I. **ACTION ITEMS:**

1. Minutes from the April 20, 2023 Graduate Council Meeting (Enclosure 1).

**CERTIFICATES:**

2. The Herbert Wertheim College of Engineering seeks to create a graduate certificate in Financial Math and Optimization (#17891). Dr. David Kaber will be present for discussion (Enclosure 2).

3. The Herbert Wertheim College of Engineering seeks to create a graduate certificate in Financial Risk Analysis and Management (#17914). Dr. David Kaber will be present for discussion (Enclosure 3).

4. The Herbert Wertheim College of Engineering seeks to create a graduate certificate in Financial Technology (#17881). Dr. David Kaber will be present for discussion (Enclosure 4).

5. The College of Liberal Arts and Sciences seeks to create a graduate certificate in Public Archaeology (#17733). Dr. Susan Gillespie will be present for discussion (Enclosure 5).

6. The College of Agricultural and Life Sciences seeks to modify the curriculum for the graduate certificate in Tropical Agriculture (#18062). Dr. Kara Casy will be present for discussion (Enclosure 6).

**CONCENTRATIONS:**

7. The College of Medicine seeks to modify the curriculum for the graduate concentration in Biomedical Informatics for the Master of Science (M.S.) with a major in Medical Sciences (#18412). Dr. Tom Rowe will be present for discussion (Enclosure 7).

8. The College of Medicine seeks to modify the curriculum for the graduate concentration in Biomedical Informatics for the Doctor of Philosophy (Ph.D.) with a major in Medical Sciences (#18424). Dr. Tom Rowe will be present for discussion (Enclosure 8).

**MAJOR:**

9. The Herbert Wertheim College of Engineering seeks to modify the curriculum for the Master of Science (M.S.) with a major in Computer Science (#18464). Dr. Joseph Wilson will be present for discussion (Enclosure 9).

**COMBINATION DEGREES:**

10. The Levin College of Law seeks to reaffirm the combination graduate/professional degree program between the Master of Accounting (M.Acc.) with a major in Accounting and the Juris Doctor (J.D.) with a major in Law (#18527). Ms. Ruth McIlhenny will be present for discussion (Enclosure 10).
11. The Levin College of Law seeks to reaffirm the combination graduate/professional degree program between the Master of Business Administration (M.B.A.) with a major in Business Administration and the Juris Doctor (J.D.) with a major in Law (#18528). Ms. Ruth McIlhenny will be present for discussion (Enclosure 11).

12. The Levin College of Law seeks to reaffirm the combination graduate/professional degree program between the Master of Science (M.S.) with a major in Finance and the Juris Doctor (J.D.) with a major in Law (#18529). Ms. Ruth McIlhenny will be present for discussion (Enclosure 12).

13. The Levin College of Law seeks to reaffirm the combination graduate/professional degree program between the Master of Science (M.S.) with a major in Real Estate and the Juris Doctor (J.D.) with a major in Law (#18530). Ms. Ruth McIlhenny will be present for discussion (Enclosure 13).

II. INFORMATION ITEM / ADMINISTRATIVE ACTIONS:

14. Graduate Curriculum Committee – April Minutes and May Agenda. (Enclosure 14).

15. Update on the Graduate Council election 2023-2026

16. Graduate Programs – Distance or Self-Funded – No new items

III. DISCUSSION ITEMS:

17. In-residence policy for Ph.D.

18. Stacked credentials
The meeting was called to order at 1:01 p.m.

Dr. Kelleher 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.

I. ACTION ITEMS:

1. Minutes from the March 23, 2023 Graduate Council Meeting. A motion to approve was made, seconded, and passed unanimously.

CERTIFICATES:

1. The College of Engineering seeks to create a graduate certificate in Artificial Intelligence (#17877). Dr. Christina Gardner-McCune was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of fall 2023.

2. The College of Engineering seeks to create a graduate certificate in Civil Infrastructure Assessment (#17940). Dr. Jennifer Bridge will be present for discussion was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.
3. The College of Engineering seeks to create a graduate certificate in Coastal Engineering and Management (#17930). Dr. Mike Annable was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of fall 2023.

4. The College of Engineering seeks to create a graduate certificate in Coastal Resilience Engineering (#17943). Dr. Mike Annable was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.

5. The College of Engineering seeks to create a graduate certificate in Fundamental Computer Science (#17786). Dr. Christina Gardner-McCune was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of fall 2023.

6. The College of Medicine seeks to modify the curriculum for the graduate certificate in Medical Microbiology (#18347). Dr. Paul Gulig was present for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of summer 2023.

**CONCENTRATION:**

7. The College of Medicine seeks to rename the graduate concentration in Physiology and Functional Genomics to Physiology and Aging (#18391). Dr. Tom Rowe, Dr. Shinichi Someya and Ms. Robyn Edwards were present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of summer 2023.

**MAJORS:**

8. The College of Agricultural and Life Sciences seeks to modify the curriculum for the Master of Science (M.S.) with a major in Interdisciplinary Ecology (non-thesis) (#18183). Dr. Ramesh Reddy was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.

9. The College of Agricultural and Life Sciences seeks to modify the curriculum for the Master of Science (M.S.) with a major in Interdisciplinary Ecology (thesis) (#18215). Dr. Ramesh Reddy was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.

10. The College of Agricultural and Life Sciences seeks to modify the curriculum for the Doctor of Philosophy (Ph.D.) with a major in Interdisciplinary Ecology (#18207). Dr. Ramesh Reddy was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.

11. The College of Agricultural and Life Science seeks to modify the title of the major for the Master of Science (M.S.) degree from a major in “Soil and Water Sciences” to a major in “Soil, Water, and Ecosystem Sciences” (#18074). Dr. Patrick Chris Wilson was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.

12. The College of Agricultural and Life Science seeks to modify the title of the major for the Doctor of Philosophy (Ph.D.) degree from a major in “Soil and Water Sciences” to a major in “Soil, Water, and Ecosystem Sciences” (#18075). Dr. Patrick Chris Wilson was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.
DEGREE:

13. The College of Medicine seeks to create a graduate degree for the Master of Science (M.S.) with a major in Genetics and Genomics (#18061). Dr. Connie Mulligan was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of fall 2023.

COMBINATION DEGREES:

14. The College of Liberal Arts and Sciences seeks to create a combination degree program between the Bachelor of Arts (B.A.) or the Bachelor of Science (B.S.) degree with a major in Anthropology and the Master of Arts (M.A.) degree with a major in Anthropology (#17438). Dr. Kenneth Sassaman was present for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of fall 2023.

15. The College of Health and Human Performance and the Levin College of Law seeks to create a combination degree program between the Master of Science (M.S.) with a major in Sport Management and the Juris Doctor (J.D.) degree (#17244). Dr. Cyntrice Thomas was present (via Zoom) for discussion. A motion to approve was made, seconded, and passed unanimously, with a proposed effective date of earliest available.

II. INFORMATION ITEM / ADMINISTRATIVE ACTIONS:

17. Graduate Curriculum Committee – March Minutes and April Agenda.

18. Update on the Graduate Council election 2023-2026
   The two members selected by the Graduate Council are Dr. Connie Mulligan and Dr. Michael Martinez. The provost will determine the other two selections.

19. Graduate Programs – Distance or Self-Funded – No new items

III. DISCUSSION ITEMS:

20. In-residence policy for Ph.D.
   The current statement listed in the Graduate Catalog for “Campus Residence Requirement” was reviewed. Council members were asked to consider revisions to the language for consistency with practice. Amended language may be proposed as action item at May meeting.

21. Chat GPT
   Discussed the Student Honor Code policy regarding “cheating”

The meeting adjourned at 2:16 p.m.
Certificate | New for request 17891

Info
Request: Financial Math and Optimization graduate certificate
Description of request: The Industrial and Systems Engineering Department seeks to create a graduate certificate in Financial Math and Optimization with an on-campus, traditional delivery modality.
Submitter: Serdar Kirli kirli@ise.ufl.edu
Created: 5/10/2023 6:19:05 PM
Form version: 9

Responses
Certificate Name
Enter the name of the certificate. Example: Urban Pest Management.

Financial Math and Optimization

Transcript Title
Enter the transcript title of the certificate. This is limited to 50 characters, including spaces.

Financial Math and Optimization

Credits
Enter the total number of credit hours needed to complete the certificate program.

9

Level
Enter the program level of the certificate.

Graduate

CIP Code
Enter the six digit Classification of Instructional Programs (CIP) code for the degree program associated with the proposed certificate. The code has the numerical format XX.XXXX. Contact the Office of Institutional Planning and Research (OIPR) to verify the CIP code for the existing degree program.

14.2701

Degree Program
Enter the degree program associated with the CIP code entered above (e.g. Accounting).

Industrial and Systems Engineering

Effective Term
Enter the term (semester and year) that the certificate would start. Please keep in mind that this may be adjusted depending on University deadlines for approval process.

Fall
Effective Year

2023

Certificate Description
Enter a description of the certificate. This is limited to 50 words or fewer.

This certificate introduces students to advanced mathematical tools and optimization methods to support the practice of financial engineering. Required courses cover pricing and hedging derivative securities, optimization methods for financial decision-making and their applications to portfolio management, stochastic calculus and its applications in option pricing.

Requirements for Admission
List any requirements for admission to this new certificate program such as grade point average, background in the discipline, current enrollment status, etc. Please indicate if the certificate only accepts students of a particular status: for example, current UF graduate students, graduate students in a specific college, non-degree seeking students, or any student status.

Applicants to this graduate certificate must be currently enrolled UF graduate students or nondegree seeking students who have earned a bachelor’s degree from a regionally accredited US institution. Up to 15 credits earned in the certificates may be eligible for subsequent transfer of credit to a UF master’s degree program. (subject to the approval of the supervisory committee and Graduate Council policies governing transfer credit). All non-degree seeking students will be advised of this transfer credit limit.

Requirements for Completion
List all of requirements for completion of the certificate program, such as courses, internships, projects, etc. For each course, indicate prefix, number, title, # credits, and established grading scheme (letter grade or S/U). The title should be identical to the official title of the course as listed in the Graduate catalog or <a href="http://gradcatalog.ufl.edu/">Graduate</a> catalog.

Required courses (9 credits):
(1) FIN6537 - Derivative Securities (2 credits, offered by the Department of Finance) - letter grade
(2) ESI5XXX - Stochastic Calculus in Financial Engineering (4 credits) - letter grade (approval #17851)
(3) ESI5XXX - Optimization for Financial Engineering (3 credits) - letter grade (approval #17883)

Students must complete all courses with a B or better to earn the certificate.

Rationale and Place in Curriculum
Describe the rationale for offering this new certificate and having it on the transcript, its place in the curriculum, how it will enhance the quality of the existing program or department. Also describe its overlap with any existing certificates and programs, and a justification for any such overlap. Note that documentation of consultation will be expected for any certificate with overlapping content.

The Department of Industrial and Systems Engineering (ISE), in collaboration with the Department of Finance, is creating three graduate certificates in Financial Engineering: Financial Technology, Financial Math & Optimization and Financial Risk Analysis & Management. The
target audience is the professionals working in the finance industry who can participate in these certificate programs to improve their knowledge and understanding of the field and to build a technical foundation for various applications.

These certificates can be earned individually or together. In addition to finance professionals, the certificate targets full-time graduate students with the necessary background. The certificate in Financial Math & Optimization proposed here has no overlap with any existing certificate.

Credits earned in the certificate may be eligible for subsequent transfer of credit to a UF master’s degree program. (subject to the approval of the supervisory committee and Graduate Council policies governing transfer credit).

**Student Learning Outcomes**

List each student learning outcome with its associated courses, assessment type (e.g. course-related exam/assignment/grade, final paper/project/presentation, standardized exam, capstone) and method (e.g. rubric, faculty committee, single faculty member).

Student Learning Outcome: Implement and use the appropriate technique to solve financial optimization models and manage risk.
Evaluation Method: Project work and/or exam questions in ESI XXXX - Optimization for Financial Engineering evaluated by single faculty (course instructor)
Certificate|New for request 17914

Info
Request: Financial Risk Analysis and Management graduate certificate
Description of request: The Industrial and Systems Engineering Department seeks to create a graduate certificate in Financial Risk Analysis and Management with an on-campus, traditional delivery modality.
Submitter: Serdar Kirli kirli@ise.ufl.edu
Created: 5/10/2023 6:20:13 PM
Form version: 4

Responses
Certificate Name
Enter the name of the certificate. Example: Urban Pest Management.

Financial Risk Analysis and Management

Transcript Title
Enter the transcript title of the certificate. This is limited to 50 characters, including spaces.

Financial Risk Analysis and Management

Credits
Enter the total number of credit hours needed to complete the certificate program.

9

Level
Enter the program level of the certificate.

Graduate

CIP Code
Enter the six digit Classification of Instructional Programs (CIP) code for the degree program associated with the proposed certificate. The code has the numerical format XX.XXXX. Contact the Office of Institutional Planning and Research (OIPR) to verify the CIP code for the existing degree program.

14.2701

Degree Program
Enter the degree program associated with the CIP code entered above (e.g. Accounting).

Industrial and Systems Engineering

Effective Term
Enter the term (semester and year) that the certificate would start. Please keep in mind that this may be adjusted depending on University deadlines for approval process.

Earliest Available
Effective Year

Earliest Available

Certificate Description
Enter a description of the certificate. This is limited to 50 words or fewer.

