

Graduate Council Curriculum Committee
October 23, 2019
2:30 p.m., HPA1 room 304

Agenda

1. Welcome and call to order
2. Review of minutes from October 9, 2019
3. General business
4. Program and Course proposals
5. Adjournment

Members and Administrators of the Graduate Council Curriculum Committee

Patricia Bockelman, Chair, College of Graduate Studies
Terrie Sypolt, Vice Chair, University Libraries
Elsie Olan, College of Community Innovation and Education
Andre Gesquiere, College of Sciences
Sonia Arellano, College of Arts and Humanities
Art Weeks, College of Engineering and Computer Science
Jihe (Jackie) Zhao, College of Medicine
Diane Andrews, College of Nursing
Axel Schülzgen, College of Optics and Photonics
Olga Molina, College of Health Professions and Sciences
Alex Rubenstein, College of Business Administration
Wei Wei, Rosen College of Hospitality Management
Shemeca Smith, Graduate Student Association
Tosha Dupras, College of Sciences, Administrator
Joellen Edwards, College of Nursing, Administrator
Ali Gordon, College of Engineering and Computer Science, Administrator
David Hagan, College of Optics and Photonics, Administrator
Lynn Hepner, College of Arts and Humanities, Administrator
Devon Jensen, College of Graduate Studies, Administrator
Glenn Lambie, College of Community Innovation and Education, Administrator
Saleh Naser, College of Medicine, Administrator
Linda Rosa-Lugo, College of Health Professions and Sciences, Administrator
Sevil Sonmez, College of Business Administration, Administrator
Alan Fyall, Rosen College of Hospitality Management, Administrator

Graduate Council Curriculum Committee
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1. College of Business Administration

College of Business Administration course deletion

1. ECO 6418 Economic Concepts with Math Applications
 - Course not taught in 10 yrs, removed from MBA curriculum

2. College of Health Professions and Sciences

College of Health Professions and Sciences course revision

1. ATR 6118 Acute Care in Athletic Training Practice II
 - Revision to grading scale- S/US revised to ABCDF

3. College of Graduate Studies

College of Graduate Studies course additions

1. IDS 6669 Interdisciplinary Approaches to Research
2. IDS 6938 Interdisciplinary Approaches to Research (special topic version of #1)

4. College of Sciences

College of Sciences program revisions

1. Integrative and Conservation Biology PhD, Conservation Biology Track
 - Revision to Program Name- from Conservation Biology to Integrative and Conservation Biology. Track name staying to same.
2. Integrative and Conservation Biology PhD, Integrative Biology Track
 - Revision to Program Name- from Conservation Biology to Integrative and Conservation Biology. Track name staying to same.
3. Integrative and Conservation Biology PhD
 - Revision to Program Name- from Conservation Biology to Integrative and Conservation Biology. No CIP code change.

College of Sciences course additions

1. BSC 5415 Sensory Ecology (split level course)
2. PCB 6044 Ecological Modeling

College of Sciences course revisions

1. CHS 5596 The Forensic Expert in the Courtroom
 - Revision to prerequisites, change to term offered from Even Spring to Even & Odd Spring (every spring)
2. CHS 6535 Forensic Molecular Biology
 - Revision to term offered from Fall to Odd Fall
3. CHS 6535L Forensic Analysis of Biological Materials
 - Revision to term offered from Occasional to Even Spring
4. CHS 6536 Population Genetics and Genetic Data
 - Revision to term offered from Fall to Even Fall

GCCC Agenda 10-23-19

Committee Graduate Curriculum Committee

Notes



Total Proposals 14

College of Business Administration - ECO 6418 Economic Concepts with Math Applications

2020-2021 Graduate Course Deletion

General Catalog Information

Read before you begin

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner.

Proposal Type:*


Grad Course Deletion

College:*

College of Business Administration

**Unit / Department
/ College:***

Department of Economics

IMPORT COURSE NOW! Please use the Import feature to import the course information from the Catalog by clicking  in the top left corner of the form. Do **not** type the course prefix and code.

Prefix:*

ECO

Code:* 6418

ECU

Course Title:* Economic Concepts with Math Applications

Full Title:* ECO 6418 Economic Concepts with Math Applications

Course Description:* Business-based overview of microeconomic price and output determination through analysis of different types of markets with calculus. Algebraic formulation of macro economy, with emphasis on measuring economic activity, determination of macro equilibrium and forecasting using appropriate mathematical models for business decisions.

Credit Hours: 3

Class Hours: 3

Lab and Field Work Hours: 0

Contact Hours: 3

Prerequisite(s): Admission to CBA master's program.

Corequisite(s):

Graded S/U? Yes No

Split-Level Class: Yes No

List undergraduate split-level course:

Term of Offering

When was the course offered? Odd Fall Even Fall Odd Spring Even Spring Odd Summer
 Even Summer Every Semester Occasional

Utilization of Course

The course was a: Required Course Elective Course

Justification for Course Deletion

If this course is required in any UCF program or is a prerequisite for any UCF course, attach evidence of discussions you have had with impacted programs/departments/schools.

Run an Impact Report by clicking  in the top left corner of the form and answer below according to the results.

Is this course a Yes No

required course for graduation or YES NO

prerequisite for another course?

If yes, have all relevant units been informed of the deletion? Yes No

If not, explain:

Notes:

Attachment

Supporting documents from impacted units of the deletion* Yes No

Administration Use Only

Catalog Ownership:

Course OID 57429

Course Type

Status Active-Visible Inactive-Hidden

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID 044079

Close Window

Impact Report for ECO 6418

Source: 2020-2021 Graduate Catalog (WORKING COPY)



Full Course Title ECO 6418 - Economic Concepts with Math Applications

College of Health Professions and Sciences - Grad Course Revision - Acute Care in Athletic Training Practice II

2020-2021 Graduate Course Revision

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after the proposal is launched.**

Course revisions must be accompanied by a course syllabus and rationale. Departments must also submit an electronic syllabus to the college curriculum person.

Proposal Type:*


Grad Course Revision

College:*

College of Health Professions and Sciences

Unit / Department
/ College:*

School of Kinesiology and Physical Therapy

IMPORT COURSE NOW! Please use the Import feature to import the course information from the Catalog by clicking  in the top left corner of the form. Do **not** type the course prefix and code.

