course, or enter N/A if there are none. "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

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 written so that it can be enforced in the registration system.

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 use 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).
- 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:

- 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 for Placement in the Curriculum

Please indicate the degree level (Bachelors, Graduate, Professional) and program(s) (majors, minors, certificates) for which the course will be used. Please indicate if the course is intended for degree requirements or electives. Note: separate program-specific request are required to add a course into program curricula.

Response:

Dynamic models are increasingly used to interpret empirical data. Illustrative models will serve to as an introduction to basic modeling tenets, such as state/flow relationship, mass/energy balance, stability and attractors, and expected results. This course allows students to 1) conceptualize a research question and explore relationships among measurable variables to develop research hypotheses 2) discuss how data (e. g. students' research data) can specifically be used to develop and improve models 3) discover that building a dynamic model is attainable and can be integrated into a research project even if the focus is on laboratory and field work. Together, these skills form a pillar in the development and application of critical thinking and quantitative science in soil water and ecosystem sciences.

Syllabus Content Requirements

<h2>Syllabus Content Requirements</h2>Please upload the syllabus for the proposed course. (Note that rotating topics courses should still submit a sample syllabus to illustrate the kind of content that will be included.) Before uploading, ensure that the syllabus contains:

- Student learning outcomes explaining what students will be able to do after successfully completing the course. These should use <i>observable</i>, <i>measurable</i> action verbs.
- Required and recommended readings for the course.
- Name of instructor(s) or planned instructor(s). If unknown, list as TBD.
- Materials and Supplies fees, if any.
- Methods by which students will be graded
- The grading scheme used in the course (e.g., what constitutes an A, an A-, etc.), along with information on current UF grading policies for assigning grade points. This may be achieved by including a link to the university grades and grading policies.
- A 15 week calendar or schedule of topics with enough detail to illustrate weekly topics, readings, and assignments (asynchronous or modular courses can arrange by modules rather than weeks).
- A statement related to class attendance, make-up exams and other work such as: "Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click here to read the university attendance policies."
- A statement related to accommodations for students with disabilities such as: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started 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.
- A statement informing students of the online course evaluation process such as: "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>.

Response:
All Items Included

SWS 6XXX INTRO MODELING SOIL, WATER AND ECOSYSTEM PROCESSES

TERM: Summer B

FORMAT: Hybrid or fully online

CREDITS: 3

CLASS TIME: Tuesday/Friday Period 3, 11a to 12:15p

CHAT SESSION: Tuesday/Friday 6pm, or as agreed in class

INSTRUCTOR: Stefan Gerber, 3179 McCarty Hall, sgerber@ufl.edu, Phone: 352-294-3174

OFFICE HOURS: Tuesday and Thursday 1-2:30 pm on zoom, other times can be arranged following students' request.

COURSE TA: NA

COURSE WEBSITE: <http://elearning.ufl.edu>

COURSE COMMUNICATIONS: For class-related questions please use discussion board (Weekly Discussion). For private questions use the CANVAS message tool.

PREREQUISITES: None

TEXTBOOK/READING: There is no Textbook. Reading assignments are scientific papers and available on the course website <http://elearning.ufl.edu> or provided via course reserves.

Reading List

El Mezouary, L., and B. El Mansouri. 2021. Groundwater flow equation, overview, derivation, and solution. (B. El Mansouri, A. Moumen, M. El Bouhaddioui, N. Mejjad, I. Elhasnaoui, L. El Mezouary, M. Ben-Daoud, et al., eds.)E3S Web of Conferences 314:04007.

Ellner, S.P., and Guckenheimer, J. An introduction to R for dynamic models in Biology, Lecture Notes, 2009, available online

Menge, D. N. L., S. W. Pacala, and L. O. Hedin. 2009. Emergence and maintenance of nutrient limitation over multiple timescales in terrestrial ecosystems. *The American Naturalist* 173:164–175.

Parton, W., W. L. Silver, I. C. Burke, L. Grassens, M. E. Harmon, W. S. Currie, J. Y. King, et al. 2007. Global-scale similarities in nitrogen release patterns during long-term decomposition. *Science* 315:361–364.

Pianosi, F., K. Beven, J. Freer, J. W. Hall, J. Rougier, D. B. Stephenson, and T. Wagener. 2016. Sensitivity analysis of environmental models: A systematic review with practical workflow. *Environmental Modelling & Software* 79:214–232.

Runkel, R. L. 1996. Solution of the Advection-Dispersion Equation: Continuous Load of Finite Duration. *Journal of Environmental Engineering* 122:830–832.