This certificate introduces students to the modeling, measuring, and managing of different risks faced by financial institutions, using statistical and stochastic methods. Advanced risk management and machine learning techniques will be used to integrate different risk disciplines in asset and liability management.

Requirements for Admission
List any requirements for admission to this new certificate program such as grade point average, background in the discipline, current enrollment status, etc. Please indicate if the certificate only accepts students of a particular status: for example, current UF graduate students, graduate students in a specific college, non-degree seeking students, or any student status.

Applicants to this graduate certificate must be currently enrolled UF graduate students or nondegree-seeking students who have earned a bachelor’s degree from a regionally accredited US institution. Up to 15 credits earned in the certificates may be eligible for subsequent transfer of credit to a UF master’s degree program. (subject to the approval of the supervisory committee and Graduate Council policies governing transfer credit). All non-degree seeking students will be advised of this transfer credit limit.

Requirements for Completion
List all of requirements for completion of the certificate program, such as courses, internships, projects, etc. For each course, indicate prefix, number, title, # credits, and established grading scheme (letter grade or S/U). The title should be identical to the official title of the course as listed in the Graduate catalog or <a href="http://gradcatalog.ufl.edu/">Graduate</a> catalog.

Required courses (9 credits):
(1) FIN6489 - Financial Risk management (2 credits, offered by the Department of Finance) - letter grade
(2) ESI5XXX - Machine Learning for Financial Risk Management (4 credits) - letter grade (approval #17884)
(3) ESI6352 - Financial Optimization Case Studies (3 credits) - letter grade Students must complete all courses with a B or better to earn the certificate.

Rationale and Place in Curriculum
Describe the rationale for offering this new certificate and having it on the transcript, its place in the curriculum, how it will enhance the quality of the existing program or department. Also describe its overlap with any existing certificates and programs, and a justification for any such overlap. Note that documentation of consultation will be expected for any certificate with overlapping content.

The Department of Industrial and Systems Engineering (ISE), in collaboration with the Department of Finance, is creating three graduate certificates in Financial Engineering to be offered: Financial Technology, Financial Math & Optimization, and Financial Risk Analysis & Management. The target audience is the professionals working in the finance industry who can
participate in these certificate programs to improve their knowledge and understanding of the field and build a technical foundation for various applications.

These certificates can be earned individually or together. In addition to finance professionals, the certificates target full-time graduate students with the necessary background. The certificate in Financial Math & Optimization proposed here has no overlap with any existing certificate.

Credits earned in the certificate may be eligible for subsequent transfer of credit to a UF master’s degree program. (subject to the approval of the supervisory committee and Graduate Council policies governing transfer credit).

**Student Learning Outcomes**

List each student learning outcome with its associated courses, assessment type (e.g. course-related exam/assignment/grade, final paper/project/presentation, standardized exam, capstone) and method (e.g. rubric, faculty committee, single faculty member).

Student Learning Outcome: Formulate financial risk management problems and provide machine learning algorithms to solve them.
Evaluation Method: Project work and/or exam questions in ESI5XXX - Machine Learning for Financial Risk Management evaluated by single faculty (course instructor).
Certificate | New for request 17881

Info
Request: Financial Technology graduate certificate
Description of request: The Industrial and Systems Engineering Department seeks to create a graduate certificate in Financial Technology with an on-campus, traditional delivery modality.
Submitter: Serdar Kirli kirli@ise.ufl.edu
Created: 5/10/2023 6:17:46 PM
Form version: 7

Responses
Certificate Name
Enter the name of the certificate. Example: Urban Pest Management.

Financial Technology

Transcript Title
Enter the transcript title of the certificate. This is limited to 50 characters, including spaces.

Financial Technology

Credits
Enter the total number of credit hours needed to complete the certificate program.

9

Level
Enter the program level of the certificate.

Graduate

CIP Code
Enter the six digit Classification of Instructional Programs (CIP) code for the degree program associated with the proposed certificate. The code has the numerical format XX.XXXX. Contact the Office of Institutional Planning and Research (OIPR) to verify the CIP code for the existing degree program.

14.2701

Degree Program
Enter the degree program associated with the CIP code entered above (e.g. Accounting).

Industrial and Systems Engineering

Effective Term
Enter the term (semester and year) that the certificate would start. Please keep in mind that this may be adjusted depending on University deadlines for approval process.

Fall
Effective Year

2023

Certificate Description

Enter a description of the certificate. This is limited to 50 words or fewer.

This certificate introduces students to the essential aspects of financial technologies. Required courses cover an overview of the FinTech industry, applications of the blockchain technology for investments and financial transactions, fundamentals of quantitative finance and numerical methods for pricing of derivative securities.

Requirements for Admission

List any requirements for admission to this new certificate program such as grade point average, background in the discipline, current enrollment status, etc.. Please indicate if the certificate only accepts students of a particular status: for example, current UF graduate students, graduate students in a specific college, non-degree seeking students, or any student status.

Applicants to this graduate certificate must be currently enrolled UF graduate students or nondegree seeking students who have earned a bachelor’s degree from a regionally accredited US institution. Up to 15 credits earned in the certificates may be eligible for subsequent transfer of credit to a UF master’s degree program. (subject to the approval of the supervisory committee and Graduate Council policies governing transfer credit). All non-degree seeking students will be advised of this transfer credit limit.

Requirements for Completion

List all of requirements for completion of the certificate program, such as courses, internships, projects, etc. For each course, indicate prefix, number, title, # credits, and established grading scheme (letter grade or S/U). The title should be identical to the official title of the course as listed in the Graduate catalog or <a href="http://gradcatalog.ufl.edu/">Graduate</a> catalog.

Required courses (9 credits):
(1) ESI5XXX - Introduction to Financial Technology (3 credits) - letter grade (approval #17849)
(2) FIN6936- Fundamentals of Quantitative Finance (2 credits, offered by Department of Finance) - letter grade
(3) ESI5XXX - Numerical Methods in Financial Engineering (4 credits) - letter grade (approval #17850)

Students must complete all courses with a B or better to earn the certificate.

Rationale and Place in Curriculum

Describe the rationale for offering this new certificate and having it on the transcript, its place in the curriculum, how it will enhance the quality of the existing program or department. Also describe its overlap with any existing certificates and programs, and a justification for any such overlap. Note that documentation of consultation will be expected for any certificate with overlapping content.

The Department of Industrial and Systems Engineering (ISE), in collaboration with the Department of Finance, is creating three graduate certificates in Financial Engineering: Financial Technology, Financial Math & Optimization and Financial Risk Analysis & Management. The target audience is the professionals working in the finance industry who can participate in these certificate programs to improve their knowledge and understanding of the field and to build a technical foundation for various applications.
These certificates can be earned individually or together. In addition to finance professionals, the certificates target full-time graduate students with the necessary background. The certificate in Financial Technology proposed here has no overlap with any existing certificate.

Credits earned in the certificate may be eligible for subsequent transfer of credit to a UF master’s degree program. (subject to the approval of the supervisory committee and Graduate Council policies governing transfer credit).

**Student Learning Outcomes**

*List each student learning outcome with its associated courses, assessment type (e.g. course-related exam/assignment/grade, final paper/project/presentation, standardized exam, capstone) and method (e.g. rubric, faculty committee, single faculty member).*

Student Learning Outcome: Identify the risks, limitations and implications of financial technology. Evaluation Method: Project work and/or exam questions in ESI5XXX - Introduction to Financial Technology evaluated by single faculty (course instructor).
Certificate | New for request 17733

Info
Request: Graduate Certificate in Public Archaeology
Description of request: The College of Liberal Arts and Sciences seeks to create a graduate certificate in Public Archaeology.
Submitter: Susan Gillespie sgillesp@ufl.edu
Created: 5/3/2023 7:41:40 PM
Form version: 4

Responses
Certificate Name
Enter the name of the certificate. Example: Urban Pest Management.

Public Archaeology

Transcript Title
Enter the transcript title of the certificate. This is limited to 50 characters, including spaces.

Public Archaeology

Credits
Enter the total number of credit hours needed to complete the certificate program.

12

Level
Enter the program level of the certificate.

Graduate

CIP Code
Enter the six digit Classification of Instructional Programs (CIP) code for the degree program associated with the proposed certificate. The code has the numerical format XX.XXXX. Contact the Office of Institutional Planning and Research (OIPR) to verify the CIP code for the existing degree program.

45.0201

Degree Program
Enter the degree program associated with the CIP code entered above (e.g. Accounting).

Anthropology
Effective Term
Enter the term (semester and year) that the certificate would start. Please keep in mind that this may be adjusted depending on University deadlines for approval process.

Earliest Available

Effective Year

Earliest Available

Certificate Description
Enter a description of the certificate. This is limited to 50 words or fewer.

The Certificate in Public Archaeology is designed for anthropology graduate students specializing in archaeology. It provides specific marketable knowledge and skills for a career in applied archaeology, such as Cultural Resource Management or Cultural Heritage, career areas that employ the majority of archaeologists.

Requirements for Admission
List any requirements for admission to this new certificate program such as grade point average, background in the discipline, current enrollment status, etc. Please indicate if the certificate only accepts students of a particular status: for example, current UF graduate students, graduate students in a specific college, non-degree seeking students, or any student status.

Students admitted for this certificate are required to be UF degree-seeking (M.A. or Ph.D.) graduate students in Anthropology specializing in archaeology. They must have a minimum overall GPA of 3.0 (undergraduate GPA if newly admitted to the graduate program; graduate GPA if applying while a graduate student).

Requirements for Completion
List all of requirements for completion of the certificate program, such as courses, internships, projects, etc. For each course, indicate prefix, number, title, # credits, and established grading scheme (letter grade or S/U). The title should be identical to the official title of the course as listed in the Graduate catalog or <a href="http://gradcatalog.ufl.edu/">Graduate</a> catalog.

To complete the 12-credit certificate, students must complete four 3-credit, letter-graded courses. Two are required, and two are chosen from a finite list of options. Some of these courses already exist, while others are being proposed for approval when the certificate comes into existence.

Two Core Required Courses (6 credits):

ANG 5184 Principles of Archaeology (3 credits, letter-graded)
Foundational principles of methods and practice in contemporary anthropological archaeology, including field research, interpretation of archaeological materials, temporal and spatial scales, and archaeological ethics.
ANG 5931 Special Topics: Practice of Public Archaeology (3 credits, letter-graded)
Practicum in the professional aspects of public archaeology, including law, ethics, heritage management, government and tribal consultation, community collaboration, and public communication.

Choose one from the following list of courses in Archaeological Materials Analysis (3 credits):
ANG 5126 Zooarcheology* (3 credits, letter-graded)
ANG 5536 Bioarchaeology (3 credits, letter-graded)
ANG 6122C Archaeological Ceramics (3 credits, letter-graded)
ANG 6128 Lithic Technology (3 credits, letter-graded)
ANG 6183 Laboratory Training in Archeology* (3 credits, letter-graded)

Choose one from the following list of courses in Digital Data Literacy in Archaeology (3 credits):
ANG 6XXX Applying GIS in Archaeological Research (Proposal Request #16490) (3 credits, letter-graded)
ANG 6XXX Data Analysis in Archaeology (Proposal Request # 16489) (3 credits, letter-graded)
ANG 6XXX Digital Methods in Archaeology (Proposal Request #17033) (3 credits, letter-graded)

*These legacy courses use the spelling of “archaeology,” common at the time they were created. Grade Requirements:
Courses taken to fulfill the certificate must earn a grade of “B” or higher.

Other Expectations:
Graduate students seeking the certificate in Public Archaeology are expected to complete additional coursework and practical training in archaeology for their graduate degree (M.A. or Ph.D.), including regional courses, topical courses, and archaeological fieldwork. An internship in archaeology (ANG 6945 Internship in Anthropology, variable credit, letter grade) will be arranged for students completing the certificate. This certificate with an M.A. degree makes the recipient immediately employable.

Rationale and Place in Curriculum
Describe the rationale for offering this new certificate and having it on the transcript, its place in the curriculum, how it will enhance the quality of the existing program or department. Also describe its overlap with any existing certificates and programs, and a justification for any such overlap. Note that documentation of consultation will be expected for any certificate with overlapping content.

The Anthropology Department has provided graduate degrees with specializations in Archaeology since its inception, with the focus on training for academic careers usually requiring a Ph.D. degree. Today many students are seeking careers in applied or public archaeology and related topics in anthropology that attend to societal needs of heritage management, often referred to in the U.S. as Cultural Resource Management (CRM). Since the 1960s, federal and state laws protecting historical and archaeological sites and/or mitigating the impacts of land development have provided opportunities for graduate-trained students to pursue careers in the technical, administrative, and regulatory aspects of CRM. The passage of the federal Infrastructure Investment and Jobs Act in 2021 ensures that careers in CRM will burgeon in years to come.
Over the next decade, US universities are projected to produce less than half the number of M.A. and Ph.D. level CRM archaeologists with professional qualification standards needed to fill projected job openings (Altschul, J. H., and T. H. Klein [2022] “Forecast for the US CRM Industry and Job Market: 2022-2031. Advances in Archaeological Practice 10[4]). This study further notes that “many current graduate programs are not producing graduates with skills and experiences that will make them successful in CRM careers. Graduate programs, in general, need to have a greater emphasis on CRM given that most archaeologists will be employed in this field.”