Prefix:*

ATR

Code:* 6118

Course Title:* Acute Care in Athletic Training Practice II

30 Character
Abbreviation:* Acute Care in AT Practice II


Full Title:* Acute Care in Athletic Training Practice II

Course Instructor Gual
(Must be Approved)

**Graduate
Faculty/Scholars):**

Department Chair 0211
Phone Number:*

Dept Chair Email* jeffrey.stout@ucf.edu

Complete the remaining required fields and LAUNCH this proposal by clicking  in the top left corner! Do not begin revisions until **after** launch. Course revisions before launch will not be tracked.

Course Description:* Review, update and practice emergency preparedness and the evaluation and management of acute conditions. This course will be entirely scenario based.

Prerequisite(s):

Corequisite(s):

Does this proposal include revisions to prerequisites?* Yes No

Grading Scheme:

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is for information only.

For further review, please see the SACSCOC

definition: <http://www.sacscoc.org/pdf/081705/Credit%20Hours.pdf>

Credit Hours:* 1

Instruction Time:* 0

Lab/Studio/Field
Work Hours:* 1

Out-of-Class
Hours:* 0

Total Engagement
Hours:* 1

NOTE: For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated. Also indicate who approves content before a course is repeated.

Repeat for credit? Yes No

If yes, indicate the degree program name and the total times the course may repeated.

If the course you are revising is a split-level class, please note this revision form will only impact the graduate side of the course. The undergraduate component of the course should be revised through the Undergraduate Curriculum Committee. As a reminder, the graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor.

Split-Level Class:* Yes No

List undergraduate split-level course:

Term of Offering

When will the course be offered? Odd Fall Even Fall Odd Spring Even Spring Odd Summer
 Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as: Required Course Elective Course

Justification for Course Revision

What is the rationale for

The only change is to the grading scale. It is currently listed as S/US and we would like to change it to ABC.

revising this course?*

What grad programs/tracks require or recommend this course for graduation?

If not a major requirement, what will be the source of students?

What is the estimated annual enrollment?

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail discussion you have had.

Detail Discussion

Course Syllabus Policy

The University of Central of Florida has established guidelines as it relates to the form and structure of all course syllabi. An effective syllabus provides an overview of the purpose of a course, outlines course requirements, and defines expectations for student performance. Faculty members are responsible for developing course content and selecting pedagogical approaches for their courses. Leveraging this policy to develop them will provide a consistent approach for presenting essential information that supports learning and ensures that UCF is in compliance with the standards set forth by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and other accrediting bodies.

To this end, each syllabus should include the following required elements:

Information from the official Schedule of Classes

Instructor and/or GTA contact information

Explicit, public description of the course

Student learning outcomes

Sequence of course activity

Assessment and grading procedures

Course Materials and Resources

Core policy statements

Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities


Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy* I have aligned this syllabus per the UCF syllabus policy.

Attachment List

Please attach any required files by navigating to the Proposal Toolbox and clicking  in the top right corner.

Check I have completed all relevant parts of the form.

Attached I have attached a course syllabus and rationale.

Administration Use Only

Catalog Ownership:

Course OID

Course Type

Status Active-Visible Inactive-Hidden

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID

UNIVERSITY OF CENTRAL FLORIDA
Athletic Training Program

- COURSE:** ATR 6118L, Acute Care in Athletic Training Practice II
Spring A (8 Week Session) Semester 6
Meets: 2 hour/week for 1/week
- CREDITS:** 1 (0,1)
- INSTRUCTOR:** Carlos J Gual, MS, LAT, ATC
Carlos.gual@ucf.edu
- OFFICE HOURS:**
- REQUIRED TEXT:** *Emergency Response Management for Athletic Trainers, 2nd Ed.*
by Michael Miller and David Berry (ISBN : 9781496302304)
- REQUIRED READINGS:** NATA Position Statement: Emergency Planning in Athletics
- NATA Position Statement: Acute Management of the cervical spine injured athlete
- NATA Position Statement: Head Down Contact and Spearing in Tackle Football
- NATA Position Statement: Management of asthma in athletes
- NATA Position Statement: Management of sport concussion (2014)
- NATA Position Statement: Management of Type 1 Diabetes Mellitus
- NATA Position Statement: Lightning Safety in Athletics
- NATA Position Statement: Exertional heat illnesses (2015)
- NATA Position Statement: Preventing and Managing of Sport-Related Dental and Oral Injuries
- NATA Position Statement: Management of Acute Skin Trauma
- NATA Position Statement: Environmental Cold Injuries

COURSE DESCRIPTION: Review, update and practice emergency preparedness and the evaluation and management of acute conditions. This course will be primarily scenario/lab based.

COURSE OBJECTIVES:

1. Students will be able to compare and contrast the role of all members of the emergency medical services team. (*Assessment: exams/ quizzes*)
2. Students will design emergency scenarios that outline the proper assessment and management procedures of emergent injuries/illnesses. (*Assessment: Active learning project*)
3. Students will appraise their peers' abilities to evaluate and manage emergent injuries/illnesses. (*Assessment: Active learning project*)
4. Students will be able to develop and implement a comprehensive emergency action plan. (*Assessment: Active learning project*)

5. Students will be able to demonstrate how to perform a scene size up, primary assessment, secondary assessment and an on-going assessment. Additionally they will be able to interpret their findings. (*Assessment: Active learning project/ exam/ quizzes*)
6. Students will be able to demonstrate how to properly evaluate patients with emergent respiratory, cardiac, neurological, bone, joint, and/or soft tissue injuries/conditions. (*Assessment: In-Class Assignments/ exams/ quizzes*)
7. Students will be able to demonstrate how to properly manage/treat patients with emergent respiratory, cardiac, neurological, bone, joint, and/or soft tissue injuries/conditions (*Assessment: In-Class Assignments/ exams/ quizzes*)
8. Students will be able to select, fit, and remove protective equipment to minimize the risk of injury (*Assessment: In-Class Assignments/ exams/ quizzes*)