Sih, D., S. Gerber, P. W. Inglett, and K. S. Inglett. 2016. Comparing models of microbial–substrate interactions and their response to warming. *Biogeosciences* 13:1733–1752.

Wallis, S. 2007. The numerical solution of the Advection-Dispersion Equation: A review of some basic principles. *Acta Geophysica* 55:85–94.

MATERIALS AND SUPPLIES FEES: None

COURSE DESCRIPTION: The course is an introduction into predictive modeling of soil, water, and ecosystem processes. Students learn from the ground up how to transform a conceptual model into a mathematical framework that then will be coded up in a simulation model. This hands-on experience serves the students to recognize how data can best serve models and how models can be used to interpret real world data.

COURSE GOALS AND/OR OBJECTIVES: By the end of this course, students will be able to

- Use their understanding of soil, water and ecosystem processes to create a conceptual model and subsequently convert into mathematical equations and numerical code.
- Effectively assess model results and troubleshoot model bugs and crashes.
- Critically evaluate models through exploration, sensitivity analysis and model-data comparison, and by analyzing and testing model code and equations.
- Identify what data is needed to generate and/or improve a dynamic model.

HOW THIS COURSE RELATES TO THE STUDENT LEARNING OUTCOMES IN THE SOIL WATER AND ECOSYSTEM SCIENCES PROGRAM: Dynamic models are increasingly used to interpret empirical data. Illustrative models will serve to as an introduction to basic modeling tenets, such as state/flow relationship, mass/energy balance, stability and attractors, and expected results. This course allows students to 1) conceptualize a research question and explore relationships among measurable variables to develop research hypotheses 2) discuss how data (e. g. students’ research data) can specifically be used to develop and improve models 3) discover that building a dynamic model is attainable and can be integrated into a research project even if the focus is on laboratory and field work. Together, these skills form a pillar in the development and application of critical thinking and quantitative science in soil water and ecosystem sciences.

INSTRUCTIONAL METHODS: The course is taught in a hybrid fashion with online lecture videos and meetings with the instructor. Meetings are online chats (online sections) or in-person class meetings. Assignments serve to dive deeper into a subject, rather than testing learned material. Students are encouraged to interact and work together through discussion (online discussion board or in person meeting). The instructor’s goal is to create a workshop environment for both online and in-person students.

COURSE POLICIES

ATTENDANCE AND MAKE UP WORK: 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/>.

EXAM POLICY: There will be no final exam. Grade will consist of course assignments and semester project.

ASSIGNMENT POLICY: Assignments and semester project milestones are expected to be completed in time and will be graded. Late assignments carry grade reductions, unless it is a University excused absence (see attendance policy above). Late assignments are 30 % reduction in grade, assignments more than 7 days late will not be accepted. Assignments missed for acceptable reasons (University excused absence) can be made up. Time for make-up is the duration of the absence and starts with the first day of the return. Best practice for make-up is to arrange the new deadline with the instructor. Make-up class presentations should be scheduled with the instructor. The content of make-up homework may or may not be different.

GRADING POLICY: Students will be graded based on a) their homework b) their project and c) their engagement during the class.

Homework Assignments (50% towards final grade): There are a total of 7 homework assignments, these are listed in the course schedule and are graded equally (i.e. each contributes 7.14 % towards the final grade).

Semester Project Model Analysis (40 % towards final grade) Students will devise (or adapt) a specific model to analyze data of their choice and with input from the instructor. The project encompasses a series of deliverables:

- Report on the conceptual model and goals for analysis 10%
- Preliminary model analysis (Informal presentation) 10%
- Model technical report (Model documentation) 10%
- Final presentation: Concise summary of findings (Oral presentation) 10%

Class Engagement (10 % towards final grade). The course lives by interactions among students. Students must be active and present during days of oral presentations and contributing the discussion on the CANVAS board. 5 meaningful discussion posts or responses are required per week.

GRADING SCALE: Final grade will result in weighted percentage points from assignments (50 %), semester project (40 %), and overall class engagement (10 %).

Course Percentage	≥95.0	≥90.0	≥85.0	≥80.0	≥75.0	≥70.0	≥65.0	≥60.0	≥55.0	≥50.0	≥45.0	<45.0
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Information on conversion between letter grade / grade points can be found and the University's grade policy can be found at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

COURSE TECHNOLOGY: This course is facilitated 100% online through Canvas. You may access Canvas from UF's e-Learning webpage: <http://elearning.ufl.edu/>. Please contact the UF Help Desk, <http://helpdesk.ufl.edu>, if you have any technical difficulties with Canvas.

Zoom: The online section will conduct synchronous meetings using ZOOM. ZOOM is integrated into CANVAS. Please follow the 'Zoom Conferences' link on the right-hand side of the course menu. Recordings of the Chat's will also be posted there.