Our own consultations with colleagues in private-sector archaeology, government agencies, and federally recognized tribes underscore the growing demand for trained personnel in CRM. Mid-level careers require an M.A. degree with specialized training in applied archaeology beyond the usual coursework geared toward academic archaeology. This includes expertise in the legal and ethical aspects of government compliance archaeology as well as digital methods and applications of data acquisition and analysis. To ensure the best possible employment outcomes for graduates, the Anthropology Department will provide opportunities for paid internships in the final semester of the Certificate-holders’ M.A. program with governmental, private-sector, and tribal partners, whose input in the design of the certificates and related curriculum ensures the best fit between partner needs and student training.

Being trained in a comprehensive approach to cultural heritage, one that combines specific marketable skills with the holistic anthropological perspective of a graduate degree in Anthropology, will not only give Certificate-holding graduates a strong advantage in the employment competition of an expanding market but will also bring prestige to UF as a leader in reimagining heritage management.

There is no conflict or overlap with existing programs and offerings.

**Student Learning Outcomes**

List each student learning outcome with its associated courses, assessment type (e.g. course-related exam/assignment/grade, final paper/project/presentation, standardized exam, capstone) and method (e.g. rubric, faculty committee, single faculty member).

Students completing the certificate will be able to:

1. Identify and apply fundamental principles of archaeological site formation processes, site recording systems, chronological assessment, and interpretive concepts and methods for archaeological data.
   - course: ANG 5184 Principles of Archaeology
   - assessment type: exams, problem sets, applications to case studies
   - method of assessment: rubrics; single faculty member

2. Apply knowledge of archaeological research as theoretically informed and problem-oriented, grounded in scientific principles of explanation.
   - course: ANG 5184 Principles of Archaeology
   - assessment type: exams, discussion posts, development and oral presentation of a research design
   - method of assessment: rubrics; individual faculty members
3. Identify the legal and ethical frameworks of cultural heritage management and recognize the contexts for the application of relevant legal requirements and ethical imperatives.
course: ANG 5931 Special Topics: Practice of Public Archaeology
assessment type: exams, workshop projects, practical exercises
method of assessment: rubrics; single faculty member

4. Recognize key moral and ethical concerns in the practice of archaeology, acknowledging the plural interests of multiple stakeholders, including Indigenous groups
courses: ANG 5184 Principles of Archaeology; ANG 5931 Special Topics: Practice of Public Archaeology
assessment type: exams, discussion posts, papers
method of assessment: rubrics; individual faculty members

5. Identify and apply up-to-date methods of analysis of basic categories of archaeological materials.
courses: those chosen from among the options of Archaeological Materials Analysis
assessment type: exams, practicums, problem sets
method of assessment: rubrics; individual faculty members

6. Identify and apply up-to-date methods of acquiring, analyzing, visualizing, and managing digital archaeological data.
courses: those chosen from among the options of Digital Data Literacy in Archaeology
assessment type: practicums, problem sets, projects
method of assessment: rubrics; individual faculty members

7. Articulate the results of archaeological research in multiple media to various governmental and public stakeholders.
courses: ANG 5931 Special Topics: Practice of Public Archaeology
assessment type: class presentations, discussion posts
method of assessment: rubrics; individual faculty members
Info
Request: Modifying the Tropical Agriculture graduate certificate
Description of request: The College of Agricultural and Life Sciences seeks to modify the curriculum for the graduate certificate in Tropical Agriculture to support the on-time completion of the certificate for residential and online students.
Submitter: Kara Casy kcasy@ufl.edu
Created: 5/9/2023 12:08:18 AM
Form version: 4

Responses
Current Certificate Name

Tropical Agriculture

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

Current Transcript Name

Tropical Agriculture

Change Credit Hours?

No

Change Certificate Description?

No
Change Certificate Prerequisites?

No

Change Certificate Requirements?

Yes

Current Requirements

Core: ALS 5155 Global Agroecosystems (3 Credits)

Electives (9 credits): Pick 3 courses
AGR 6422 Environmental Crop Nutrition (3 credits, letter-graded)
AGR 6233 Tropical Grasslands Agroecosystems (3 credits, letter-graded)
AGR 5277C Tropical Crop Production (3 credits, letter-graded)
AGR 6905 Agronomic Problems (1-5 credits, max 8, letter-graded)
ENY 5566 Tropical Entomology (3 credits, letter-graded)
AEB 6675 International Agribusiness Marketing (3 credits, letter-graded)
AEB 7645 Economic Development and Agriculture (3 credits, letter-graded)
FOR 6170 Tropical Forestry (3 credits, letter-graded)
FOR 6628 Community Forest Management (3 credits, letter-graded)
BOT 5685C Tropical Botany (5 credits, letter-graded)
SWS 5132 Tropical Soil Management (3 credits, letter-graded)
HOS 5555 Tropical Fruit Production and Research in Florida (3 credits, letter-graded)
ORH 5282 Orchid Biology and Culture (3 credits, letter-graded)

Proposed Requirements

Core (6 credits): 2 required courses

ALS 5155 Global Agroecosystems (3 Credits, letter-graded)
AGR 5277C Tropical Crop Production (3 credits, letter-graded)

Electives (6 credits): Pick 2 courses from the list below.

AEB 6675 International Agribusiness Marketing (3 credits, letter-graded)
  or URP 6610 International Development Planning (3 credits, letter-graded)
SWS 5132 Tropical Soil Management (3 credits) or AGR 6422C Environmental Crop Nutrition (3 credits, letter-graded)
AGR 5230 Florida Grasslands Ecosystems or AGR 6233 Tropical Grasslands Agroecosystems (3 credits, letter-graded)
FOR 6170 Tropical Forestry (3 credits) or FOR 6628 Community Forest Management (3 credits, letter-graded)
ENY 5566 Tropical Entomology (3 credits, letter-graded)
HOS 5555 Tropical Fruit Production and Research in Florida (3 credits, letter-graded)
ALS 5905 International Research Immersion (3 credits, letter-graded)
ORH 5282 Orchid Biology and Culture (3 credits, letter-graded)
Impact on Program

The proposed changes include more electives that provide flexibility for online students. More courses are offered each semester, so students will be able to graduate on time with their certificates.

Rationale for Proposed Change(s)

Currently, this certificate is difficult for online students to complete due to the lack of courses available online and several courses that are not offered every year. The proposed modifications to the curriculum will allow students more elective options so they can complete the program on time.

We reached out to instructors of the newly added courses to confirm these offerings would be available for Tropical Agriculture certificate students, and we received supportive responses from the instructors.

Assessment Data Review

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

The program enrollment and completion numbers were reviewed before proposing these changes to the Agronomy Department faculty, who approved these proposed changes (see attached).

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: https://approval.ufl.edu/start-new-request/modify-aapslo-gradpro/

The Academic Assessment Plan was reviewed while proposing these changes to the certificate requirements. Any changes to the AAP will be proposed and submitted to the Academic Assessment Committee in Spring 2023.
Concentration | Modify for request 18412

Info
Request: Updates to curriculum for Biomedical Informatics MS concentration
Description of request: The College of Medicine seeks to modify the curriculum for the Graduate Concentration in Biomedical Informatics for the Master of Science (M.S.) with a major in Medical Sciences.
Submitter: Matthew Mitterko mmitterko@aa.ufl.edu
Created: 5/8/2023 4:51:54 PM
Form version: 3

Responses
Degree Level
Indicate the degree level in which the concentration is offered.

M - Master’s Degree

Thesis or Non-Thesis
Is this concentration for a thesis or non-thesis degree?

Thesis

Concentration
Enter the name of the concentration to be modified.

Biomedical Informatics

Effective Term
Enter the term (semester and year) at which the modification should be effective.

Fall

Effective Year

2023

Is this an undergraduate Innovation Academy Program

No

Department/Degree/Majors to Offer Concentration
List all the department / degree / major combinations at the degree level offering the concentration.

Offered by the College of Medicine, and the curriculum is coordinated by the Department of Health Outcomes and Biomedical Informatics.

The concentration is offered for the MS degree program in Medical Sciences, with a concentration in Biomedical Informatics.
For example, if you are requesting a change to the "Wetland Sciences" concentration at the master's level, you would need to list all master's level degree / major combinations from every participating department:

- 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

Current Curriculum for Concentration

From the 2021 HOBI Handbook: 16 core credits, 6 foundation credits, 3 statistics credits, 5-6 advanced electives credits, and 6 credits of mentored research experience, for a minimum of 36 credits. Curriculum listed below:

**Core Courses - select all (16 credits)**
- GMS 6803 Data Science for Clinical Research 3 Letter-grade
- GMS 6804 Translational Bioinformatics 3 Letter-grade
- GMS 6805 Information Modeling in Biomedicine 3 Letter-grade
- GMS 6806 Security and Privacy for Clinical Research 3 Letter-grade
- GMS 6850 Foundations of Biomedical Informatics 3 Letter-grade
- GMS 7887 Health Outcomes & Biomedical Informatics PhD Research Seminar 1 S/U

**Foundation Courses – select 2 courses (6 credits)**
- GMS 6856 Introduction to Biomedical Natural Language Processing 3 Letter-grade
- BME 6938 Introduction to Biomedical Image Analysis and Imaging Informatics 3 Letter-grade
- CEN 5035 Software Engineering 3 Letter-grade
- COP 5725 Database Management Systems 3 Letter-grade
- GMS 6822 Measuring and Analyzing Health Outcomes 3 Letter-grade
- PHC 6410 Psychological, Behavioral, and Social Issues in Public Health 3 Letter-grade
- PHC 6405 Theoretical Foundations of Public Health or PHC 6001 Principles of Epidemiology in Public Health 3 Letter-grade
- GMS 7866 Principles of Referent Tracking in Biomedical Informatics 3 Letter-grade

**Statistics Courses - select 1 course (3 credits)**
- STA 6166 Statistical Methods in Research I 3 Letter-grade
- PHC 6050 Statistical Methods for Health Science Research I 3 Letter-grade
- PHC 6052 Introduction to Biostatistical Methods 3 Letter-grade

**Advanced Electives - select 2 courses (5-6 credits)**
- CAP 5100 Human-Computer Interaction 3 Letter-grade
- CAP 5510 Bioinformatics 3 Letter-grade
- CAP 5635 Artificial Intelligence Concepts 3 Letter-grade
- CAP 6610 Machine Learning 3 Letter-grade
- COP 5725 Database Management Systems 3 Letter-grade
- COT 5405 Analysis of Algorithms 3 Letter-grade
COT 5615 Mathematics for Intelligent Systems 3 Letter-grade
COP 5618 Concurrent Programming 3 Letter-grade
PHI 5135 Graduate Logic 3 Letter-grade
BME 6938 Special Topics: Machine Learning for Health and Biomedical Applications 3 Letter-grade
STA 6167 Statistical Methods in Research II 3 Letter-grade
STA 5325 Fundamentals of Probability 3 Letter-grade
GMS 6848 Ensuring Rigor and Reproducibility in Clinical and Translational Research 1 Letter-grade
GMS 6857 Clinical Decision Support Systems 3 Letter-grade
GMS 6885 Translational Health Research Design 3 Letter-grade
GMS 7093 Introduction to Clinical and Translational Research 2 Letter-grade

Capstone Mentored Research Experience (6 credit hours of one course option)
GMS 6905 Independent Studies in Medical Sciences (Non-Thesis Eligible) 6 Letter-grade
—or- GMS 6971 Research for Master’s Thesis (Thesis Eligible) 6 S/U

Total (36 credits minimum)

Please see attachment of side-by-side MS curricula (proposed and current).

Proposed Concentration Changes
Describe the proposed changes to the concentration. If requesting a name change please provide details here as well.

The proposed curriculum reorganizes the coursework in the 4 coursework categories (core, foundation, statistics, and advanced elective). The proposed changes are:
1) To migrate the 3 statistics course options (STA 6166, PHC 6050, PHC 6052) to the foundation course section;
2) To move GMS 6806 (Security and Privacy in Clinical Research) from the core course section to the foundation course section;
3) To add GMS 7858 (Causal Artificial Intelligence for Health Research) to the foundation course section;
4) To remove PHC 6410 as an option in the foundation course section;
5) To increase the credit count for foundation courses from 6 to 12 credits;
6) To add mentor approval for up to 1 course in the advanced electives, based on a student’s specific research aims.