2020 PROFESSIONAL KNOWLEDGE STANDARDS

1. **Standard 66**- Practice health care in a manner that is compliant with the BOC Standards of Professional Practice and applicable institutional/organizational, local, state, and federal laws, regulations, rules, and guidelines. Applicable laws and regulations include (but are not limited to) the following:
 - ~~a. Requirements for physician direction and collaboration~~
 - ~~b. Mandatory reporting obligations~~
 - ~~c. Health Insurance Portability and Accountability Act (HIPAA)~~
 - ~~d. Family Education Rights and Privacy Act (FERPA)~~
 - e. Universal Precautions/OSHA Bloodborne Pathogen Standards
 - f. Regulations pertaining to over-the-counter and prescription medications
2. **Standard 69** - Develop a care plan for each patient. The care plan includes (but is not limited to) the following
 - a. Assessment of the patient on an on-going basis and adjustment of care accordingly
 - b. Referral when wanted
3. **Standard 70** - Evaluate and manage patient(s) with acute conditions including triaging conditions that are life threatening or otherwise emergent. These conditions include (but are not limited to) the following conditions:
 - a. Cardiac compromise (including emergency cardiac care, supplemental oxygen, suction, adjunct airways, nitroglycerine, low dose aspirin)
 - b. Respiratory conditions (including use of pulse oximetry, adjunct airways, supplemental oxygen, spirometry, meter-dosed inhalers, nebulizers, bronchodilators)
 - c. Conditions related to the environment: lightning, cold, heat (including use of rectal thermometry)
 - d. Cervical spine compromise
 - e. Traumatic brain injury
 - f. Internal and external hemorrhage (including use of a tourniquet and hemostatic agents)
 - g. Fractures and dislocations (including reduction of dislocation)
 - h. Anaphylaxis (including administering epinephrine using automated injection device)
 - i. Exertional sickling, rhabdomyolysis, and hyponatremia
 - j. Diabetes (including use of glucometer, administering glucagon, insulin)
 - k. Drug overdose (including administration of rescue medications such as naloxone)
 - l. Wounds (including care and closure)
 - ~~m. Testicular injury~~
 - ~~n. Other musculoskeletal injuries~~
4. **Standard 71** - Perform an examination to formulate a diagnosis and plan of care for patients with health conditions commonly seen in athletic training practice This exam includes the following:
 - a. Obtaining a medical history from patient or other individual.
 - b. Identification of comorbidities and patients with complex medical conditions
 - c. Assessment of function (including gait).

- d. Selecting and using tests and measures that assess the following, as relevant to the patient's clinical presentation:
 - i. Cardiovascular system (including auscultation)
 - ii. Endocrine system
 - iii. Eyes, ears, nose, throat, mouth, and teeth
 - iv. Gastrointestinal system
 - v. Genitourinary system
 - vi. Integumentary system
 - vii. Mental status
 - viii. Musculoskeletal system
 - ix. Neurological system
 - x. Pain level
 - xi. Reproductive system
 - xii. Respiratory system (including auscultation)
 - xiii. Specific functional tasks
 - e. Evaluation of all results to determine a plan of care, including referral when to the appropriate provider when indicated.
5. **Standard 74** - Educate patients regarding appropriate pharmacological agents for the management of their condition, including indications, contraindications, dosing, interactions, and adverse reactions.
 6. **Standard 75** - Administer medications or other therapeutic agents by the appropriate route of administration upon the order of a physician or other provider with legal prescribing authority.
 7. **Standard 76** - Evaluate and treat a patient who has sustained a concussion or other brain injury, with consideration of established guidelines:
 - a. Performance of a comprehensive examination designed to recognize concussion or other brain injury, including (but not limited to) neurocognitive evaluation, assessment of the vestibular and vision systems, cervical spine involvement, mental health status, sleep assessment, exertional testing, nutritional status, clinical interview
 - b. Re-examination of the patient on an on-going basis.
 - c. Recognition of an atypical response to brain injury
 - d. Implementation of a plan of care (addressing vestibular and oculomotor disturbance, cervical spine pain, headache, vision, psychological needs, nutrition, sleep disturbance, exercise, academic and behavioral accommodations, and risk reduction.)
 - e. Return of the patient to activity/participation
 - f. Referral to the appropriate provider when indicated
 8. **Standard 78** - Select, fabricate, and/or customize prophylactic, assistive, and restrictive devices, materials, and techniques for incorporation into the plan of care, including the following: (PHP-3, PHP-21, PHP-23, CE-4, T116, CIP-2)
 - a. Durable medical equipment
 - b. Orthotic devices
 - c. Taping, splinting, protective padding, and casting
 9. **Standard 86** - ~~Select, fit~~, and remove protective equipment to minimize the risk of injury or re-injury (5th Edition Competencies PHP-3, PHP-20, PHP-22, CIP-2)
 10. **Standard 92** - ~~Develop~~, implement, and ~~revise~~ policies that pertain to prevention, preparedness, and response to medical emergencies and other critical incidents. (5th Edition Competencies AC-2, AC-3, HA21, CIP-3)

COURSE EVALUATION:

This course is graded upon the successful demonstration of understanding evidence based theory and application of therapeutic modalities. Spelling, grammar, and punctuation are graded. Examination questions include, but are not limited to, multiple choice, short answer, essay, and true and false questions. The final examination is cumulative.

Final Examination	15%
Quizzes/Assignments	35%
Active Learning Project	35%
Attendance/Lateness/Participation	15%

Any disagreement regarding grades should be presented to the instructor in writing. The request will be evaluated and a response will be returned, in writing, in a timely manner.

GRADING SCALE:

A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
D	65-72
F	< 65

ATTENDANCE POLICY:

All students in the Athletic Training Program are expected to attend all classes, labs and presentations during the scheduled class hours. In some instances, there will be credit applied to attendance. Any student who knows that they will be unable to attend a class due to illness or personal reason is expected to contact the instructor via phone or email **prior to** class meeting time.

The instructor has the discretion to determine what is considered an excused or unexcused absence. Assignments may not be made up unless the absence was excused and, if possible, excused in advance. Any student who is absent from class is responsible for attaining the material taught that day. It is not the instructor's responsibility to provide any missed material or remind a student that they missed an assignment, exam or quiz.

