# GRADUATE COUNCIL AGENDA OCTOBER 24, 2024 1:00 PM

# 110 GRINTER HALL

# I. <u>ACTION ITEM:</u>

1. Minutes from the September 19, 2024, Graduate Council Meeting (Enclosure 1)

# **CERTIFICATE:**

2. The College of Medicine seeks to modify the curriculum for the graduate certificate in Biomedical Neuroscience (#20444). Ms. Melissa Naidu and R. Jeremy Flint will be present for discussion. (Enclosure 2)

## **CONCENTRATION:**

**3.** The College of Medicine seeks to create a concentration in AI and Drug Discovery for the Master of Science (M.S.) with a major in Medical Sciences (#20593). Dr. Stephan Jahn will be present for discussion. (Enclosure 3)

## FINAL TERM REGISTRATION:

**4.** Final Term Registration. Dr. Michael Martinez will be present for discussion.

# II. <u>INFORMATION ITEM / ADMINISTRATIVE ACTIONS:</u>

- 5. Graduate Curriculum Committee September Minutes and October Agenda (Enclosure 4)
- 6. College of Medicine department merger of Physiology and Aging and Anatomy and Cell Biology (Enclosure 5)
- 7. Graduate Programs Distance or Self-Supporting (No new items)
- 8. Graduate Student Success Center

# GRADUATE COUNCIL MINUTES SEPTEMBER 19, 2024 1:00 PM

# 110 GRINTER HALL & Teleconference (Via Zoom)

MEMBERS PRESENT: Dr. Nicole Stedman (Chair), Dr. Linda Bloom, Dr. J.C. Bunch, Dr. James Jawitz, Dr. Hitomi Greenslet, Dr. Abdoulaye Kane, Dr. Michael Martinez, Dr. Linjuan Rita Men, Dr. Connie Mulligan, Dr. Joni Williams Splett, Dr. Marta Wayne, Dr. Weizhou Zhang, Kevin Senior (GSC rep), and Fatima Akinola (GSC alternate)

MEMBERS ABSENT: Dr. Pilar Useche

GUESTS PRESENT: Dr. Cheryl Gater (Associate Provost and Director), Diana Hull (Office of the Registrar), Chris Newsom (Office of the Provost/Teaching and Technology), Dr. Aner Sela (Warrington College of Business), Dr. Tobin Shorey (Undergraduate Curriculum Committee), Ashley Tidwell (Office of Admissions), and Lissette Toletino (Office of Institutional Assessment)

STAFF PRESENT: Dr. Mimi Gammons, Dr. Tom Kelleher, Megan Lewis, Frankie Tai (Recording), Dr. Judy Traveis, Patty Van Wert, and Stacy Wallace

The meeting was called to order at 1:04 p.m.

Dr. Stedman welcomed everyone to this month's meeting of the Graduate Council and gave a brief summary of the pending proposals to be presented to the Council. (Prior to calling the meeting to order, Dr. Stedman informed everyone that today's Zoom meeting was being recorded.) Everyone in attendance briefly introduced themselves, and we welcomed the new Council members.

# I. ACTION ITEM:

1. Minutes from the August 15, 2024, Graduate Council Meeting. A motion to approve was made, seconded, and passed unanimously.

# II. <u>INFORMATION ITEM / ADMINISTRATIVE ACTIONS:</u>

- 2. Graduate Curriculum Committee June Minutes and September Agenda
- 3. Graduate Programs Distance or Self-Supporting Chris Newsome was present (via Zoom) to confirm there were no new items.
- 4. Graduate Student Success Center
  Dr. Judy Traveis was present to share information regarding the upcoming recruiting event.

Kevin Senior shared some of his efforts with Graduate Student Affairs and Student Government. He is working on a new program to pair up international graduate students for a more immersive experience.

# III. DISCUSSION ITEM:

5. Graduating semester enrollment.

Dr. Michael Martinez was present to discuss final term registration requirements for master's students who are continuing on to Ph.D.s, particularly the policy that prevents these students from using XXX 7979 course credits to meet final-term master's enrollment minimums. A follow-up meeting will be held with a working group to discuss details regarding course types and credits that fulfill final term requirements for the various degree programs.

The meeting adjourned at 1:47 p.m.