The proposed curriculum is as follows:

Core Courses - select all (13 credits)
GMS 6803 Data Science for Clinical Research 3 Letter-grade
GMS 6804 Translational Bioinformatics 3 Letter-grade
GMS 6805 Information Modeling in Biomedicine 3 Letter-grade
GMS 6850 Foundations of Biomedical Informatics 3 Letter-grade
GMS 7887 HOBI PhD Research Seminar 1 S/U

Foundation Courses – select 4 courses (12 credits)
GMS 6806 Security and Privacy in Clinical Research 3 Letter-grade
GMS 6856 Introduction to Biomedical Natural Language Processing 3 Letter-grade
GMS 7858 Causal Artificial Intelligence for Health Research 3 Letter-grade
GMS 7866 Principles of Referent Tracking in Biomedical Informatics 3 Letter-grade
GMS 6822 Measuring and Analyzing Health Outcomes 3 Letter-grade
PHC 6405 Theoretical Foundations of Public Health
or PHC 6001 Principles of Epidemiology in Public Health 3 Letter-grade
STA 6166 Statistical Methods in Research I
or PHC 6050 Statistical Methods for Health Science Research I
or PHC 6052 Introduction to Biostatistical Methods 3 Letter-grade
BME 6938 Introduction to Biomedical Image Analysis and Imaging Informatics 3 Letter-grade
CEN 5035 Software Engineering 3 Letter-grade
COP 5725 Database Management Systems 3 Letter-grade

Advanced Electives - select 2 courses (5-6 credits) from below, with up to 1 course substitution subject to mentor approval
CAP 5100 Human-Computer Interaction 3 Letter-grade
CAP 5510 Bioinformatics 3 Letter-grade
CAP 5635 Artificial Intelligence Concepts 3 Letter-grade
CAP 6610 Machine Learning 3 Letter-grade
COP 5725 Database Management Systems 3 Letter-grade
COT 5405 Analysis of Algorithms 3 Letter-grade
COT 5615 Mathematics for Intelligent Systems 3 Letter-grade
COP 5618 Concurrent Programming 3 Letter-grade
PHI 5135 Graduate Logic 3 Letter-grade
BME 6938 Special Topics: Machine Learning for Health and Biomedical Applications 3 Letter-grade
STA 6167 Statistical Methods in Research II 3 Letter-grade
STA 5325 Fundamentals of Probability 3 Letter-grade
GMS 6848 Ensuring Rigor and Reproducibility in Clinical and Translational Research 1 Letter-grade
GMS 6857 Clinical Decision Support Systems 3 Letter-grade
GMS 6885 Translational Health Research Design 3 Letter-grade
GMS 7093 Introduction to Clinical and Translational Research 2 Letter-grade

Capstone Mentored Research Experience (6 credit hours of one course option)
GMS 6905 Independent Studies in Medical Sciences (Non-Thesis Eligible) 6 Letter-grade
—or- GMS 6971 Research for Master’s Thesis (Thesis Eligible) 6 S/U

Total (36 credits minimum)

Please see attachment of side-by-side MS curricula (proposed and current).

Pedagogical Rationale/Justification
Describe the rationale for the proposed changes to the concentration.

1) To allow flexibility in training based on changing norms in the field of biomedical informatics.
   a. While statistics coursework is vital for many of our students, they may already have significant coursework in the area given the quantitative skills we screen for the admission of BMI PhD concentration applicants.
   i. Likewise, if a student does not have a strong statistics background, they will need familiarity with statistics to be successful, and for these students their mentors will require a listed statistics course as one of the foundation course selections.
   b. One core course dropped to a foundations course, and the statistics requirement was also added to the foundations section, to emphasize that GMS 6806 is important for some students and would be considered a requirement for specific research plans, but not all.
c. Mentors are coordinating their advising with the new leadership in the Education Office, to support research-driven coursework selections, alongside the planning for course offerings throughout the year, and tracking of academic progress done by the Education Office throughout the year.

d. A new course in Causal AI (GMS 7858) was added as a foundation course. This course was added in response to growing demands for AI coursework in HOBI, in the College, and across the university. We may develop additional courses, pending the demand for them.

2) Our advanced electives, and the process for selecting them, has been adjusted. Because the field of biomedical informatics is rapidly evolving, more relevant courses are becoming available in the College and across the university. Therefore, instead of only taking courses from of our elective list, our students will have the option to take 1 course, based on mentor recommendation and approval, that is not in the HOBI curriculum.

**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 expected impact on other programs.

**Assessment Data Review**
*Describe the Student Learning Outcomes and/or program goal data that was reviewed to support the proposed changes.*

Yearly assessment will be conducted via admissions data and retention efforts within the concentrations.

**Academic Learning Compact and Academic Assessment Plan**
*Describe the modifications to the Academic Assessment Plan that result from the proposed change.*

N/A

**Catalog Copy**
*Submitter agrees to prepare and upload document showing the catalog copy with the current and proposed curricula edited using the “track changes” feature in Word.*

Yes
### Proposed MS concentration curriculum

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
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<td>HOBI PhD Research Seminar</td>
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<td><strong>Foundation Courses – select 4 courses (12 credits)</strong></td>
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Course and credit changes in red

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Course and credit changes in red
Concentration | Modify for request 18424

Info
Request: Updates to curriculum for Biomedical Informatics PhD concentration
Description of request: The College of Medicine seeks to modify the curriculum for the Graduate Concentration in Biomedical Informatics for the Doctor of Philosophy (Ph.D.) with a major in Medical Sciences.
Submitter: Matthew Mitterko mmitterko@aa.ufl.edu
Created: 5/8/2023 4:37:17 PM
Form version: 3

Responses
Degree Level
Indicate the degree level in which the concentration is offered.

D - Doctoral Degree

Thesis or Non-Thesis
Is this concentration for a thesis or non-thesis degree?

Thesis

Concentration
Enter the name of the concentration to be modified.

Biomedical Informatics

Effective Term
Enter the term (semester and year) at which the modification should be effective.

Fall

Effective Year

2023

Is this an undergraduate Innovation Academy Program

No

Department/Degree/Majors to Offer Concentration
List all the department / degree / major combinations at the degree level offering the concentration.

Offered by the College of Medicine, for the Department of Health Outcomes and Biomedical Informatics
Offered for degrees in: PhD in Medical Sciences, with a concentration in Biomedical Informatics

For example, if you are requesting a change to the "Wetland Sciences" concentration at the master's level, you would need to list all master's level degree / major combinations from every participating department:
Current Curriculum for Concentration

From 2021 Handbook - 20 core credits, 6 foundation credits, 3 statistics credits, 11 advanced electives credits, and 50 research credits, for a minimum of 90 credits.

Core – All Required (20 credits)
- GMS 6803 Data Science for Clinical Research 3 Letter-grade
- GMS 6804 Translational Bioinformatics 3 Letter-grade
- GMS 6805 Information Modeling in Biomedicine 3 Letter-grade
- GMS 6850 Foundations of Biomedical Informatics 3 Letter-grade
- GMS 7877 Responsible Conduct of Biomedical Research (Formerly GMS 7003) 1 Letter-grade
- GMS 6806 Security and Privacy in Clinical Research 3 Letter-grade
- GMS 7887 HOBI PhD Research Seminar (2 credits/summer semesters during years 1 & 2) 4 S/U

Foundation Courses – Select 2 courses (6 credits)
- GMS 6856 Introduction to Biomedical Natural Language Processing 3 Letter-grade
- BME 6938 Introduction to Biomedical Image Analysis and Imaging Informatics 3 Letter-grade
- CEN 5035 Software Engineering 3 Letter-grade
- COP 5725 Database Management Systems 3 Letter-grade
- GMS 6822 Measuring and Analyzing Health Outcomes 3 Letter-grade
- GMS 7866 Principles of Referent Tracking in Biomedical Informatics 3 Letter-grade
- PHC 6405 Theoretical Foundations of Public Health
- or PHC 6001 Principles of Epidemiology in Public Health 3 Letter-grade

Statistics Courses- Select 1 course (3 credits)
- STA 6166 Statistical Methods in Research I 3 Letter-grade
- PHC 6050 Statistical Methods for Health Science Research I 3 Letter-grade
- PHC 6052 Introduction to Biostatistical Methods 3 Letter-grade

Advanced Electives – 11 credits subject to mentor approval including but not limited to suggestions below
- CAP 5100 Human-Computer Interaction 3 Letter-grade
- CAP 5510 Bioinformatics 3 Letter-grade
- CAP 5635 Artificial Intelligence Concepts 3 Letter-grade
- CAP 6610 Machine Learning 3 Letter-grade
- COP 5725 Database Management Systems 3 Letter-grade
- COT 5405 Analysis of Algorithms 3 Letter-grade
- COT 5615 Mathematics for Intelligent Systems 3 Letter-grade
- COP 5618 Concurrent Programming 3 Letter-grade
- BME 6938 Special Topics: Machine Learning for Health and Biomedical Applications 3 Letter-grade
The proposed changes to the concentration are:

1) To migrate the 3 statistics course options (STA 6167, PHC 6050, PHC 6052) to the foundation course section;
2) To move GMS 6806 (Security and Privacy in Clinical Research) from the core course section to the foundation course section.
3) To add GMS 7858 (Causal Artificial Intelligence for Health Research) to the foundation course section;
4) To increase the credit count for foundation courses from 6 to 12 credits;
5) To reduce the credit count for core course from 20 to 17 credits;
6) To add GMS 6029 (AI journal club) as an elective option for students participating in the College of Medicine ERS program (more below).

Core – All Required (17 credits)

- GMS 6803 Data Science for Clinical Research 3 Letter-grade
- GMS 6804 Translational Bioinformatics 3 Letter-grade
- GMS 6805 Information Modeling in Biomedicine 3 Letter-grade
- GMS 6850 Foundations of Biomedical Informatics 3 Letter-grade
- GMS 7877 Responsible Conduct of Biomedical Research (Formerly GMS 7003) 1 Letter-grade
- GMS 7887 HOBI PhD Research Seminar (2 credits/summer semesters during years 1 & 2) 4 S/U

Foundation Courses – Select 4 courses (12 credits)

- GMS 6806 Security and Privacy in Clinical Research 3 Letter-grade
- GMS 6856 Introduction to Biomedical Natural Language Processing 3 Letter-grade
- GMS 7858 Causal Artificial Intelligence for Health Research 3 Letter-grade
GMS 7866 Principles of Referent Tracking in Biomedical Informatics 3 Letter-grade
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COT 5615 Mathematics for Intelligent Systems 3 Letter-grade
COP 5618 Concurrent Programming 3 Letter-grade
BME 6938 Special Topics: Machine Learning for Health and Biomedical Applications 3 Letter-grade
STA 6167 Statistical Methods in Research II 3 Letter-grade
GMS 6848 Ensuring Rigor and Reproducibility in Clinical and Translational Research 1 Letter-grade
GMS 6857 Clinical Decision Support Systems 3 Letter-grade
GMS 7093 Introduction to Clinical and Translational Research 2 Letter-grade
STA 5325 Fundamentals of Probability 3 Letter-grade
STA 6826 Stochastic Processes I 3 Letter-grade
PHC 6053 Regression Methods for the Health and Life Sciences 3 Letter-grade
GMS 6029 AI Journal Club 1 S/U

Research Credits (50 credits)
GMS 7979 Advanced Research
& GMS 7980 Research for Doctoral Dissertation 50 S/U

Total (90 credits minimum)

Please see attached side-by-side comparison of curriculum.

Pedagogical Rationale/Justification
Describe the rationale for the proposed changes to the concentration.

1) To allow flexibility in training based on changing norms in the field of biomedical informatics.
   a. While statistics coursework is vital for many of our students, they may already have significant coursework in the area and this is a part of our initial admissions screening for BMI PhD concentration applicants.
      i. Likewise, if a student does not have a strong statistics background, they will need familiarity with statistics to be successful, and for these students their mentors will require a listed statistics course as one of the foundation course selections.
   b. One core course dropped to a foundations course, and the statistics requirement was also
added to the foundations section, to emphasize that GMS 6806 is important for some students and would be considered a requirement for specific research plans, but not all.

c. Mentors are coordinating their advising with the new leadership in the Education Office, to support research-driven coursework selections, alongside the planning for course offerings throughout the year, and tracking of academic progress done by the Education Office throughout the year.

d. A new course in Causal AI (GMS 7858) was added as a foundation course. This course was added in response to growing demands for AI coursework in HOBI, in the College, and across the university. We may develop additional courses, pending the demand for them.

2) The changes allow the department to align the curriculum with various university and campus-wide AI initiatives. The Emerging Research Scholars program in AI, through the College of Medicine, is providing an interdisciplinary cohort of students with the opportunity to work together. 4 BMI PhD students are already participating in the first year, and these students, along with other BMI PhD students, will likely take courses across the College, and in allied colleges (e.g. College of Engineering), to customize their coursework to the needs of their research plans.

3) Our advanced electives, and the process for selecting them, has been adjusted. Because the field of biomedical informatics is rapidly evolving, more relevant courses are becoming available in the College and across the university. Therefore, our advanced elective list was adjusted slightly, to include the AI Journal Club as an option for those students in the ERS-AI program.

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 expected impact on other programs

Assessment Data Review
Describe the Student Learning Outcomes and/or program goal data that was reviewed to support the proposed changes.

Yearly assessment will be based on recruitment and retention data.

Academic Learning Compact and Academic Assessment Plan
Describe the modifications to the Academic Assessment Plan that result from the proposed change.

N/A

Catalog Copy
Submitter agrees to prepare and upload document showing the catalog copy with the current and proposed curricula edited using the “track changes” feature in Word.

Yes
### Proposed PhD concentration curriculum

<table>
<thead>
<tr>
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<td>GMS 7887</td>
<td>HOBI PhD Research Seminar (2 credits/summer semesters during years 1 &amp; 2)</td>
<td>4 S/U</td>
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**Foundation Courses – Select 4 courses (12 credits)**

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**Advanced Electives – 11 credits subject to mentor approval including but not limited to suggestions below**

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**Research Credits (50 credits)**

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**Total (90 credits minimum)**

### Current PhD concentration curriculum

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**Foundation Courses – Select 2 courses (6 credits)**

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**Total (90 credits minimum)**

*Credit and course changes in red*
Info
Request: Computer Science (CS) MS Core Course Update
Description of request: The College of Engineering seeks to modify the curriculum for the Master of Science (M.S.) with a major in Computer Science.
Submitter: Joseph Wilson jnw@cise.ufl.edu
Created: 5/8/2023 9:40:20 AM
Form version: 2

Responses
Major Name
Enter the name of the major. Example: "Mathematical Modeling"

Computer Science

Major Code
Enter the two-letter or three-letter major code.