Excused absences: Examples of excused absences include a death in the family, illness, interview, travel with teams, or unexpected car trouble. These must be documented in order to be considered excused. In the case of an excused absence which was known in advance, the student is expected to turn the work in **ON TIME** (through a classmate or in person) unless different arrangements were made with the instructor. In the case of an unexpected excused absence, missed work is expected to be turned in at the start of the next class meeting.

Unexcused absences: Examples of unexcused absences are traffic, work, vacation, etc. **Missed quizzes and exams may NOT be made up UNLESS there is documented evidence of an excused absence.**

All students are expected to prepare for labs with proper attire and necessary lab equipment. When a guest speaker is scheduled, business attire is expected as outlined by the instructor.

Lateness is a reflection of student character and responsibility. Lateness is strongly discouraged unless extenuating circumstances apply.

LATE WORK POLICY:

All assignments are due at the beginning of class on the date assigned. If it is turned in within the following 24 hours (from the start of class) the grade will be $\leq 75\%$. Anything after the 24 hour period will result in a failing grade (0%) for that assignment.

CLASSROOM TECHNOLOGY:

In the interest of preserving an effective learning environment, as well as part of professional work behaviors in this class, there will be NO use of cell phones in the classroom. Cell phones must be turned off or set to vibrate during class and be out of sight. In order to keep from disturbing others, you must leave the classroom to accept a call when necessary. You may not answer a call or text in the classroom.

Students are permitted to use computers during class for note-taking and access to Webcourses or course materials only. Those using computers during class for work not related to that class will result in

the student being asked to leave class and receive a grade of "0" for attendance. The use of technology will only be allowed when it is required for research during an in-class assignment.

Photos or video may not be taken in class without prior permission from the instructor.

Disregard for these guidelines will result in the student being asked to leave class and receive a grade of "0" for attendance.

Academic Integrity

Students should familiarize themselves with UCF's Rules of Conduct at <http://osc.sdes.ucf.edu/process/roc>. According to Section 1, "Academic Misconduct," students are prohibited from engaging in:

- Unauthorized assistance: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
- Communication to another through written, visual, electronic, or oral means: The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.
- Commercial Use of Academic Material: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
- Falsifying or misrepresenting the student's own academic work.
- Plagiarism: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
- Multiple Submissions: Submitting the same academic work for credit more than once without the express written permission of the instructor.
- Helping another violate academic behavior standards.

For more information about Academic Integrity, consult the International Center for Academic Integrity <http://academicintegrity.org>.

For more information about plagiarism and misuse of sources, see "Defining and Avoiding Plagiarism: The WPA Statement on Best Practices" <http://wpacouncil.org/node/9>.

Responses to Academic Dishonesty, Plagiarism, or Cheating

Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, The Golden Rule <http://goldenrule.sdes.ucf.edu/docs/goldenrule.pdf>. UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to academic misconduct. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. For more information about the Z Designation, see <http://goldenrule.sdes.ucf.edu/zgrade>.

Course Accessibility Statement

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need disability-related access in this course should contact the professor as soon as possible. Students should also connect with Student Accessibility Services (SAS) <http://sas.sdes.ucf.edu/> (Ferrell Commons 185, sas@ucf.edu, phone 407-823-2371). Through Student Accessibility Services, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential access and accommodations that might be reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student.

Campus Safety Statement

Emergencies on campus are rare, but if one should arise during class, everyone needs to work together. Students should be aware of their surroundings and familiar with some basic safety and security concepts.

- In case of an emergency, dial 911 for assistance.
- Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Students should make a note of the guide's physical location and review the online version at http://emergency.ucf.edu/emergency_guide.html.
- Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
- If there is a medical emergency during class, students may need to access a first-aid kit or AED (Automated External Defibrillator). To learn where those are located, see <http://www.ehs.ucf.edu/AEDlocations-UCF> (click on link from menu on left).
- To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to <https://my.ucf.edu> and logging in. Click on "Student Self Service" located on the left side of the screen in the toolbar, scroll down to the blue "Personal Information" heading on the Student Center screen, click on "UCF Alert", fill out the information, including e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
- Students with special needs related to emergency situations should speak with their instructors outside of class.
- To learn about how to manage an active-shooter situation on campus or elsewhere, consider viewing this video (<https://youtu.be/NIKYajEx4pk>).

UCF Cares

During your UCF career, you may experience challenges including struggles with academics, finances, or your personal well-being. UCF has a multitude of resources available to all students. Please visit UCFCares.com if you are seeking resources and support, or if you are worried about a friend or classmate. Free services and information are included for a variety of student concerns, including but not limited to alcohol use, bias incidents, mental health concerns, and financial challenges. You can also e-mail ucfcares@ucf.edu with questions or for additional assistance. You can reach a UCF Cares staff member between 8 a.m. and 5 p.m. by calling 407-823-5607. If you are in immediate distress, please call Counseling and Psychological Services to speak directly with a counselor 24/7 at 407-823-2811, or please call 911.

Religious Observances

Students must notify their instructor in advance if they intend to miss class for a religious observance. For more information, see the UCF policy at <http://regulations.ucf.edu/chapter5/documents/5.020ReligiousObservancesFINALOct17.pdf>.

Deployed Active Duty Military Students

Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the semester begins and/or after they receive notification of deployment to make related arrangements.