# Certificate | Close-Modify for request 20444

Info

**Request:** Modify the curriculum for the Graduate Certificate in Biomedical Neuroscience **Description of request:** The College of Medicine seeks to modify the curriculum for the

graduate certificate in Biomedical Neuroscience **Submitter:** Melissa Naidu michie@phhp.ufl.edu

Created: 10/4/2024 10:41:20 AM

Form version: 3

# Responses

**Current Certificate Name** 

**Biomedical Neuroscience** 

# **Effective Term**

Select the requested term and year that the certificate change(s) will first be implemented.

Selecting "Earliest" will allow the change to be effective in the earliest term after full approval.

Earliest Available

## **Effective Year**

Earliest Available

# **Requested Action**

Other (selecting this option will open additional form fields below)

**Change Certificate Name?** 

No

Change Certificate Name on Transcript?

No

**Change Credit Hours?** 

No

Change Certificate Description?

No

# **Change Certificate Prerequisites?**

No

# **Change Certificate Requirements?**

Yes

# **Current Requirements**

Currently six courses are listed as required for completion of the certificate for a total of 12 credits.

# Required courses:

GMS 6007: Fundamentals of Neuroscience (3 credits) GMS 6705: Functional Human Neuroanatomy (4 credits)

GMS 7795: Special Topics in Neuroscience (Homeostasis and the Brain) (3 credits)

### Track 1:

GMS 6021: Organization and Development of the Nervous System (2 credits)

### Track 2:

GMS 6750: Molecular Pathobiology of Neural Disease (1 credit)

GMS 7795: Special Topics in Neuroscience (Nobel Prizes in Neuroscience) (1 credit)

# **Proposed Requirements**

Keep two of the three currently required courses (7 credits) and allow students to select at least 5 additional credits to earn the certificate:

# Required courses (7 credits):

GMS 6007: Fundamentals of Neuroscience (3 credits) GMS 6705: Functional Human Neuroanatomy (4 credits)

# Elective courses (5 credits)

GMS 6021: Organization and Development of the Nervous System (2 credits)

GMS 6073: Disorders of the Developing Nervous System (1 credit)

GMS 6713: Neurobiology of Behavioral Disorders (3 credits)

GMS 6750: Molecular Pathobiology of Neural Disease (1 credit)

GMS 7795: Special Topics in Neuroscience (1-5 credits)

## Impact on Program

The addition of elective course choices will increase interest in the program by allowing students to align the certificate to their professional goals and interests.

# Rationale for Proposed Change(s)

The addition of elective course choices will permit students enrolled in the program to tailor the course emphasis to better align with their professional goals and interests.

## **Assessment Data Review**

Describe the Student Learning Outcome and/or program goal data that was reviewed to support the proposed changes.

The course that will be assessed for SLO 2 will change from GMS 7795 Psychology of Eating and Obesity, which will be an elective, to GMS 6007 Fundamentals of Neuroscience which will be required of all students in the certificate program.

The content of GMS 6007 Fundamentals of Neuroscience is well-aligned with SLO2 - to be able to compose papers and professionally comment on other's work based on topics presented within the course.

This course will provide students with the following:

- A foundational understanding of the basic anatomy, organization, and cells that make up the central nervous system.
- Knowledge of the anatomy and functions of the primary sensory and motor systems.
- Basic understanding of the function of higher order Neuroscience systems including language, cognition, and memory.
- Overview of nervous system development.

Students compose 2 short essay writing assignments with peer reviews, similar to what has been done in GMS 7795 Eating and Obesity. They will also compose a final project which combines written and multimedia content.

# **Academic Assessment Plan Changes**

Describe the modifications to the Academic Assessment Plan that result from the proposed change. These changes must be approved by the Academic Assessment Committee. A separate request must be completed for this, which can be found here: <a href="https://approval.ufl.edu/start-new-request/modify-approval.ufl.edu/start-new-

Given the parallel structures and method of assessment, the AAP will not need to be altered. GMS 6007 will be evaluated in the context of the current academic assessment plan.

# **Certificate Curriculum**

# **Required Courses**

COURSE	CREDITS	FALL	SPRING	SUMMER
GMS 6007 Fundamentals of Neuroscience	3	X		
GMS 6705 Functional Human Neuroanatomy (prereq GMS 6007)	4		X	

# **Elective Courses (Must complete at least 5 credits)**

COURSE	CREDITS	FALL	SPRING	SUMMER
GMS 6021 Organization and Development of the Nervous System (prereq GMS 6007)	2	X		
GMS 6073 Disorders of the Developing Nervous System (prereq GMS 6021)	1		X	
GMS 6713 Neurobiology of Behavioral Disorders (prereq GMS 6007, suggested 6705)	3	X	X	X
GMS 6750 Molecular Pathobiology of Neural Disease (prereq GMS 6705)	1			X
GMS 7795 Special Topics in Neuroscience (prereq GMS 6007)	1-5	X	X	X

# Concentration | New for request 20593

#### Info

**Request:** Create a new online graduate concentration in AI and Drug Discovery for the M.S. degree with a major in Medical Sciences.