CPS

Degree Program Name
Enter the name of the degree program in which the major is offered.

M.S. with a major in Computer Science

Undergraduate Innovation Academy Program
Is this an undergraduate program in the Innovation Academy?

No

Effective Term
Enter the term (semester and year) that the curriculum change would be effective.

Earliest Available

Effective Year

Earliest Available

Current Curriculum for Major

REQUIRED CORE COURSES:

COT 5405 Analysis of Algorithms Three from the following five courses:
- CDA 5155 Computer Architecture Principles
- COP 5615 Distributed Operating System Principles
- COP 5556 Programming Language Principles
- CNT 5106C Computer Networks
- COP 5536 Advanced Data Structures
COURSE AND CREDIT REQUIREMENT FOR THESIS OPTION:
- 12 CISE Graduate core credits
- 6 Master thesis research credits (CIS 6971)
- 12 other CISE graduate-level credits:
  + Minimum of 6 credits MUST be taken from CISE graduate-level courses.
    - Up to 1 credit of CIS 6935 (Graduate Seminar) allowed.
    - Up to 3 credits of CIS 6905 (Individual Study) allowed.
    - EXCLUDES CIS 6910, CIS 6940, CIS 7979, CIS 7980.
    + Maximum 6 credits outside the department MAY be taken with approval from the Graduate Affairs Committee.
      - Up to 3 credits of EGN 5949 (Internship) allowed.

COURSE AND CREDIT REQUIREMENT FOR NON-THESIS OPTION:
- 12 CISE graduate core credits.
- 18 other CISE graduate-level credits.
  + Minimum of 12 credits MUST be taken from CISE graduate-level courses.
    - Up to 1 credit of CIS 6935 (Graduate Seminar) allowed.
    - Up to 3 credits of CIS 6905 (Individual Study) allowed.
    - EXCLUDES CIS 6910, CIS 6940, CIS 7979, CIS 7980.
    + Maximum 6 credits outside the department MAY be taken with approval from the Graduate Affairs Committee.
      - Up to 3 credits of EGN 5949 (Internship) allowed.

Proposed Curriculum Changes
Describe the proposed changes to the curriculum. You may list out the specific changes or provide the new semester models where changes are proposed. Please be precise and clear in stating requested changes. If the change is to offer the program through UF Online, please explain and attach a letter of support from the Director of UF Online.

The change reorganizes the core class choices to be broader and modifies a required core course to be one of a possible choice of twelve courses.
This changes the student core from one required course and a choice of three from a list of five courses to a choice of four from a list of 12 courses.
--- text of the change follows ---

REQUIRED CORE COURSES:
Four from the following twelve courses:
- CAP 5100 Human-Computer Interaction (3 credits, letter-graded)
- CAP 5510 Machine Learning (3 credits, letter-graded)
- CAP 5725 Database Management Systems (3 credits, letter-graded)
- CDA 5155 Computer Architecture Principles (3 credits, letter-graded)
- CEN 5035 Software Engineering (3 credits, letter-graded)
- CIS 5371 Introduction to Cryptography (3 credits, letter-graded)
- CNT 5106C Introduction to Computer Networks (3 credits, letter-graded)
- COP 5536 Advanced Data Structures (3 credits, letter-graded)
- COP 5556 Programming Language Principles (3 credits, letter-graded)
- COP 5615 Distributed Operating System Principles (3 credits, letter-graded)
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COURSE AND CREDIT REQUIREMENT FOR THESIS OPTION:
- 12 CISE Graduate core credits
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    o Up to 3 credits of CIS 6905 (Individual Study) allowed.
    o EXCLUDES CIS 6910, CIS 6940, CIS 7979, CIS 7980.
  + Maximum 6 credits of graduate courses outside the department MAY be taken with approval from the Graduate Affairs Committee.
    o Up to 3 credits of EGN 5949 (Internship) allowed.

COURSE AND CREDIT REQUIREMENT FOR NON-THESIS OPTION:
- 12 CISE graduate core credits.
- 18 other CISE graduate-level credits.
  + Minimum of 12 credits MUST be taken from CISE graduate-level courses.
    o Up to 1 credit of CIS 6935 (Graduate Seminar) allowed.
    o Up to 3 credits of CIS 6905 (Individual Study) allowed.
    o EXCLUDES CIS 6910, CIS 6940, CIS 6971, CIS 7979, CIS 7980.
  + Maximum 6 credits of graduate courses outside the department MAY be taken with approval from the Graduate Affairs Committee.
    o Up to 3 credits of EGN 5949 (Internship) allowed.

UF Online Curriculum Change
*Will this curriculum change be applied to a UF online program as well?*
No

Pedagogical Rationale/Justification
*Describe the rationale for the proposed changes to the curriculum.*

The department has seen much growth in the range of sub-disciplines our faculty study. This change allows graduate students to choose from a wider variety of our current course offerings.

Thus, we seek to broaden our core but clarify that one cannot simply follow a long path of courses in a particular subspecialty of computer science if one wishes to be a well-rounded student.

We have also come to recognize that the traditional approach to teaching Analysis of Algorithms is now more of a topic for research-oriented students, and we find that most of our Master's students are much more application and systems-oriented than in past years. Thus, we seek to make this course one of the broader core we now propose.

Impact on Enrollment, Retention, Graduation
*Describe any potential impact of the curriculum changes on students who are currently in the major.*

We have no indication that this will affect enrollment, retention, or graduate as it is a change that is compatible with all students' current program plans. We will notify all current students of their expanded options by email sent upon approval of the change.
Assessment Data Review

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

SLO 1 Knowledge: Students identify, formulate, and solve computer science and engineering problems.

The proposed change is consistent with this SLO. It provides a broader set of knowledge areas, all relevant to current Computer Science mastery.

SLO 2 Knowledge: Students can critically read computer science and engineering literature.

The proposed change is consistent with this SLO. All additional core courses have robust supporting academic literature venues.

SLO 3 Skill: Students use the techniques, skills, and tools necessary for computer science and engineering practice at an advanced level.

The proposed change is consistent with this SLO. The additional core courses have numerous supporting techniques, skills, and tools.

Academic Learning Compact and Academic Assessment Plan

Describe the modifications to the Academic Learning Compact (for undergraduate programs) and Academic Assessment Plan that result from the proposed change.

The proposed change does not affect data captured and analyzed in Academic Assessment, thus, no modifications are expected to be necessary.

Catalog Copy

Submitter agrees to prepare and upload document showing the catalog copy with the current and proposed curricula edited using the “track changes” feature in Word.

Yes
Info

Request: Reaffirmation of the M. Acc and J.D. combination graduate/professional degree

Description of request: The Levin College of Law seeks to reaffirm the combination graduate/professional degree program between the Master of Accounting (M.Acc.) with a major in Accounting and the Juris Doctor (J.D.) with a major in Law.

Submitter: Ruth McIlhenny ruthm@law.ufl.edu

Created: 5/4/2023 3:10:00 PM

Form version: 5

Responses

Department Name (Graduate Degree Program)

Enter the name of the department offering the undergraduate degree program.

Fisher School of Accounting

College Name (Graduate Degree Program)

Enter the complete name for the college/school for the department listed above.

Warrington College of Business

Major Name (Graduate Degree Program)

Enter the name of the graduate degree program (e.g., Bachelor of Arts in History).

Master of Accounting

Major Code (Graduate Degree Program)

Enter the major code of the undergraduate degree program (e.g., HY).

ACT

Department Name (Professional Degree Program)

Enter the name of the department offering the graduate degree program.

LAW

College Name (Professional Degree Program)

Enter the complete name for the college/school for the department listed above.

Levin College of Law

Major Name (Professional Degree Program)

Enter the name of the professional degree program (e.g., Master of Arts in History).

Juris Doctor with a major in Law

Major Code (Professional Degree Program)

Enter the major code of the professional degree program (e.g., HY).

LAW
Effective Term
Enter the term (semester and year) that students would first be admitted to the program.

Earliest Available

Effective Year

Earliest Available

What is the rationale for proposing this Combination Degree?

This combination graduate/professional degree program (M.Acc./J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.Acc. in a more efficient matter. Because student learning outcomes are measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

What are the benefits of establishing this program?

This combination graduate/professional degree program (M.Acc./J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.Acc. in a more efficient matter. Because student learning outcomes are measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

Double-counted credits and Degree Requirements
How will double-counted credits meet the requirements of both degrees? Please note both graduate and professional degree requirements.

The combination graduate/professional degree program (M.Acc./J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.Acc. in a more efficient matter. Because student learning outcomes are being measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program, but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.
Coherent Course of Study
How does the Combination degree program present a coherent course of study? Please explain how
the combination program maintains a logical, sequential course of study that maintains both the
integrity of the graduate 8-semester plan and the professional course of study.

Students generally will be full-time in either the Levin College of Law or the Graduate School in
their first year and will be full-time in the other program in their second year. Students will take
mostly courses in the Levin College of Law in their third and fourth years, as well as any
remaining coursework needed to complete the MA program requirements.

Meeting Degree Requirements
Please describe the process used to determine the meeting of requirements for both degrees as a
coherent course of study for students.

The M.Acc. degree program requires a minimum of 34 credits and will allow ten credits of
appropriate letter-graded professional law courses earned with a grade of B or better to count
toward the degree. Combination M.Acc./J.D. degree participants must satisfy all other M.Acc.,
Graduate Council, and Graduate School degree requirements for the M.Acc. degree to be
awarded.

The J.D. degree program requires a minimum of 88 credits and will allow ten credits of
appropriate letter-graded graduate accounting courses earned with a grade of B or better to
count toward the degree. Combination M.Acc./J.D. degree participants must satisfy all other
J.D. and College of Law degree requirements for the J.D. to be awarded.

All J.D. required courses are excluded from double counting, including all first year classes and
upper level required courses. Any elective may be used for double counted credits. In case of
student conduct or health or coursework (learning outcome) issues, the Levin College of Law
Office of Student Affairs will be involved in remediation. Although we may work with the
Student Conduct Office or the Dean of Students on other matters, the College of Law would be
responsible for helping the student rejoin the community.

Both degrees are to be awarded in the same term; otherwise, the degree candidate must satisfy
the requirements of the degree in a stand-alone fashion as if the candidate had not been a
combination M.Acc./J.D. degree program participant.

Student Qualifications
How are students determined to be academically qualified for this Combination program?
Please describe the additional criteria used to select students for this combination program beyond
the GPA. These include but are not limited to:
(a) faculty recommendations
(b) student performance on external examinations
(c) evidence such as portfolios, recordings, software programs, created or creative works
(d) any other indicators of the students’ potential for success

Applicants are required to submit an application to both programs, and must meet all admission
requirements for each. Applicants must submit all required documentation to the respective
college, including personal statements, resumes, letters of recommendation, and test scores
(Graduate Management Admission Test and Law School Admission Test). Detailed information
on application processes and procedures and minimum criteria can be found on the following
website: Fisher School of Accounting: https://warrington.ufl.edu/jd-macc/
The minimum standards which must be met before a student will be considered for admission into the graduate program for the Masters of Accounting are the following:

- Bachelor degree, or equivalent. International applicants may be required to have their academic credentials evaluated by private evaluation services to establish academic equivalency. Review the list of approved private evaluation services.
- GPA of at least 3.0 (rounding not permitted) calculated on all courses taken after the student reaches 60 hours. For applicants who earned a bachelor’s degree from the University of Florida, only UF courses will be included, unless those courses were taken after the bachelor’s degree was awarded.
- GPA of at least 3.0 for all accounting courses numbered 3000 and above:
  - Applicants must have, at a minimum, completed 12 upper-division credits of accounting including coverage of a minimum of: 6 credits of financial accounting, 3 credits of cost & managerial accounting, and 3 credits of accounting information systems. For more information, view our entire preparatory course requirements (Note: If admitted, the student will still have to satisfy all unmet preparatory course requirements).
  - Once a student has earned a “C” grade in these courses, repeats of the same course will not be computed in the student’s accounting GPA if the repeat grade is higher than a “C-“.
  - *Note: If a student elects to take a 3000-level or above accounting class under the S/U option in the Spring 2020 semester, and earns a grade of S, and then repeats the course, and earns a grade of C or better, the second attempt will not be factored into the accounting GPA for purposes of admission to the MAcc.
  - It is strongly recommended that upper-division accounting preparatory courses be taken at a business school accredited by the AACSB.
- Applicants applying for the Fall 2023 semester or earlier must complete the GMAT. GRE scores may not be substituted for the GMAT.

Levin College of Law: https://www.law.ufl.edu/admissions/apply/standards-for-admission#jd-application

The College of Law gives substantial weight to numerical predictors of academic success (undergraduate grade point average and LSAT scores). Numbers alone, however, are not dispositive. The College of Law considers all information submitted by applicants. Factors such as the difficulty of prior academic programs, academic honors, letters of recommendation, or graduate training may provide additional information about academic preparation and potential. In some cases, demonstrated interest, prior training, or a variety of experiences may indicate that an applicant is particularly well-suited to take advantage of specialized educational opportunities.

Information about work experience, leadership, community service, overcoming prior disadvantages or commitment to serve those for whom legal services have been unavailable or difficult to obtain may show that an applicant is in a unique position to add diversity to the law school community or to make significant contributions to the practice of law.