CLASSROOM POLICIES:

Students will have required texts
Taping devices may be used for personal reference
Class area should be cleaned up after use
Students are expected to participate in class discussions

COURSE SCHEDULE:

DATE	CONTENT	TOPICS
Week 1	Review of Emergency Preparedness Respiratory Emergencies Quiz 1	<ul style="list-style-type: none"> • Emergency Action Plans • Pre-Participation Exam. • Policies and Procedures • Injuries/Illnesses • Management Skills
Week 2	Cardiac Emergencies and Profusion Bone and Soft Tissue Emergencies Quiz 2	<ul style="list-style-type: none"> • Injuries/Illnesses • Management Skills • Injuries/Illnesses • Management Skills
Week 3	Head and Cervical Spine Injuries Quiz 3	<ul style="list-style-type: none"> • Injuries/Illnesses • Management Skills • Concussion • Cervical Spine
Week 4	Environmental Related Conditions Emergent General Medical Conditions Quiz 4 Due: Active Learning Project	<ul style="list-style-type: none"> • Injuries/Illnesses • Management Skills • Injuries/Illnesses • Management Skills
Week 5	Lab Scenarios: Respiratory Emergencies Lab Scenarios: Cardiac Emergencies and Profusion	<ul style="list-style-type: none"> • Asthma • Pneumothorax • Respiratory Distress • Cardiac Distress • Cardiac Arrest • Profuse bleeding
Week 6	Lab Scenarios: Bone and Soft Tissue Emergencies Lab Scenarios: Head and Cervical Spine Injuries	<ul style="list-style-type: none"> • Fractures • Dislocations • Wound Management • Concussion • Traumatic Brain Injuries • Spine Injuries
Week 7	Lab Scenarios: Environmental Related Conditions Lab Scenarios: General Medical Conditions	<ul style="list-style-type: none"> • Lightning Strike • Heat Illnesses • Cold Illnesses • Altitude • Diabetic Emergencies • Anaphylaxis • Drug Overdose
Week 8	Final Examination	



Though every effort will be made to adhere to the above policy, content and schedule for this course are subject to change as unforeseen and unavoidable circumstances arise.

College of Graduate Studies - IDS 6669 Interdisciplinary Approaches to Research

2020-2021 Graduate Course New

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner.

Course additions must be accompanied by a course syllabus and rationale. Departments must also submit an electronic syllabus to the college curriculum person.

Please note: If your proposal is for a new split level course, do not complete this form. Please complete the 2020-2021 Graduate Course Split-Level Class form.

Proposal Type:	<input type="text" value="Grad Course Addition"/>
College:*	<input type="text" value="College of Graduate Studies"/>
Unit / Department / College:*	<input type="text" value="Interdisciplinary Studies"/>
For the Full Title box below, please type the course information in the following format: Prefix, Course Number, and Title. For example: IDS 6000 Creative Education	
Full Title:*	IDS 6669 Interdisciplinary Approaches to Research
Course Instructor (Must be Approved Graduate Faculty/Scholars):*	Patricia Carlton, PhD
Department Chair Phone Number:*	407-823-6634
Dept Chair Email*	winston@ucf.edu

Please Note: Originators of New Course Proposals are responsible for designating the new course number. Instructions can be found at <https://graduatecouncil.ucf.edu/curriculum-committee/> The file is Course Number Guide in the Other Resources section of this webpage. New Course forms

THE IS **COURSE NUMBER GUIDE** IN THE **Other Resources** SECTION OF THIS WEBSITE. **NEW COURSE FORMS** submitted with a 5/6/7 XXX designation will not be accepted.

Prefix:*	IDS	Number:*	6669
Course Title:*	Interdisciplinary Approaches to Research		
30 Character Abbreviation:*	Interdisc Approaches Research		
Course Type:*	<input checked="" type="radio"/> Graduate Course <input type="radio"/> Medicine (MD) Course		
Course Description (25 word limit)*	Explores methods/assumptions/challenges experienced in interdisciplinary research; includes practice integrating discipline-based research methods with reflexive/dialogic methods; helps prepare students for capstone project or thesis		
Grading Scheme:*	ABCDF		
Prerequisite(s):	IDS 6308 or CI.		
Corequisite(s):			

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
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Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is for information only.

For further review, please see the SACSCOC

definition: <http://www.sacscoc.org/pdf/081705/Credit%20Hours.pdf>

Credit Hours:* 3

Instruction Time:* 1

**Lab/Studio/Field
Work Hours:*** 0

**Out-of-Class
Hours:*** 2

**Total Engagement
Hours:*** 3

**Variable Credit (0-
99):**

NOTE: In determining if a course is repeatable for credit, the concept is that the content is the same, but the student experience with that content will be different each time it is taken.

For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated.

Repeat for credit?* Yes No

If yes, indicate the total times the course may be used toward completion of the degree.

Term of Offering

When will the course be offered?* Odd Fall Even Fall Odd Spring Even Spring Odd Summer
* Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as:* Required Course Elective Course

Materials and Supply Fee

New Materials and Supply Fees?* Yes No

If yes, also complete the 2020-21 Graduate Materials and Supply Fee form.

Justification for Course Addition

What is the

What is the rationale for adding this course?*

This course will further students' ability to integrate disciplinary research methods in their interdisciplinary capstone projects or thesis research.

What grad programs/tracks require or recommend this course for graduation?

Interdisciplinary MA/MS

What will be the source of students?*

Interdisciplinary MA/MS

What is the estimated annual enrollment?*

15

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail any discussions you have had or attach relevant documents like email threads in the Attachment List Section.

Detail Discussion

No duplications or conflicts are anticipated

Course Syllabus Policy

The University of Central of Florida has established guidelines as it relates to the form and structure of all course syllabi. An effective syllabus provides an overview of the purpose of a course, outlines course requirements, and defines expectations for student performance. Faculty members are responsible for developing course content and selecting pedagogical approaches for their courses. Leveraging this policy to develop them will provide a consistent approach for presenting essential information that supports learning and ensures that UCF is in compliance with the standards set forth by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and other accrediting bodies.

To this end, each syllabus should include the following required elements:

Information from the official Schedule of Classes

Instructor and/or GTA contact information

Explicit, public description of the course

Student learning outcomes

Sequence of course activity

Assessment and grading procedures

Course Materials and Resources

Core policy statements

Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities

Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy* I have aligned this syllabus per the UCF syllabus policy.

Attachment List

Please attach any required files by navigating to the Proposal Toolbox and clicking  in the top right corner.

Check* I have completed all relevant parts of the form.

Attached* I have attached a course syllabus and rationale.

Support from involved units that no duplication exists Duplication support materials attached

Administration Use Only

Catalog Ownership:

Course Type

Status Inactive-Hidden Active-Visible

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID

Interdisciplinary Approaches to Research (IDS 6669)

3 Credit Hours

Patricia Carlton, PhD

“I never knew anybody . . . who found life simple. I think a life, or a time looks simple when you leave out the details.” — Ursula K. Le Guin, *The Birthday of the World and Other Stories*

“We have to abandon the conceit that isolated personal actions are going to solve this crisis. Our policies have to shift.” — Al Gore

Instructor: Patricia L. Carlton, PhD, Faculty Graduate Scholar, University of Central Florida

E-mail: patricia.carlton@ucf.edu; Cell: (352) 408-5261

Class Meeting Times - TBD

Office Hours: E-mail or call to arrange a formal appointment. We may conduct meetings via phone or Skype, or on-campus at a location yet-to-be determined.