**Description of request:** The College of Medicine seeks to create a concentration in AI and Drug Discovery for the Master of Science (M.S.) with a major in Medical Sciences. This concentration will be offered fully online and overseen by the Department of Pharmacology and Therapeutics.

Submitter: Stephan Jahn scjahn@ufl.edu Created: 10/11/2024 12:01:59 PM

Form version: 2

# Responses

# **Proposed Action**

Choose to add a new concentration if the concentration has never been offered before. In this case documentation of consent from all participating departments must be submitted. OR.

Choose to participate in an existing concentration if the concentration has already been approved. In this case documentation of consent from all departments offering the major must be submitted.

Create a Concentration

Note that documents can be uploaded on the next page or after the request has been initiated.

# Degree Level

*Indicate the degree level in which to add the concentration.* 

M - Master's Degree

# Thesis or Non-Thesis

is this concentration for a thesis or non-thesis degree?

Non-Thesis

#### **Concentration Name**

Enter the name of the concentration. Example: "Mathematical Modeling" or "Ecological Restoration".

Al and Drug Discovery

# Credits

Enter the number of credits for the concentration. Note: as a guideline only, graduate concentrations typically range from 9-21 credits (9-12 for master's degrees, or 9-21 for doctoral degrees).

### **Effective Term**

Enter the term (semester and year) that the concentration would start.

Earliest Available

### **Effective Year**

Farliest Available

### **Students**

Enter the expected number of new students enrolled in this concentration in the first three years.

100

# Percentage of Credits Available Fully Online

Indicate the percentage of course credits that will be available through fully online courses.

100%

# Percentage of Credits Available Off-Campus

Indicate the percentage of course credits that will be available away from the main Gainesville campus (including courses with onsite & off main campus meetings).

50% or more

Is this an additional (secondary) concentration?

No

# All Department/Degree/Majors Adding Concentration

List the department / degree / major combinations at the degree level chosen that will offer this concentration.

Pharmacology and Therapeutics: MS in Medical Sciences

For example, to request a new "Wetland Sciences" concentration at the master's level, list all master's level degree / major combinations from all participating departments:

- Forest Resources and Conservation: M.S. in Fisheries and Aquatic Sciences
- Forest Resources and Conservation: M.S. in Forest Resources and Conservation
- Forest Resources and Conservation: M.F.A.S. in Fisheries and Aquatic Sciences
- Forest Resources and Conservation: M.F.R.C. in Forest Resources and Conservation
- Geography: M.A in Geography
- Geography: M.S. in Geography
- Geological Sciences: M.S. in Geology
- Geological Sciences: M.S.T. in Geology

# Rationale for Proposed Concentration

Describe the rationale for offering this new concentration and having it on the transcript, how it will enhance the quality of the existing major, how it relates to graduate programs at peer institutions. Also describe what distinguishes this new concentration within the existing major(s) in the degree program, the degree of its overlap with existing majors and concentrations (both in the degree program and in other degree programs at the university), and a justification for any such overlap.

UF has put a great deal of emphasis on artificial intelligence (AI) in order to make itself a leader in the field. One area where AI shows great promise is in the area of drug development. AI is capable of dramatically shortening the time it takes to develop new drugs while also leading to better outcomes and fewer side effects.

There are currently no direct competitors offering this degree in the country, allowing UF to lead once again. While the College of Medicine is in the process of starting a new degree in artificial intelligence in biomedical and health science, it is a generalized degree and is offered only in person. Our new concentration will be focused on drug discovery and offered fully online.

This degree will be desirable to several different student populations. Pre-professional students seeking to improve their applications to medical school or similar programs will have an opportunity to earn a degree that will set them apart from other applicants. Established scientists in the field of drug discovery will be able to learn techniques in order to keep pace with their rapidly evolving industry, and aspiring scientists will be able to learn skills that will make them extremely attractive job applicants in either academia or industry.