**Eligibility Requirements**

*Please provide the specific admissions requirements for this program, including but not limited to the minimum GPA, GRE score (when appropriate), the application procedures, and the eligibility period when a student may apply for this program.*

This combination degree program is not open to students who have already earned either of these degrees.
Is this combination degree double-counting 12 or fewer credits?

Yes

Double-counted Credit Justification

*Provide a justification of the number of double-counted credits.*

Please explain how the double-counted credits do not compromise the integrity and quality of the combined programs and enable students to meet each program's learning outcomes at no loss of fidelity.

Double-counted Credit Justification

The combination graduate/professional degree program (M.Acc./J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.Acc. in a more efficient matter. Allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study because the double-counted credits are all optional elective courses. None of the courses double-counted are required for either discipline and student learning outcomes are still measured through each of these degree programs and each individual course. Each institution has its own internal degree audit to ensure the satisfactory completion of the school's programmatic requirements. The American Bar Association, the Law School's accreditation body, does not require approval of the content of such elective courses. As such, offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program. In fact, it provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

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.*

None
## Juris Doctor/Master of Accounting Combination Program

### Sample Program Plan

The following plan is an example. Individual plans, and length of program, will vary depending on concentrations, which program the student starts first, pursuit of internships, course availability, etc. Students are encouraged to meet with academic advisors in both programs upon admission, and regularly throughout their program, to discuss their plans.

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| Total Credits per Degree | 78 | 24 |
| Total Credits            | 102 |
Info
Request: Reaffirmation of the M.B.A./J.D. combination graduate/professional degree
Description of request: The Levin College of Law seeks to reaffirm the combination
graduate/professional degree program between the Master of Business Administration (M.B.A.) with
a major in Business Administration and the Juris Doctor (J.D.) with a major in Law.
Submitter: Ruth McIlhenny ruthm@law.ufl.edu
Created: 5/4/2023 3:10:50 PM
Form version: 3

Responses
Department Name (Graduate Degree Program)
Enter the name of the department offering the undergraduate degree program.

Hough Graduate School of Business

College Name (Graduate Degree Program)
Enter the complete name for the college/school for the department listed above.

Warrington College of Business

Major Name (Graduate Degree Program)
Enter the name of the graduate degree program (e.g., Bachelor of Arts in History).

Master of Business Administration with a major in Business Administration

Major Code (Graduate Degree Program)
Enter the major code of the undergraduate degree program (e.g., HY).

BUS

Department Name (Professional Degree Program)
Enter the name of the department offering the graduate degree program.

LAW

College Name (Professional Degree Program)
Enter the complete name for the college/school for the department listed above.

Levin College of Law

Major Name (Professional Degree Program)
Enter the name of the professional degree program (e.g., Master of Arts in History).

Juris Doctor with a major in Law
Major Code (Professional Degree Program)
Enter the major code of the professional degree program (e.g., HY).

LAW

Effective Term
Enter the term (semester and year) that students would first be admitted to the program.

Earliest Available

Effective Year

Earliest Available

What is the rationale for proposing this Combination Degree?

This combination graduate/professional degree program (M.B.A./J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.B.A. in a more efficient manner. Because student learning outcomes are measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

What are the benefits of establishing this program?

This combination graduate/professional degree program (M.B.A./J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.B.A. in a more efficient manner. Because student learning outcomes are measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

Double-counted credits and Degree Requirements
How will double-counted credits meet the requirements of both degrees? Please note both graduate and professional degree requirements.

This combination graduate/professional degree program (M.B.A./J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.B.A. in a more efficient manner. Because student learning outcomes are measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of
study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program, but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

**Coherent Course of Study**

*How does the Combination degree program present a coherent course of study? Please explain how the combination program maintains a logical, sequential course of study that maintains both the integrity of the graduate 8-semester plan and the professional course of study.*

Students generally will be full-time in either the Levin College of Law or the Graduate School in their first year and will be full-time in the other program in their second year. Students will take mostly courses in the Levin College of Law in their third and fourth years, as well as any remaining coursework needed to complete the MBA program requirements.

**Meeting Degree Requirements**

*Please describe the process used to determine the meeting of requirements for both degrees as a coherent course of study for students.*

The M.B.A. degree program requires a minimum of 48 credits and will allow 12 credits of appropriate letter-graded professional law courses earned with a grade of B or better to count toward the degree. Combination M.B.A./J.D. degree participants must satisfy all other M.B.A., Graduate Council, and Graduate School degree requirements for the M.B.A. degree to be awarded.

The J.D. degree program requires a minimum of 88 credits and will allow 12 credits of appropriate letter-graded graduate accounting courses earned with a grade of B or better to count toward the degree. Combination MBA./J.D. degree participants must satisfy all other J.D. and College of Law degree requirements for the J.D. to be awarded.

All J.D. required courses are excluded from double counting, including all first year classes and upper level required courses. Any elective may be used for double counted credits. In case of student conduct or health or coursework (learning outcome) issues, the Levin College of Law Office of Student Affairs will be involved in remediation. Although we may work with the Student Conduct Office or the Dean of Students on other matters, the College of Law would be responsible for helping the student rejoin the community.

Both degrees are to be awarded in the same term; otherwise, the degree candidate must satisfy the requirements of the degree in a stand-alone fashion as if the candidate had not been a combination MBA./J.D. degree program participant.

**Student Qualifications**

*How are students determined to be academically qualified for this Combination program? Please describe the additional criteria used to select students for this combination program beyond the GPA. These include but are not limited to:*

(a) faculty recommendations  
(b) student performance on external examinations  
(c) evidence such as portfolios, recordings, software programs, created or creative works  
(d) any other indicators of the students’ potential for success
Applicants are required to meet all admissions requirements for the Full-Time MBA All-Majors or Business Majors program including the UF Graduate School Application, two professional letters of recommendation, submission/verification of official transcripts showing a four-year bachelor’s degree from an accredited U.S. college or university, or its four-year international equivalent, and an official GMAT or GRE exam score. Common work experience requirements are waived for JD students pursuing the combination degree. Specifics on the application process can be found here: https://warrington.ufl.edu/mba/apply/ and in-depth admissions criteria can be found here: https://warrington.ufl.edu/mba/program-options/full-time-mba/full-time-mba-one-year-all-majors/.

The College of Law gives substantial weight to numerical predictors of academic success (undergraduate grade point average and LSAT scores). Numbers alone, however, are not dispositive. The College of Law considers all information submitted by applicants. Factors such as the difficulty of prior academic programs, academic honors, letters of recommendation, or graduate training may provide additional information about academic preparation and potential. In some cases, demonstrated interest, prior training, or a variety of experiences may indicate that an applicant is particularly well-suited to take advantage of specialized educational opportunities. Information about work experience, leadership, community service, overcoming prior disadvantages or commitment to serve those for whom legal services have been unavailable or difficult to obtain may show that an applicant is in a unique position to add diversity to the law school community or to make significant contributions to the practice of law.

Eligibility Requirements
Please provide the specific admissions requirements for this program, including but not limited to the minimum GPA, GRE score (when appropriate), the application procedures, and the eligibility period when a student may apply for this program.

This combination degree program is not open to students who have already earned either of these degrees.

Is this combination degree double-counting 12 or fewer credits?
Yes

Double-counted Credit Justification
Provide a justification of the number of double-counted credits. Please explain how the double-counted credits do not compromise the integrity and quality of the combined programs and enable students to meet each program’s learning outcomes at no loss of fidelity.

Double-counted Credit Justification The combination graduate/professional degree program (M.B.A./J.D.) program enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.B.A. in a more efficient manner. Allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in Warrington School of Business and C or better in Levin College of Law to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study because the double-counted credits are all optional elective courses. None of the courses double-counted are those that are required for either discipline and student learning outcomes are still measured through each of these degree programs and each individual course. Each institution has its own internal degree audit to ensure the satisfactory completion of the school’s programmatic
requirements. The American Bar Association, the Law School's accreditation body, does not require approval of the content of such elective courses. As such, offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program. In fact, it provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

**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.*

None
Degree | New | CombinationDegree-GradPro for request 18529

Info
Request: Reaffirmation of the M.S. (Finance)/J.D. combination graduate/professional degree
Description of request: The Levin College of Law seeks to reaffirm the combination graduate/professional degree program between the Master of Science (M.S.) with a major in Finance and the Juris Doctor (J.D.) with a major in Law
Submitter: Ruth McIlhenny ruthm@law.ufl.edu
Created: 5/4/2023 3:16:57 PM
Form version: 3

Responses

Department Name (Graduate Degree Program)
Enter the name of the department offering the undergraduate degree program.

Eugene F. Brigham Finance, Insurance and Real Estate Department

College Name (Graduate Degree Program)
Enter the complete name for the college/school for the department listed above.

Warrington College of Business

Major Name (Graduate Degree Program)
Enter the name of the graduate degree program (e.g., Bachelor of Arts in History).

Master of Science with a major in Finance

Major Code (Graduate Degree Program)
Enter the major code of the undergraduate degree program (e.g., HY).

FIN

Department Name (Professional Degree Program)
Enter the name of the department offering the graduate degree program.

LAW

College Name (Professional Degree Program)
Enter the complete name for the college/school for the department listed above.

Levin College of Law

Major Name (Professional Degree Program)
Enter the name of the professional degree program (e.g., Master of Arts in History).

Juris Doctor with a major in Law
Major Code (Professional Degree Program)
Enter the major code of the professional degree program (e.g., HY).

LAW

Effective Term
Enter the term (semester and year) that students would first be admitted to the program.

Earliest Available

Effective Year

Earliest Available

What is the rationale for proposing this Combination Degree?

The combination graduate/professional degree program (M.S. (Finance)/J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and a M.S. with a major in Finance in a more efficient matter. Because student learning outcomes are being measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better courses in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

What are the benefits of establishing this program?

The combination graduate/professional degree program (M.S. (Finance)/J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.S. with a major in Finance in a more efficient matter. Because student learning outcomes are measured through each of these degree programs, allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better courses in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

Double-counted credits and Degree Requirements
How will double-counted credits meet the requirements of both degrees? Please note both graduate and professional degree requirements.

The combination graduate/professional degree program (M.S. (Finance)/J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.S. with a major in Finance in a more efficient matter. Because student learning outcomes are measured through each of these degree programs, allowing a certain number of letter-graded
graduate or professional courses earned with a grade of B or better courses in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

Coherent Course of Study

*How does the Combination degree program present a coherent course of study? Please explain how the combination program maintains a logical, sequential course of study that maintains both the integrity of the graduate 8-semester plan and the professional course of study.*

Students generally will be full-time in either the Levin College of Law or the Graduate School in their first year and will be full-time in the other program in their second year. Students will take mostly courses in the Levin College of Law in their third and fourth years, as well as any remaining coursework needed to complete the MA program requirements.

Meeting Degree Requirements

*Please describe the process used to determine the meeting of requirements for both degrees as a coherent course of study for students.*

The Master of Science with a major in Finance will allow 12 credits of eligible professional law coursework earned with a grade of B or better to count toward the degree. Combination M.S. (Finance) /J.D. degree participants must satisfy all other M.S. with a major in Finance degree program, Graduate Council, and Graduate School degree requirements for the Master of Science with a major in Finance degree to be awarded.

The J.D. degree program requires a minimum of 88 credits and will allow 12 credits of appropriate letter-graded graduate accounting courses earned with a grade of B or better to count toward the degree. Combination M.S. (Finance)/J.D. degree participants must satisfy all other J.D. and College of Law degree requirements for the J.D. to be awarded.

All J.D. required courses are excluded from double counting, including all first year classes and upper level required courses. Any elective may be used for double counted credits.

In case of student conduct or health or coursework (learning outcome) issues, the Levin College of Law Office of Student Affairs will be involved in remediation. Although we may work with the Student Conduct Office or the Dean of Students on other matters, the College of Law would be responsible for helping the student rejoin the community.

Both degrees are to be awarded in the same term; otherwise, the degree candidate must satisfy the requirements of the degree in a stand-alone fashion as if the candidate had not been a combination M.S. (Finance)/J.D. degree program participant.

Student Qualifications

*How are students determined to be academically qualified for this Combination program? Please describe the additional criteria used to select students for this combination program beyond the GPA. These include but are not limited to:*
(a) faculty recommendations
(b) student performance on external examinations
(c) evidence such as portfolios, recordings, software programs, created or creative works
(d) any other indicators of the students’ potential for success

Applicants are required to meet all admissions requirements for the Full-Time Master of Science in Finance or Business Majors program including the UF Graduate School Application, two professional letters of recommendation, submission/verification of official transcripts showing a four-year bachelor’s degree from an accredited U.S. college or university, or its four-year international equivalent, and an official GMAT or GRE exam score. Common work experience requirements are waived for JD students pursuing the combination degree. Specifics on the application process can be found here: https://warrington.ufl.edu/mba/apply/ and in-depth admissions criteria can be found here: https://warrington.ufl.edu/mba/program-options/full-time-mba/full-time-mba-one-year-all-majors/.

The College of Law gives substantial weight to numerical predictors of academic success (undergraduate grade point average and LSAT or GRE scores). Numbers alone, however, are not dispositive. The College of Law considers all information submitted by applicants. Factors such as the difficulty of prior academic programs, academic honors, letters of recommendation, or graduate training may provide additional information about academic preparation and potential. In some cases, demonstrated interest, prior training, or a variety of experiences may indicate that an applicant is particularly well-suited to take advantage of specialized educational opportunities.