Welcome and General Information

Complexity defines our lives. From the apparent simplicity of designing a toaster to the daunting task of launching space travel to Mars, such tasks represent the convergence of multiple “webs of knowledge.”¹ Complex issues and problems also demand the collective intelligence of many minds. Interdisciplinary approaches to research generate communities of knowledge – members of whom are accomplished collaborators, conversant in their respective disciplines and capable of transcending their differences.

In this course, you will advance your understanding of interdisciplinary research. You will work in teams, reviewing case studies and applying disciplined-based research methods for understanding complex problems. You will also examine the epistemologies, assumptions, methods, and ethics used to justify interdisciplinary research. In conclusion, you will write and present an interdisciplinary research proposal that addresses a problem of manifold dimensions and issues.

¹ Sloman, Steven and Fernbach, Phillip. *The Knowledge Illusion: Why We Never Think Alone*. New York: Riverhead Books, 2017.

Course Prerequisites: IDS 6308, Ways of Knowing, or by the consent of instructor.

Course Description: Interdisciplinary Approaches to Research: This course explores various methods, assumptions, and challenges experienced in interdisciplinary research; Includes practice integrating discipline-based research methods with reflexive and dialogic methods; Helps prepare students for their Interdisciplinary Studies Capstone Project or MA/MS thesis.

Course Objectives:

- Students will gain an understanding of methods, assumptions, worldviews and values of disciplined-based research.
- Students will conduct systematic inquiry methods (basic types and methods of research) on a complex issue.
- Students will participate in common interdisciplinary practices, including reflection, communication, collaboration, and recursive testing and evaluation of their research questions.
- Students will advance their graduate-level skills in writing and research.
- Students will be prepared to design and conduct an Interdisciplinary Studies capstone project or master's thesis.

Student Responsibilities:

- Acknowledge complexity in problem solving research
- Be cognizant of your biases and practice continuous self-reflection
- Understand research is an iterative and recursive process, leading to new quests for knowledge
- Conduct systematic methods of inquiry (problem statement, literature review, application of research methods, validating the evidence,
- Understand and implement ethics in research
- Complete assigned readings and activities when due.
- Work collaboratively and ethically with your team.
- Prepare for and participate in all class discussions
- Adhere to the ethical and professional standards expected of graduate students.

Course Texts –

- Booth, W.C., Colomb, G.G., & Williams, J. *The Craft of Research*. Chicago: University of Chicago Press, 2003.
- Rallis, Sharon F. *The Research Journey: Introduction to Inquiry*. New York: The Guilford Press, 2012.

- Repko, Allen, Newell, William H., Szostak, Rick. *Case Studies in Interdisciplinary Research*. Thousand Oaks, CA: Sage Publications Inc., 2012.
- *Additional reading materials may be assigned*

Research Journal – Students will maintain a written research journal that includes reflections on the course readings and activities, proposed discussion questions, notes from team consultations or meetings, and descriptive insights or areas of confusion. These journals will be periodically submitted for review. As the final entry, students will identify a possible topic or issue for their capstone project or thesis. This entry will include a problem statement, literature to be reviewed, outline of research methods, and justification for their approach.

Research Teams – Each student will work in interdisciplinary teams, formed by the third week of class. Team members work collaboratively to determine the complex problem, review the literature, develop research questions, and design an investigative study. The final report will explicate the team’s common ground and research approach to the problem. Research teams will present their proposals on the last day of class.

Case Studies and Course readings – Each student is responsible for critically evaluating a case study of interdisciplinary research. In addition to the course textbook (s), students will critically read academic literature from the perspectives of two or more disciplines. Students will also be encouraged to prepare for their faculty interviews by familiarizing themselves with the interviewees’ research or publications.

Faculty/Research Interview – Each student will interview a researcher/professor from one of the Faculty Clusters. Details regarding the planning, formatting, gathering of data, and transcribing/coding the data will be provided.

Performance Evaluation – Graded assignments and activities include research journal, critical analyses of case studies and assigned readings, class participation, team development of an interdisciplinary research proposal, coded and organized data from surveys and interviews, and group presentations. Your grade will be determined by the following:

- **Participation & professionalism (10%):** Overall promptness and professionalism in attending class and participating in class discussions.
- **Discussions (15%):** Whole class discussions include class readings and case studies. Additionally, you will document collaboration with team regarding project proposals, research methodologies, etc.
- **Research Journal (10%):** Field notes, summaries, questions, and other notes related to course readings, interview, and research proposal
- **Analysis of Case Studies (15%):** Written critical analyses of case studies and related literature.

• **Interdisciplinary Research Proposal (25%):** You and your team will propose an interdisciplinary research project or investigation on a critical and complex issue. The proposal may include data from your interview, as well as relevant literature from case studies and scientific reports. Your proposal should also outline your plans for data collection, data analysis, anticipated outcomes/products, and a rationale for your specific interdisciplinary study.

(Note: Each student is responsible for submitting a research proposal. The final presentation will be conducted by the research team)

• **Faculty/Researcher Interview (15%):** Your proposed outline your ideas for the research project, including your overall research focus and an articulation and justification of proposed methods.

• **Presentation of Interdisciplinary Research Proposal and Rationale (10%):** A brief slide presentation of you and your research team's proposal and findings during our final class meeting.

Grade Scale (%): 94-100 = A 93-90 = A- 89-87 = B+ 86-83 = B 82-80 = B- 79-77 = C+

76-73 = C 72-70 = C- 69-67 = D+ 66-63 = D 62-60 = D- >60 = F

Financial Aid Activity: In order to document that you began this course, please complete the introductory discussion post on our Webcourses site by 5:00 pm on Friday of Week 1. Failure to do so will delay your financial aid.