VoiceThread Information: In this course, you will create several narrated presentations. In order to share these presentations with your classmates and instructor, you will utilize VoiceThread. First, you will need to sign in to <https://ufl.voicethread.com/> with your Gatorlink username and password. Next, join the VoiceThread Course Group (the link is provided in Canvas). You MUST join the course group! Once you join the group you will receive a confirmation message

R/RSTUDIO. We will use R as a model development environment. R is freely available online. You may download Rstudio from <https://posit.co/downloads/>. Alternatively, students may access Rstudio through UF Apps (<https://info.apps.ufl.edu/>).

Electronic Devices: In person students are expected to bring a laptop to class with the software needed to run these applications (web browser, Rstudio). If this is not possible, the instructor will work with the student for solution (tablet, use of classroom PC, computer room usage).

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.

Recording: Our class sessions may be audio 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. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited. 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. Please share your privacy concerns with your instructor he will take precautions such as not call on you or ask for screen or video camera. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Use of AI and Generative AI in Assignments and Projects: The ethics for using AI is adapted from Elsevier addressing scientific writing: <https://www.elsevier.com/about/policies/publishing-ethics>. Where students use generative AI and AI-assisted technologies, AI assistance needs to be documented and described. In the process of writing and preparing a presentation, these technologies should only be used to improve readability and language of the work. Applying the technology should be done with human oversight and control and students should carefully review and edit the result, because AI can generate authoritative-sounding output that can be incorrect, incomplete, or biased. Students are ultimately responsible and accountable for the contents of their work. Students should not list AI and AI-assisted technologies as cited references; I maintain that discovery is fundamentally human and must be attributable to human work.

There are exciting possibilities for AI to write code, which is not discouraged in this class. However, students should disclose in their homework and project work the use of AI and AI-assisted technologies, and document and explain how they approached AI support. AI is a new frontier in the classroom. Declaring and describing the use of these technologies supports transparency and trust between students and teacher, will help understanding the value and the limits of AI, both from a teacher and student perspective.

CLASS DEMEANOR OR NETIQUETTE: All members of the class are expected to follow rules of common courtesy in class interactions, email messages, threaded discussions and chats. Please be respectful of other's opinions and avoid rude, insulting or inappropriate comments. Email correspondence should be considered professional communication and be composed accordingly.

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/>.

UF POLICIES

UNIVERSITY POLICY ON ACCOMMODATING 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/>.

UNIVERSITY POLICY ON ACADEMIC CONDUCT: 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>.

GETTING HELP

TECHNICAL HELP For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- <http://helpdesk.ufl.edu>
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

CAMPUS HELPING RESOURCES Students experiencing crises or personal problems that interfere with their general wellbeing 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 LibraryWellness Coaching

- U Matter We Care, <http://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-student-conduct-code/>
- Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>

COURSE SCHEDULE

CRITICAL DATES: *Final project paper is due by midnight on the last exam. Project presentations are on the last day of class.*

WEEKLY SCHEDULE OF TOPICS, REEADINGS AND ASSIGNMENTS:

NOTE: *Readings will be available as pdfs or link to library reserves. Details and deadlines of assignments are available in CANVAS*

Week	Topics	Reading	Assignment
1	Conceptual models State variables and Fluxes First order differential equations	Menge et al., 2009	Conceptual models using insightmaker.com resolving: a) two pool terrestrial carbon cycle b) three pool terrestrial nitrogen cycle model
2	Introduction into programming using R	R modeling Lab	Complete exercises in reading assignment Program a litter decomposition model using Euler method
3	Resolving models with multiple state variables, Equilibria	Sihi et al., 2016	Transfer models from insightmaker.com into R <i>Semester project: Conceptual Model</i>
4	Spatial dimensions, movement of matter and energy	El Mezouary, 2021 Runkel, 1996	Continental groundwater model N diffusion and uptake model <i>Semester Project: Preliminary Model</i>
5	Reaction/Transport Equation Sensitivity Analysis Off-the-shelf differential equation solver	Wallis, 2007 Pianosi et al., 2017	Toxin advection/dispersion <i>Semester Project: Model tests and early analyses</i>
6	Concepts of model-data fusion	Parton et al., 2007	Litter decomposition parameter estimation <i>Semester Project: Final Presentation and Final Report</i>

Due Dates: Assignments and project milestones are due by Friday of the respective week.

Disclaimer: This syllabus represents plans and objectives as determined at the beginning of the semester. As we go through the semester, those plans may need to change to enhance the class learning opportunity and to adjust for class need. Such changes, communicated clearly, are not unusual and should be expected.