## Impacts on Other Programs

Describe any potential impact on other programs or departments, including increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the existing program.

No other programs will be impacted regarding additional prerequisite courses or the need to offer additional electives. All new and existing courses will be administratively governed and offered through the Department of Pharmacology and Therapeutics, and the program is designed to be self-contained.

While the College of Pharmacy has recently submitted a proposal for a course with a similar name to this program, their course is an overview course (covering material that we will cover in multiple courses in more depth) and it is intended for in-person PhD students rather than online MS students. There is not a conflict between these.

# 1 year curriculum

Semester	Course #	Course	Credit hour	Total credit hours	
1	GMS6551	Fundamentals of Medical Pharmacology	1		
	GMS6520	Medical Pharmacology & Therapeutics I: The Nervous System	2		
	GMS6530	Medical Pharmacology & Therapeutics II: Cardiovascular, Renal and Respiratory Systems	2	10	
	GMS6531	Medical Pharmacology and Therapeutics III: Endocrine, Musculoskeletal, GI and Integumentary Systems	2		
	GMS6XXX	Fundamentals of Biomedical AI (Approval 20571)	3		
2	GMS6540	Medical Pharmacology & Therapeutics IV: Cancer, Antimicrobial and Antiparasitic Agents	2		
	GMS6XXX	Al Experimental Design in Pharmacology (Approval 20575)	3	11	
	GMS6XXX	AI-Powered Small Molecule Discovery (Approval 20573)	3		
	GMS6XXX	Al-Powered Discovery of Biological Therapeutics (Approval 20572)	3		
3					
	GMS6XXX	Al-Powered Prediction of Drug Outcomes (Approval 20574)	3		
	GMS6XXX	Independent Study in AI and Drug Discovery (Approval 20576)	2	9	
	GMS6552	Cell Signaling & Therapeutics	2		
	GMS6504	Advanced Medical Pharmacology	2		
	Total credit hours			30	

All courses are letter graded.

# Graduate Curriculum Committee Minutes

September 12, 2024 Meeting Materials

Voting Conducted via Zoom

I. Presentation and review of the Minutes from the June 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 Advanced Applications in DNA

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/19590

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

2. PHA 6XXX Applied Statistics for Laboratory Data Analysis

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

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

HHP – Sport Management

3. SPM 5XXX Diversity, Equity, and Inclusion in Sport Organizations

Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/18878">https://secure.aa.ufl.edu/Approval/reports/18878</a>

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

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

MED –Health Outcomes and Biomedical Informatics

1. GMS 6848 Ensuring Rigor and Reproducibility in Clinical and Translational Research Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20224">https://secure.aa.ufl.edu/Approval/reports/20224</a>

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

COP – Pharmacotherapy and Translational Research

2. PHA 6746 Patient Education and Communication in the Era of Precision Medicine Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20102

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

DCP – Architecture

1. ARC 5XXX Integrated Building Tech 1

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20297

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

2. ARC 5XXX Integrated Building Tech 2

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20298

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

3. ARC 5XXX Integrated Building Tech 3

Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20299">https://secure.aa.ufl.edu/Approval/reports/20299</a>

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

4. ARC 5XXX Integrated Building Tech 4

Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20300">https://secure.aa.ufl.edu/Approval/reports/20300</a>

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

5. ARC 5XXXL Graduate Core Studio 3

Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20030">https://secure.aa.ufl.edu/Approval/reports/20030</a>

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

6. ARC 5XXXL Graduate Core Studio 4

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20031

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

CALS – Entomology and Nematology

1. ENY 6XXX Global Change and Insect Declines

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/19841

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

MED – Neuroscience

2. GMS 6XXX Aging and the Brain

Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/19869">https://secure.aa.ufl.edu/Approval/reports/19869</a>

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

3. GMS 6XXX Neuroimaging

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/19862

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

4. GMS 6XXX Neuroscience Professional Survival Skills

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/19861

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

# COP – Medicinal Chemistry

5. PHA 6XXX Drug Development Strategies
Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20131

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

### COP – Pharmaceutics

6. PHA 6XXX Personal Genomics and Your Health
Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20226">https://secure.aa.ufl.edu/Approval/reports/20226</a>

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

#### PHHP – Environmental and Global Health

7. PHC 6XXX Artificial Intelligence in Environmental and Global Health Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20140">https://secure.aa.ufl.edu/Approval/reports/20140</a>