Academic Honesty: All work must be original by you. Undocumented use of another's words, ideas, images, or other media is plagiarism, as is allowing someone else to write or edit your work for you. If you are caught plagiarizing, depending on the severity, you will fail the assignment. You also risk automatically failing the course, disciplinary referral to the appropriate dean, and possible expulsion from UCF. See the UCF Rules of Conduct (osc.sdes.ucf.edu/process/roc) for further information. Papers written for this course may be submitted to Turnitin.com at my discretion.

Course Accessibility Statement: UCF is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Ferrell Commons, 7F, Room 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor. <https://sas.sdes.ucf.edu>.

Copyright: This course may contain copyright protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine in order to enhance the learning environment. Please do not copy, duplicate, download or

distribute these items. The use of these materials is strictly reserved for this online classroom environment and your use only. All copyright materials are credited to the copyright holder.

Third-Party Software and FERPA: During this course you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these could be required assignments, you need not make any personally identifying information on public site. Do not post or provide any private information about yourself or your classmates. Where appropriate you may use a pseudonym or nickname. Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personally identity-sensitive information. If you have any concerns about this, please contact your instructor.



NOTE: This syllabus may be modified at the discretion of the instructor. Changes will be discussed in class and/or via email.

College of Graduate Studies - IDS 6938 Interdisciplinary Approaches to Research

2020-2021 Graduate Course Special Topics Request

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner.

Special topics course additions must be accompanied by a course syllabus and rationale. Departments must also submit an electronic syllabus to the college curriculum person.

Proposal Type:	Grad Course Addition Special Topic
College:*	College of Graduate Studies
Unit / Department / College:*	Interdisciplinary Studies

For the **Full Title** box below, please type the course information in the following format: Prefix, Course Number, and Title. For example: IDS 6938 Creative Education

Please note: Special Topics codes can only be **5937** or **6938**.

Full Title:* IDS 6938 Interdisciplinary Approaches to Research	
Prefix:* IDS	Code:* 6938
Earliest semester course may be offered:* <input type="radio"/> Fall <input checked="" type="radio"/> Spring <input type="radio"/> Summer	Year:* 2020
Course Title:* ST: Interdisciplinary Approaches to Research	

30 Char. Abbreviation - must begin with ST:* ST: Interdisciplinary Research

Course Instructor (Must be Approved Graduate Faculty/Scholars): Patricia Carlton, Ph.D.

Department Chair Phone Number:* 407-823-6634

Dept Chair Email:* winston@ucf.edu

Course Description (25 word limit)* Explores methods/assumptions/challenges experienced in interdisciplinary research. Includes practice integrating discipline-based research methods with reflexive/dialogic methods; helps prepare students for capstone project or thesis.

Grading Scheme:*

ABCDF

Prerequisite(s): IDS 6308 or CI.

Corequisite(s):

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is

for information only.**Credit Hours:*** 3**Instruction Time:*** 1**Lab/Studio/Field
Work Hours:*** 0**Out-of-Class
Hours:*** 2**Total Engagement
Hours:*** 3**Justification****Why is this course
being offered as a
special topic?***

Regular Interdisciplinary Approaches to Research is being proposed but student interest is high. A Special Topics may allow those students to take the recommended interdisciplinary research methods before the full course is approved.

**What is the source
of students to
enroll in this
course?***

Interdisciplinary MA/MS

**What is the
estimated annual
enrollment?***

15

**Do you plan to
request that this
course become
permanent?*** Yes No

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail any discussions you have had or attach relevant documents like email threads in the Attachment List Section.

Detail Discussion

No conflicts or duplications are anticipated

Course Syllabus Policy

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Check Attached* I have attached a course syllabus.

Support from involved units that no duplication exists Duplication support materials attached

PeopleSoft

Academic Organization

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID

IDS 6938 Special Topics:
Interdisciplinary Approaches to Research

3 Credit Hours

Patricia Carlton, PhD

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E-mail: patricia.carlton@ucf.edu; Cell: (352) 408-5261

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present an interdisciplinary research proposal that addresses a problem of manifold dimensions and issues.

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- Acknowledge complexity in problem solving research
- Be cognizant of your biases and practice continuous self-reflection
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- Complete assigned readings and activities when due.
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Course Texts –

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- *Additional reading materials may be assigned*

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(Note: Each student is responsible for submitting a research proposal. The final presentation will be conducted by the research team)

- **Faculty/Researcher Interview (15%):** Your proposed outline your ideas for the research project, including your overall research focus and an articulation and justification of proposed methods.

- **Presentation of Interdisciplinary Research Proposal and Rationale (10%):** A brief slide presentation of you and your research team's proposal and findings during our final class meeting.

Grade Scale (%): 94-100 = A 93-90 = A- 89-87 = B+ 86-83 = B 82-80 = B- 79-77 = C+

76-73 = C 72-70 = C- 69-67 = D+ 66-63 = D 62-60 = D- >60 = F

Financial Aid Activity: In order to document that you began this course, please complete the introductory discussion post on our Webcourses site by 5:00 pm on Friday of Week 1. Failure to do so will delay your financial aid.

Academic Honesty: All work must be original by you. Undocumented use of another's words, ideas, images, or other media is plagiarism, as is allowing someone else to write or edit your work for you. If you are caught plagiarizing, depending on the severity, you will fail the assignment. You also risk automatically failing the course, disciplinary referral to the appropriate dean, and possible expulsion from UCF. See the UCF Rules of Conduct (osc.sdes.ucf.edu/process/roc) for further information. Papers written for this course may be submitted to Turnitin.com at my discretion.

Course Accessibility Statement: UCF is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Ferrell Commons, 7F, Room 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor. <https://sas.sdes.ucf.edu>.

Copyright: This course may contain copyright protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine

in order to enhance the learning environment. Please do not copy, duplicate, download or distribute these items. The use of these materials is strictly reserved for this online classroom environment and your use only. All copyright materials are credited to the copyright holder.

Third-Party Software and FERPA: During this course you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these could be required assignments, you need not make any personally identifying information on public site. Do not post or provide any private information about yourself or your classmates. Where appropriate you may use a pseudonym or nickname. Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personally identity-sensitive information. If you have any concerns about this, please contact your instructor.