Information about work experience, leadership, community service, overcoming prior disadvantages or commitment to serve those for whom legal services have been unavailable or difficult to obtain may show that an applicant is in a unique position to add diversity to the law school community or to make significant contributions to the practice of law.

Eligibility Requirements
Please provide the specific admissions requirements for this program, including but not limited to the minimum GPA, GRE score (when appropriate), the application procedures, and the eligibility period when a student may apply for this program.

This combination degree program is not open to students who have already earned either of these degrees.

Is this combination degree double-counting 12 or fewer credits?

Yes

Double-counted Credit Justification
Provide a justification of the number of double-counted credits.
Please explain how the double-counted credits do not compromise the integrity and quality of the combined programs and enable students to meet each program’s learning outcomes at no loss of fidelity.

Double-counted Credit Justification The combination graduate/professional degree program (M.S. (Finance)/J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.S. with a major in Finance in a more efficient matter. Allowing a certain number of letter-graded graduate or professional courses earned with a
grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study because the double-counted credits are all optional elective courses. None of the courses double-counted are required for either discipline and student learning outcomes are still measured through each of these degree programs and each individual course. Each institution has its own internal degree audit to ensure the satisfactory completion of the school’s programmatic requirements. The American Bar Association, the Law School’s accreditation body, does not require approval of the content of such elective courses. As such, offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program. In fact, it provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

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.

None
# MSF Course Planning for JD MSF Students

Students may double count 12 credits from the JD degree towards the MSF graduate degree. MSF courses are typically taken in year 2. Unless noted as “required”, each course below is an elective.

## FALL Choices

<table>
<thead>
<tr>
<th>Offered</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>module 1</td>
<td>FIN 5437 Asset Valuation Risk and Return - required</td>
</tr>
<tr>
<td>module 1</td>
<td>FIN 6427 Measuring and Managing Value</td>
</tr>
<tr>
<td>module 1</td>
<td>FIN 6545 Fixed Income Security Valuation</td>
</tr>
<tr>
<td>module 1</td>
<td>REE 6045 Introduction to Real Estate</td>
</tr>
<tr>
<td>module 1</td>
<td>FIN 6537 Derivative Securities</td>
</tr>
<tr>
<td>module 1</td>
<td>FIN 6728 Capitalism &amp; Regulation</td>
</tr>
<tr>
<td>module 1</td>
<td>FIN 6785 Investment Banking &amp; Corporate Financial Modeling I</td>
</tr>
<tr>
<td>module 2</td>
<td>FIN 5439 Capital Structure Risk Management - required</td>
</tr>
<tr>
<td>module 2</td>
<td>FIN 6465 Financial Statement Analysis</td>
</tr>
<tr>
<td>module 2</td>
<td>FIN 6547 Interest Rate Risk Management</td>
</tr>
<tr>
<td>module 2</td>
<td>FIN 6547 International Finance</td>
</tr>
<tr>
<td>module 2</td>
<td>FIN 6936 Special Topics in Investment Finance</td>
</tr>
<tr>
<td>module 2</td>
<td>FIN 6785 Investment Banking &amp; Corporate Financial Modeling II</td>
</tr>
<tr>
<td>module 2</td>
<td>REE 6395 Investment Property Analysis</td>
</tr>
</tbody>
</table>

## SPRING Choices

<table>
<thead>
<tr>
<th>Offered</th>
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</thead>
<tbody>
<tr>
<td>module 3</td>
<td>FIN 6429 Financial Decision Making</td>
</tr>
<tr>
<td>module 3</td>
<td>FIN 6545 Fixed Income Security Valuation, the module 1 section is prerequisite for FIN 6547</td>
</tr>
<tr>
<td>module 3</td>
<td>FIN 6575 Emerging Markets Finance I</td>
</tr>
<tr>
<td>module 3</td>
<td>REE 6045 Introduction to Real Estate, same course is also offered in fall module 1</td>
</tr>
<tr>
<td>module 3</td>
<td>FIN 6496 Mergers &amp; Acquisitions</td>
</tr>
<tr>
<td>module 3</td>
<td>FIN 6930 Equity Portfolio Strategies Fri AM block, limited to 20</td>
</tr>
<tr>
<td>module 3</td>
<td>FIN 6930 Structuring &amp; Solving Business Problems Fri AM block, limited to 16</td>
</tr>
<tr>
<td>module 4</td>
<td>FIN 6438 Study in Valuation</td>
</tr>
<tr>
<td>module 4</td>
<td>ENT 6416 Venture Finance</td>
</tr>
<tr>
<td>module 4</td>
<td>FIN 6528 Asset Allocation</td>
</tr>
<tr>
<td>module 4</td>
<td>FIN 6936 Special Topics in Investment Finance</td>
</tr>
<tr>
<td>module 4</td>
<td>REE 6208 Secondary Mortgage Markets</td>
</tr>
<tr>
<td>module 4</td>
<td>FIN 6930 Value Investing</td>
</tr>
<tr>
<td>module 4</td>
<td>FIN 6296 Capitalism</td>
</tr>
</tbody>
</table>

## SHARED CREDITS

<table>
<thead>
<tr>
<th>12 credits coming from the JD degree</th>
<th>List of courses to be pre-approved by MSF prior to taking MSF courses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total credits should equal 32.</td>
<td></td>
</tr>
</tbody>
</table>
Info
Request: Reaffirmation of the M.S. (Real Estate)/J.D. combination graduate/professional degree
Description of request: The Levin College of Law seeks to reaffirm the combination degree program between the Master of Science (M.S.) with a major in Real Estate and the Juris Doctor (J.D.) with a major in Law
Submitter: Ruth McIlhenny ruthm@law.ufl.edu
Created: 5/4/2023 3:12:36 PM
Form version: 3

Responses
Department Name (Graduate Degree Program)
Enter the name of the department offering the undergraduate degree program.

Eugene F. Brigham Finance, Insurance and Real Estate Department

College Name (Graduate Degree Program)
Enter the complete name for the college/school for the department listed above.

Warrington College of Business

Major Name (Graduate Degree Program)
Enter the name of the graduate degree program (e.g., Bachelor of Arts in History).

Master of Science with a major in Real Estate

Major Code (Graduate Degree Program)
Enter the major code of the undergraduate degree program (e.g., HY).

REA

Department Name (Professional Degree Program)
Enter the name of the department offering the graduate degree program.

LAW

College Name (Professional Degree Program)
Enter the complete name for the college/school for the department listed above.

Levin College of Law

Major Name (Professional Degree Program)
Enter the name of the professional degree program (e.g., Master of Arts in History).

Juris Doctor with a major in Law
Major Code (Professional Degree Program)
Enter the major code of the professional degree program (e.g., HY).

LAW

Effective Term
Enter the term (semester and year) that students would first be admitted to the program.

Earliest Available

Effective Year

2023

What is the rationale for proposing this Combination Degree?

This combination graduate/professional degree program (M.S. (Real Estate)/J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.S. with a major in Real Estate in a more efficient manner. Because student learning outcomes are being measured through each of these degree programs, allowing a certain number letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

What are the benefits of establishing this program?

This combination graduate/professional degree program (M.S. (Real Estate)/J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.S. with a major in Real Estate in a more efficient manner. Because student learning outcomes are being measured through each of these degree programs, allowing a certain number letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

Double-counted credits and Degree Requirements

How will double-counted credits meet the requirements of both degrees? Please note both graduate and professional degree requirements.

This combination graduate/professional degree program (M.S. (Real Estate)/J.D.) enables students who are interested in advancing their study in both of these fields to earn a J.D. and an M.S. with a major in Real Estate in a more efficient manner. Because student learning outcomes are being measured through each of these degree programs, allowing a certain number letter-
graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study. Offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program but provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

Coherent Course of Study
How does the Combination degree program present a coherent course of study? Please explain how the combination program maintains a logical, sequential course of study that maintains both the integrity of the graduate 8-semester plan and the professional course of study.

Students generally will be full-time in either the Levin College of Law or the Graduate School in their first year and will be full-time in the other program in their second year. Students will take mostly courses in the Levin College of Law in their third and fourth years, as well as any remaining coursework needed to complete the MSRE program requirements.

Meeting Degree Requirements
Please describe the process used to determine the meeting of requirements for both degrees as a coherent course of study for students.

The Master of Science with a major in Real Estate will allow 12 credits of eligible letter-graded professional law courses earned with a grade of B or better to count toward the degree. Combination M.S. (Real Estate)/J.D. degree participants must satisfy all other Master of Science with a major in Real Estate degree program, Graduate Council, and Graduate School degree requirements for the M.S. with a major in Real Estate degree to be awarded.

The J.D. degree program requires a minimum of 88 credits and will allow ten credits of appropriate letter-graded graduate accounting courses earned with a grade of B or better to count toward the degree. Combination M.S. (Real Estate)/J.D. degree participants must satisfy all other J.D. and College of Law degree requirements for the J.D. to be awarded.

All J.D. required courses are excluded from double counting, including all first-year classes and upper level required courses. Any elective may be used for double-counted credits. In case of student conduct or health or coursework (learning outcome) issues, the Levin College of Law Office of Student Affairs will be involved in remediation. Although we may work with the Student Conduct Office or the Dean of Students on other matters, the College of Law would be responsible for helping the student rejoin the community.

Both degrees are to be awarded in the same term; otherwise, the degree candidate must satisfy the requirements of the degree in a stand-alone fashion as if the candidate had not been a combination M.S. (Real Estate)/J.D. degree program participant.

Student Qualifications
How are students determined to be academically qualified for this Combination program? Please describe the additional criteria used to select students for this combination program beyond the GPA. These include but are not limited to:
(a) faculty recommendations
(b) student performance on external examinations
Applicants are required to meet all admissions criteria and requirements for the MSRE program including the UF Graduate School Application, GMAT/GRE, statement of purpose, resume, two letters of recommendation, and official bachelor’s degree transcripts from an accredited institution.

**MSRE Minimum requirements:**

- Bachelor’s degree from an approved institution
- 3.2 GPA (last 60 hrs of undergraduate coursework). Average incoming GPA is approximately 3.52
  (Optional as of 2023: Average incoming GMAT score is 615 or GRE score of 320.
- Prior work experience, including summer internships, is preferred (non-real estate experience may apply)
- Refer to the MSRE admission website for detailed instructions/requirements: https://warrington.ufl.edu/master-of-science-in-real-estate/admissions/

The College of Law gives substantial weight to numerical predictors of academic success (undergraduate grade point average and LSAT scores). Numbers alone, however, are not dispositive. The College of Law considers all information submitted by applicants. Factors such as the difficulty of prior academic programs, academic honors, letters of recommendation, or graduate training may provide additional information about academic preparation and potential. In some cases, demonstrated interest, prior training, or a variety of experiences may indicate that an applicant is particularly well-suited to take advantage of specialized educational opportunities.

Information about work experience, leadership, community service, overcoming prior disadvantages or commitment to serve those for whom legal services have been unavailable or difficult to obtain may show that an applicant is in a unique position to add diversity to the law school community or to make significant contributions to the practice of law.

**Eligibility Requirements**

*Please provide the specific admissions requirements for this program, including but not limited to the minimum GPA, GRE score (when appropriate), the application procedures, and the eligibility period when a student may apply for this program.*

This combination degree program is not open to students who have already earned either of these degrees.

**Is this combination degree double-counting 12 or fewer credits?**

Yes

**Double-counted Credit Justification**

*Provide a justification of the number of double-counted credits. Please explain how the double-counted credits do not compromise the integrity and quality of the combined programs and enable students to meet each program’s learning outcomes at no loss of fidelity.*

Double-counted Credit Justification The combination graduate/professional degree program (M.S. (Real Estate)/J.D.) enables students who are interested in advancing their study in both of
these fields to earn a J.D. and an M.S. with a major in Real Estate in a more efficient manner. Allowing a certain number of letter-graded graduate or professional courses earned with a grade of B or better in one graduate or professional school to satisfy the programmatic requirements of the other will not compromise the integrity of the course of study because the double-counted credits are all optional elective courses. None of the courses double counted are required for either discipline and student learning outcomes are still being measured through each of these degree programs and each individual course. Each institution has its own internal degree audit to ensure the satisfactory completion of the school's programmatic requirements. The American Bar Association, the Law School's accreditation body, does not require approval of the content of such elective courses. As such, offering this combination degree program does not negatively impact a student’s ability to gain the knowledge, skills, and professional behavior outlined as the learning outcomes of the program. In fact, it provides an opportunity for a student earning this combination degree to have a more nuanced opportunity to augment their knowledge across two disciplines.

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.

None
Graduate Curriculum Committee
Minutes

April 11, 2023
Meeting Materials

Voting Conducted
via Zoom
I. Presentation and review of the Minutes from the March 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 Course Proposal(s) from the University Curriculum Committee: The following are newly requested course proposals that were presented at the February UCC meeting. Proposed course titles and descriptions are listed below.