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

# CLAS – Sociology

8. SYA 7XXX Sociological Application of Network Science
Link to proposal: https://secure.aa.ufl.edu/Approval/reports/18946

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

# vi. Information Items:

- 1. ABE 6933 20008 Change maximum repeatable credit from 6 to 15
- 2. BME 6938 20116 Change maximum repeatable credit from 6 to 18
- 3. CAP 5771 20079 Share course ownership
- 4. CCJ 5934 19761 Change maximum repeatable credit from 12 to 36
- 5. CGN 6905 20074 Change maximum repeatable credit from 10 to 18
- 6. EAS 6939 20088 Change course description and maximum repeatable credit from 12 to 15
- 7. ECH 6937 20109 Change maximum repeatable credit from 9 to 12

- 8. EEC 6933 20097 Change maximum repeatable credit from 12 to 18
- 9. EEL 5934 20108 Change maximum repeatable credit from 8 to 18
- 10. EEX 6936 20092 Change maximum repeatable credit from 12 to 18
- 11. EGM 6934 20089 Change maximum repeatable credit from 12 to 15
- 12. EML 6934 20091 Change maximum repeatable credit from 12 to 15
- 13. ENV 6932 20072 Change maximum repeatable credit from 8 to 18
- 14. EOC 6934 20075 Change maximum repeatable credit from 9 to 18
- 15. GMS 6007 20107 Change prerequisites
- 16. GMS 6750 20084 Change prerequisites
- 17. GMS 6852 20221 Change to course title
- 18. <u>GMS 6853</u> 20222 Change to course title
- 19. PHA 6935 19849 Change maximum repeatable credit from 12 to 18
- 20. PHC 6905 20220 Share course ownership
- 21. SPS 6937 20094 Change maximum repeatable credit from 12 to 18
- 22. SPS 7979 20095 Change maximum repeatable credit from 12 to 99
- 23. SPS 7980 20096 Change maximum repeatable credit from 15 to 99
- 24. VME 6937L 19872 Change maximum repeatable credit from 2 to 6

# Graduate Curriculum Committee Agenda

October 10, 2024 Meeting Materials

Voting Conducted via Zoom

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

There are no modifications to present at this time.

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.

There are no 5XXX courses to present at this time.

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.

MED – Pharmacology and Therapeutics

1. GMS 6XXX AI Experimental Design in Pharmacology
Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20575">https://secure.aa.ufl.edu/Approval/reports/20575</a>

We will explore the transformative intersection of Artificial Intelligence (AI) and experimental design. We will delve into how AI can revolutionize scientific research by optimizing experimental workflows, selecting the most informative experiments, and accelerating scientific discovery. The course will cover machine learning techniques for data analysis, active learning for experiment selection, and reinforcement learning for optimizing complex experimental procedures.

2. GMS 6XXX AI-Powered Discovery of Biological Therapeutics
Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20572

We will explore the transformative potential of Artificial Intelligence (AI) in discovering novel biological therapeutics. We will delve into machine learning and deep learning techniques for analyzing biological data, predicting protein function, and designing targeted biotherapeutics. Additionally, the course will address the integration of AI with high-throughput screening methods and explore the regulatory landscape for AI-derived therapies.

3. GMS 6XXX AI-Powered Prediction of Drug Outcomes
Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20574">https://secure.aa.ufl.edu/Approval/reports/20574</a>

We will explore the application of Artificial Intelligence (AI) in predicting patient outcomes for improved clinical decision-making and personalized medicine. We will delve into machine learning and deep learning techniques for analyzing electronic health records (EHRs) and other clinical data to predict disease progression, risk of complications, and response to treatment. Additionally, the course will address ethical considerations, explainability of models, and the challenges of integrating

4. GMS 6XXX AI-Powered Small Molecule Discovery
Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20573

We will explore the cutting-edge application of Artificial Intelligence (AI) in discovering novel small molecules for drug development. We will delve into the fundamental principles of machine learning and deep learning techniques used for virtual screening, lead optimization, and de novo molecule design. The course will also address the integration of biological data with AI models and explore the practical challenges and limitations of this approach.

5. GMS 6XXX Fundamentals of Biomedical AI
Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20571

We will provide a comprehensive introduction to the field of Artificial Intelligence (AI). It explores the fundamental concepts, historical development, and various applications of AI. We will delve into core machine learning techniques and explore subfields like natural language processing and computer vision. Ethical considerations, societal impact, and future directions of AI research will also be addressed.