HHP – Applied Physiology and Kinesiology
1. APK 5XXX *Applied Sport Science*
   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18051](https://secure.aa.ufl.edu/Approval/reports/18051)

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

2. APK 5XXX *Strength and Conditioning for Beginning Practitioners*
   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18031](https://secure.aa.ufl.edu/Approval/reports/18031)

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

ENG – Industrial and Systems Engineering
3. ESI 5XXX *Data Analytics for ISE*
   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/17540](https://secure.aa.ufl.edu/Approval/reports/17540)

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.
4. ESI 5XXX  
*Introduction to Financial Technology*

Link to proposal:  [https://secure(aa.ufl.edu/Approval/reports/17849](https://secure(aa.ufl.edu/Approval/reports/17849)

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

5. ESI 5XXX  
*Machine Learning for Financial Risk Management*

Link to proposal:  [https://secure(aa.ufl.edu/Approval/reports/17884](https://secure(aa.ufl.edu/Approval/reports/17884)

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

6. ESI 5XXX  
*Numerical Methods in Financial Engineering*

Link to proposal:  [https://secure(aa.ufl.edu/Approval/reports/17850](https://secure(aa.ufl.edu/Approval/reports/17850)

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

7. ESI 5XXX  
*Optimization for Financial Engineering*

Link to proposal:  [https://secure(aa.ufl.edu/Approval/reports/17883](https://secure(aa.ufl.edu/Approval/reports/17883)

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

8. ESI 5XXX  
*Stochastic Calculus in Financial Engineering*

Link to proposal:  [https://secure(aa.ufl.edu/Approval/reports/17851](https://secure(aa.ufl.edu/Approval/reports/17851)

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

9. ESI 6892  
*Master’s Project in Financial Engineering*

Link to proposal:  [https://secure(aa.ufl.edu/Approval/reports/17937](https://secure(aa.ufl.edu/Approval/reports/17937)

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

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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  Grant Writing in Health & Human Performance
   Link to proposal:  https://secure.aa.ufl.edu/Approval/reports/17627

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

ENG – Civil and Coastal Engineering
2. CGN 6XXXC  Engineering and Construction Analytics using BIM
   Link to proposal:  https://secure.aa.ufl.edu/Approval/reports/17863

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

CLAS – Economics
3. ECO 7XXX  Applied Macroeconomics I
   Link to proposal:  https://secure.aa.ufl.edu/Approval/reports/18335

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

4. ECO 7XXX  Applied Macroeconomics II
   Link to proposal:  https://secure.aa.ufl.edu/Approval/reports/18337

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

ENG – Environmental Engineering Sciences
5. EES 6XXX  Coastal Policy Lab
   Link to proposal:  https://secure.aa.ufl.edu/Approval/reports/17870

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

CALS – Entomology and Nematology
6. ENY 6XXXC  Social Insects
   Link to proposal:  https://secure.aa.ufl.edu/Approval/reports/18204

   Proposal has been conditionally approved. Once revised, the proposal can be administratively approved without further review by the GCC.
CALS – Microbiology and Cell Science

7. MCB 6XXX  *Analysis, Interpretation, and Visualization of Microbiological Data*
   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18024](https://secure.aa.ufl.edu/Approval/reports/18024)

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

COP – Pharmaceutics

8. PHA 6XXX  *Nanomedicine-based Immunotherapy*
   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18359](https://secure.aa.ufl.edu/Approval/reports/18359)

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

9. PHA 6XXX  *Population Pharmacokinetics and Pharmacodynamics*
   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18353](https://secure.aa.ufl.edu/Approval/reports/18353)

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

HHP – Sport Management

10. SPM 6XXX  *Fair Competition*
    Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18115](https://secure.aa.ufl.edu/Approval/reports/18115)

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

11. SPM 6XXX  *Sport Business Law*
    Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18116](https://secure.aa.ufl.edu/Approval/reports/18116)

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

VI. Information Items:

1. AEB 5188 – 17995 – Change pre-requisites
2. AEB 5326 – 17996 – Change pre-requisites
3. AEB 5516 – 17998 – Change pre-requisites
4. AEB 6385 – 17999 – Change pre-requisites
5. AEB 6675 – 18000 – Change pre-requisites
6. AEB 6106 – 18004 – Change pre-requisites
7. AEB 6553 – 18005 – Change pre-requisites
8. AEB 7108 – 18007 – Change pre-requisites
9. AEB 7184 – 18008 – Change pre-requisites
10. AEB 7220 – 18009 – Change pre-requisites
11. AEB 7453 – 18010 – Change pre-requisites
12. AEB 7504 – 18011 – Change pre-requisites
13. AEB 7571 – 18012 – Change pre-requisites
14. AEB 7572 – 18013 – Change pre-requisites
15. AEB 7645 – 18014 – Change pre-requisites
16. AEB 7182 – 18015 – Change pre-requisites
17. AEB 7333 – 18016 – Change pre-requisites
18. AEB 7483 – 18017 – Change pre-requisites
19. AEB 7573 – 18018 – Change pre-requisites
20. APK 6900 – 18311 – Transfer Ownership
21. APK 6490 – 18312 – Transfer Ownership
22. CGN 7980 – 18195 – Change pre-requisite
23. CGN 7979 – 18199 – Change pre-requisites
24. EDH 6040 – 18179 – Change course description
25. EOC 7980 – 18196 – Change pre-requisites
26. EOC 7979 – 18200 – Change pre-requisites
27. FAS 6932 – 18343 – Adjust repeatable max from 10 to 12
28. FOR 6934 – 18344 – Adjust repeatable max from 10 to 12
29. HLP 6911 – 18313 – Share Ownership
30. HLP 6935 – 18314 – Share Ownership
31. LEI 5121 – 18315 – Transfer Ownership
32. LEI 6903 – 18316 – Transfer Ownership
33. PET 5936 – 18317 – Transfer Ownership
34. PET 6910 – 18318 & 18319 – Transfer Ownership
35. PET 6947 – 18321 – Transfer Ownership
36. PET 6971 – 18322 – Transfer Ownership
37. PHA 6283 – 18139 – Change course title
38. PHA 6264 – 18166 – Change course title, description, and pre-reqs
39. PHC 6000 – 18242 – Share Ownership
40. PHC 6002 – 18243 – Share Ownership
41. PHC 6003 – 18244 – Share Ownership
42. PHC 6011 – 18245 – Share Ownership
43. PHC 6016 – 18246 – Share Ownership
44. PHC 6194 – 18247 – Share Ownership
45. PHC 6405 – 18387 – Change pre-requisites
Graduate Curriculum Committee
Agenda

May 11, 2023
Meeting Materials

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

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

There are no updates to present at this time.

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

COP - Pharmaceutical Outcomes and Policy

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

   This is a request to change the course title from “Structure, Process, and Outcomes of Regulation I” to “Structure, Process, and Outcomes of Regulation” and change the credit hours from 2 to 3.

COP - Pharmacotherapy and Translational Research

2. PHA 6427  *Pharmacogenetics of Drug Metabolism and Transport*

   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18477](https://secure.aa.ufl.edu/Approval/reports/18477)

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

COP - Pharmaceutics

3. PHA 6740  *Fundamentals of Grant Writing in the Pharm Sciences*

   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18476](https://secure.aa.ufl.edu/Approval/reports/18476)

   This is a request to change the credit hours from 1 to 2.

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

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

   An introduction to the engineering design of controlled environment agriculture systems, including glazing materials selection, fan sizing for mechanical ventilation, lighting distribution, cooling system design with fan-and-pad evaporative cooling, and heating system design with hot water floor heating.

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

HHP – Applied Physiology and Kinesiology

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

   The course is designed for students to learn advanced dissection skills from a whole systems approach with the intent of practical application. The primary focus will involve human cadaver dissection. The role of anatomical structures as they relate to musculoskeletal injury mechanisms, evaluation, and rehabilitation will be emphasized.

ENG – Civil and Coastal Engineering

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

   Covers nondestructive and geophysical methods, and their engineering related applications. It includes (i) the principles of elastic waves and associated computational methods; (ii) the fundamentals on inverse theory and signal processing; (iii) inversion methods (e.g., global and deterministic); and (iv) real-world applications. The applications include geotechnical site characterization (soil/rock and sinkhole) and evaluation of concrete structural components (bridge deck/slab).

ENG – Computer and Information Science and Engineering

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

   Human-centered methods for the design and evaluation of intelligent algorithms for recognizing user input in advanced modalities such as gesture, handwriting, speech, and more. Algorithms and modalities vary; students will implement and extend an existing algorithm, evaluating it on user input data students will collect from real people.
4. CIS 6XXX  
Cyber-physical System Security
Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/17805](https://secure.aa.ufl.edu/Approval/reports/17805)

Covers foundational concepts of cyber-physical system security. In particular, hardware and software threats and mitigation strategies of integrating sensing and actuation, AI computation, infrastructure control, and networking. Students will learn the challenges of building secure systems, analyzing research papers, writing technical essays, presenting security research problems, and conducting hands-on testing.

ENG – Chemical Engineering

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

Introduction to fundamental data science visualization methods and algorithms, with a strong emphasis on applications in science and technology.

SFRC – Fisheries, Aquatic Sciences, and Geomatics

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

Presents the history and logic of marine protected areas (MPAs) and their advantages and disadvantages. The science of MPAs will be explained as well as an overview of traditional approaches of fisheries management. The importance of ecological principles when creating an MPA will be emphasized. An overview of sampling theory and the need for empirical data to document the success or failure of MPAs will be presented.

CLAS – Geography

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

Provides advanced theoretical knowledge and empirical lessons on the governance of community wildlife conservation. Introduces theories of property and property rights, collective action, scale, participation, democracy, participatory technology development, etc. Makes extensive use of ongoing case studies, focusing on pioneering sites in Africa.

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

Compares exclusionary and inclusive wildlife conservation models from an historical, institutional, and economic perspective. Juxtapositions wildlife recovery through inclusive model (southern African policy outlier) against global policy norms and wildlife decline. Discusses wildlife economy on public versus working lands (private, community). Focus is wildlife economic and governance concepts and policy.
MED – Neuroscience

9. GMS 5XXX  
*Ticket to Ride as a Neuroscience PhD Graduate Student*

Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18483](https://secure.aa.ufl.edu/Approval/reports/18483)

The purpose of this course is to provide students the basic knowledge that they need to succeed in graduate school and position them to achieve their career goals. This class will help align the students’ expectations with those of the program. Additionally, with the course’s requirement of an individual development plan (IDP) and discussion of student goals with the Course Director as the final exam, this course will help the program to accommodate individual needs and direct the student to a

10. GMS 6XXX  
*Statistics for Neuroscientists*

Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18288](https://secure.aa.ufl.edu/Approval/reports/18288)

Rapid advances in neuroscience have increased expectations for analysis, rigor, and data interpretation. Students will learn data management, organization, visualization, and statistical methods necessary to plan experiments and analyze neuroscience data. Students will learn how to import data from a variety of source formats and structures, how to restructure and organize data for effective analysis and visualization using modern approaches, and statistical analysis of neuroscience data.

MED – Molecular Genetics and Microbiology

11. GMS 6109  
*Advanced Bacteriology*

Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18107](https://secure.aa.ufl.edu/Approval/reports/18107)

This course is a compendium of two one-credit courses that are often taught in succession over a semester: GMS 6038 Bacterial Genetics and Physiology and 6169 Antimicrobial Strategies. It covers bacterial structure, physiology, genetics, antibiotics, and antibiotic resistance.

CALS – Microbiology and Cell Science

12. MCB 6XXX  
*Careers for Impact in Microbiology and Cell Science*

Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18379](https://secure.aa.ufl.edu/Approval/reports/18379)

This course will prepare students with connections into a variety of Microbiology and Cell Science careers. Essential networking and communication skills will be honed through practical application exercises. A portfolio will be created to identify and obtain suitable experiential learning and career opportunities.
13. **MCB 6XXX**  *Innovation Project Management for Life Sciences*
   Link to proposal:  [https://secure.aa.ufl.edu/Approval/reports/18381](https://secure.aa.ufl.edu/Approval/reports/18381)

   This course will empower students with practical tools to manage innovation projects typical of life science research & development. Challenges and methodologies associated with developing objectives, preparing project plans, establishing metrics, defining responsibilities, as well as mitigating risks and dealing with uncertainties will be discussed. Skills for strategic prioritization, time management, meeting facilitation, and communication will be strengthened to promote an innovative culture.

VM - Physiological Sciences

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

   This course will introduce students into the use of New Approach Methodologies (NAMs) in the practice of human toxicology and ecotoxicology.

VI.  **Information Items:**

1. **ANS 6312C** – 18216 – Change to course title, description, and credit hours from 4 to 3
2. **ECH 6843** – 17312 – Change to course title and description
3. **ECO 7938** – 18334 – Change maximum repeatable credit from 8 to 20
4. **FIN 6905** – 18413 – Change maximum repeatable credit from 9 to 15
5. **ENU 5142** – 18269 – Change to course title, description, and pre-requisites
6. **FIN 7938** – 18299 – Change maximum repeatable credit from 7 to 30
7. **GEO 6706** – 18410 – Change to course title and description
8. **PHI 6639** – 18406 – Change maximum repeatable credit from 6 to 18
9. **PHI 6905** – 18407 – Change maximum repeatable credit from 9 to 12
10. **PHI 7979** – 18408 – Change variable credit from 1-12 to 1-6 and the maximum repeatable credit from unlimited to 12
11. **SPM 5206** – 18323 – Transfer of course ownership from APK to Sport Management
12. **SPM 5309** – 18324 – Transfer of course ownership from APK to Sport Management
13. **SPM 5506** – 18326 – Transfer of course ownership from APK to Sport Management
14. **SPM 6036** – 18327 – Transfer of course ownership from APK to Sport Management
15. **SPM 6106** – 18328 – Transfer of course ownership from APK to Sport Management
16. **SPM 6158** – 18329 – Transfer of course ownership from APK to Sport Management
17. **SPM 6726** – 18330 – Transfer of course ownership from APK to Sport Management