6. GMS 6XXX Independent Study in AI and Drug Discovery
Link to proposal: <a href="https://secure.aa.ufl.edu/Approval/reports/20576">https://secure.aa.ufl.edu/Approval/reports/20576</a>

The independent study explores the application of Artificial Intelligence (AI) in drug discovery. You will delve into machine learning and deep learning techniques used for

various stages of the drug discovery pipeline, from virtual screening to lead optimization. Additionally, you will explore the integration of biological data with AI models and critically analyze the current limitations and future directions of this field.

# COP – Medicinal Chemistry

7. PHA 6XXX AI for Drug Discovery
Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20549

This course is designed to provide a comprehensive understanding of the integration of artificial intelligence (AI) in drug discovery. It covers cheminformatics, machine learning, deep learning, and their applications for small molecule and biologics drug design and discovery. Students will gain both a general understanding and hands-on experience of AI applications in drug discovery.

### PHHP – Public Health

8. PHC 6XXX Public Health Methods II: Applying Qualitative & Mixed Methods for Assessment

Link to proposal: https://secure.aa.ufl.edu/Approval/reports/20422

This is the second of two courses that focus on public health/global health research and practice using both quantitative and qualitative methods. This course will introduce qualitative and mixed methods and their relevance to rigorous public health research and practice, with an emphasis on using qualitative methods to conduct needs and capacity assessments within communities and organizations.

### vi.Information Items:

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1. <u>EDF 6400</u> – 20227 – Change prerequisites
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- 2. EDF 6403 20228 Change prerequisites
- 3. <u>EDF 6468</u> 20184 Change prerequisites
- 4. EDF 6471 20230 Change prerequisites
- 5. EDF 6492 20185 Change prerequisites
- 6. EDF 7405 20229 Change prerequisites
- 7. EDG 6931 20316 Change maximum repeatable credit from 12 to 18
- 8. MHS 6020 20163 Change prerequisites
- 9. MHS 6495 20176 Change prerequisites
- 10. MHS 7730 20359 Change prerequisites
- 11. MHS 7804 20167 Change co-requisites
- 12. MHS 7805 20168 Change co-requisites

- 13. MHS 7806 20170 Change co-requisites
- 14. MHS 7807 20171 Change co-requisites
- 15. PHA 6279 20476 Change maximum repeatable credit from 3 to 6
- 16. <u>SDS 6436</u> 20172 Change co-requisites
- 17. SDS 7800 20175 Change co-requisites and prerequisites
- 18. <u>SDS 7820</u> 20173 Change co-requisites
- 19. <u>SDS 7830</u> 20174 Change co-requisites
- 20. URP 6941 19964 Change to course title and description

Proposed Merger of the Department of Anatomy and Cell Biology with the Department of Physiology and Aging

Description of the proposed change to merge the Department of Anatomy and Cell Biology with the Department of Physiology and Aging within the College of Medicine.

*Background and rationale:* The proposal to merge the departments of Physiology and Aging and Anatomy and Cell Biology is based on mutual benefit to the research and academic missions of all groups of faculty.

The Department of Physiology and Aging has a strong basic and applied/clinical research program with an active teaching portfolio including courses that support education for medical school, physician assistant studies, dental school, graduate students and undergraduate students. The Department of Anatomy and Cell Biology has a robust teaching portfolio that provides required courses for medical students, PA students, dental students and serves BMS graduate students and master's degree students. In addition, the Anatomy and Cell Biology faculty run a unique graduate program, Anatomical Sciences Education, that trains the next generation of anatomy educators to support professional programs within the health sciences. However, the faculty in Anatomy and Cell Biology have a very small research portfolio that has declined ~75% over the last 5 years, which largely reflects a trend in the discipline's fundability nationwide. Thus, the department portfolio across missions does not exhibit the balance that is expected within a foundational science department in the College of Medicine. The merger of these two departments will bring a robust and complementary education program from Anatomy and Cell Biology into a department that has a strong education program but will benefit from the growth. For research, the merger will allow the active research faculty within the Department of Anatomy and Cell Biology to be part of the more dynamic, cutting edge and active research base that is currently in place within the Physiology and Aging department. Aspects of the faculty members' foundational science research programs are complementary (as noted below) so this will serve to facilitate increased collaborative research opportunities among all the faculty and among trainees from both departments. There is expectation for research growth in areas of biomedical research that range from the bench to the bedside with a focus on the cell, tissue and systemic mechanisms that contribute to health and disease across the lifespan.

Research missions: Currently, the faculty in the Department of Physiology and Aging perform extramurally funded research in basic/bench and applied/human aspects of physiology across the lifespan. In this last academic year, the Physiology and Aging faculty research programs ranked 26<sup>th</sup> in the Blue Ridge Institute rankings, up from position 30 the year before. There are 15 faculty that have active research funding with the total awards for FY24 being \$7,395,886. Physiology is one of the older specialties within biomedical research and, in general, research in this area is about understanding the cell, tissue and systemic mechanisms that contribute to the onset and progression of chronic diseases. A fundamental concept within the Physiology and Aging research portfolio are mechanisms that support cell and system homeostasis, as loss of this capability contributes to aging and diseases. Research programs within the department of Anatomy and Cell Biology are largely focused on therapeutics for cancer and concepts of development. The research funding for FY24 totals \$791,275, representing a significant decline from ~\$3-4 million in 2019-2021. The decline includes fewer funded faculty and a decrease in the size of awards/faculty.

Merging the two departments would create a new department that continues to support active research programs currently ongoing while creating an environment and opportunities for more of the Anatomy and Cell Biology faculty to achieve greater research success. Anatomy and physiology both have a long history in biomedical research as the research contributing to cell and system structure (i.e., anatomy) and research targeting cell and structure function (i.e., physiology). Currently research faculty across both departments use research designs that are based in both cell biology and physiology concepts so there is a natural synergy in the merger of these disciplines. Additionally, the faculty all incorporate research that addresses health issues across the lifespan from pregnancy to age linked diseases such as cancer and hypertension.

Academic missions: Academically, the merge of the two departments would benefit the current members of both departments. Currently the Department of Physiology and Aging maintains the Physiology and Aging concentration and the Department of Anatomy and Cell Biology maintains the Molecular and Cellular Biology concentration within the BMS PhD program. Both the concentrations are active and will be maintained active within the newly formed department. The co-location of both concentrations in one department will lead to a larger pool of research active faculty to support student recruitment and committee work.

Budgetary implications. At present, the two departments operate as separate fiscal units, with two budgets, and with overlapping staff. Dr. Karyn Esser was appointed Interim Chair of the Department of Anatomy and Cell Biology on July 1, 2024. She is currently Chair of the Department of Physiology and Aging. The position of one department administrator from the Department of Anatomy and Cell Biology was eliminated and two vacant staff positions in the Department of Physiology and Aging will be filled by staff members from the Department of Anatomy and Cell Biology. The proposed merger does not significantly alter staff numbers but does result in an increase in the ratio of faculty to staff resulting in a more efficient department.

Impact of merger on faculty and students. The impact of the proposed merger on the faculty is modest as this merger will result in the 24 current faculty (12 tenure/tenure track) from Physiology and Aging joining with 16 current faculty (10 tenure/tenure track) from Anatomy and Cell Biology.

As noted above, each of these departments maintains concentrations within the Biomedical Sciences program in the College of Medicine. These concentrations and the students within these concentrations will continue to be supported within the structure of the merged department. The Anatomy and Cell Biology department also runs a research-based master's degree program, which will continue within the merged department.

Department vote: Dean Jennifer Hunt first proposed the merger to the faculty of the Department of Anatomy and Cell Biology at a meeting on May 24, 2024. The faculty had the opportunity to ask questions and participate in discussion about the proposal. Dr. Karyn Esser, chair of the Department of Physiology and Aging, was appointed acting chair of the Department of Anatomy and Cell Biology on July 1, 2024. Dr. Esser presented the rationale for the proposed merger at a joint faculty meeting of both departments on July 22, 2024. Faculty had the opportunity for discussion and were provided with a link to an electronic survey to record their vote. The survey was open for one week to allow ample time for faculty to ask additional questions and vote. The results of the anonymous faculty vote were as follows:

In favor: 26 Against: 5 Abstain: 3 Absent: 0

Presentation to the Executive Committee: Dr. Jennifer Hunt presented the proposed merger to the College of Medicine Executive Committee on August 15, 2024. The Executive Committee includes senior associate deans, associate deans, directors, and department chairs. The committee had the opportunity to discuss the proposal and to hear from Dr. Karyn Esser. The committee the made a motion to approve the proposal, which was seconded and then moved unanimously by the committee.