NOTE: This syllabus may be modified at the discretion of the instructor. Changes will be discussed in class and/or via email.

Department of Physics - Fee continuation - PHY 5817L Building Physics Apparatus

2020-2021 Graduate Materials and Supplies Fee

General Catalog Information

Policy

The BOG statute permitting Materials and Supplies Fees (M&S Fee) specifies that these fees are “to offset the cost of materials or supplies that are consumed in the course of the student’s instructional activities, excluding the cost of equipment replacement, repairs, or maintenance.” (1009.24 {14}{i})

Approval Process

To administer such materials and supplies fees that are approved by the faculty, the following policies are in effect. All requests for additions, changes, or deletions shall be submitted by the fall semester date of the year prior to which the fees intend to be implemented. The approval process is as follows:

Departments propose a new or modified fee. The Provost, at the recommendation of the Vice Provost for Teaching and Learning, is the approving authority. Originating departments proposing a new or reduction of an M&S Fee must complete the “Graduate Materials and Supplies Fee Request” Proposal through Curriculog, for routing through the following for approval. Authorities at each level may approve, reject, or refer to originator for corrections:

Department Chair
College Dean
Graduate Council Curriculum Committee (GCCC)
Dean of Graduate Studies
Provost

Each proposal for a new or increased M&S Fee must include the following:

A justification for the imposition of fee for students enrolled in the specified course
Explanation of how expenditures will support student-learning outcomes.
Evidence outlining efforts to obtain alternative funding from the department, college, external sources, and other allowed fees, whether successful or unsuccessful. If there are existing M&S Fees, explain why these are insufficient and why an M&S Fees is also needed.
Detailed proposal budget information indicating consumable materials and/or supplies by category and line item.

Proposals to terminate fees in their entirety require only a memo from the department

and approval by the college dean to be considered by GCCC through Curriculog.

All fee changes will go into effect the Fall semester of the year for which the fee is approved.

The same fee will be charged for each semester: Fall, Spring, and Summer. Fees will be in effect until any change in the justification for the fee, initiating a request from the unit for an addition or subtraction from the fee.

Notice of the Provost's approval of fee requests will be sent to the department, Registrar's Office, Student Accounts office and Division of Finance and Accounting.

The College of Undergraduate Studies will maintain the listings of M&S Fees for undergraduate courses. The College of Graduate Studies will maintain for graduate courses.

Accountability:

Department Level: The department chair, or designated representative, for each department will produce a staggered five-year analysis report on each existing M&S Fee, including the original purposes of the fees, explanation of the extent to which they were used for these ends, beginning and ending cash balances, actual expenditures, plans for carry forward funds (if applicable), and consideration of future needs. The dean will provide these reports to the Vice Provost for Teaching and Learning no later than the first day of classes in the fall semester. Each dean will at that time forecast pending departmental proposals for new fees, increases or decreases in existing fees, or terminations.

Course and Program Fee Review Committee (CPFRC): The Vice Provost for Teaching and Learning will appoint and charge this committee, comprised of one department chair, one associate dean, the chair of the UPCC, the chair of the UCRC, the chair of GCCC, and a representative from UCF Finance and Accounting. The CPFRC will review all course and program fees and provide recommendations for continuation, modification, or termination. This committee should meet during the fall semester upon receipt of college reports from the previous fiscal year.

University Audit: Programs agree to submit to financial audits and advisory reviews of expenditures, as determined by the Division of Teaching and Learning, with the college's responsibility to correct any inadmissible expenditures and to implement plans for spending of carry forward funds.

References

SUS, Florida, Board of Governors Regulation 7.003, "Fees, Fines, and Penalties,"

<http://www.fibog.edu/board/regulations/regulations.php>

Proposal Type (for agenda purposes)*

Fee continuation

Type of Request: Fee Addition (new fee)

Fee Revision to Increase Fee

- Fee Revision to Decrease Fee
- Fee Deletion
- Fee Continuation (same amount)

This form is to be used for request to add, revise, continue, or delete Materials and Supplies Fees (M&S Fees). All requests for the next graduate catalog must be submitted to Graduate Curriculum Committee. Approved fees become effective in the following Fall semester.

Request Routing: 1) Department Chair to College Dean's Office; 2) Dean's Office approval; 3) graduate committee reviews and College of Graduate Studies submits to Provost; 4) A list of approved requests will be forwarded to the Provost for final approval.

M&S Fees are associated with permanent, individual courses (not special topics). Florida statutes specify this fee is to "offset the cost of materials or supplies that are consumed in the course of the student's instructional activities, **excluding the cost of equipment replacement, repairs, and maintenance.**" Thus, they must be used for expendable or consumable items that are above and beyond the normal M&S Fees used in classroom instruction (labor course supplies, Handouts, examination forms) and cannot be used for personnel services or equipment purchase/rental. Maximum amount is \$70.00.

Date Submitted: 9/18/19

College /
Department: * Department of Physics

Course Prefix: * PHY

Course Number: * 5817L

Course Title: * PHY 5817L Building Physics Apparatus

For the **Full Title** box below, please type the course information in the following format: Prefix, Course Number, and Title. For example: IDS 6000 Creative Education

Full Course Title: * PHY 5817L Building Physics Apparatus

Fee Information

One course per form. Round fee to the nearest dollar.

Current Fee Per
Student: \$45

Requested Fee
Per Student: \$45

Estimated Annual
Enrollment: 8

Revenue from
Enrollment: \$360

Provide
justification for
the request:

Consumable materials are needed for students to process them using bandsaw, lathe, and milling machine to learn the proper and safe operation of these machines.

Attach a **Plan of Study** for students in the program showing all fees to be charged to the student to

Attach a Plan of Study for students in the program showing all fees to be charged to the student to complete the program. The Plan of Study must include all courses and the associated Materials and Supplies Fees and the current Equipment fee (if applicable). For a template, please visit the Graduate Council website at: <https://graduatecouncil.ucf.edu/curriculum-committee/> then click on the link for Fee Request- Sample Plan of Study.

Provide detailed cost information (per student) about the expenses for which the fee is to be assessed.

Number of Units 1	Estimated Cost \$15
--------------------------	----------------------------

Description Brass stock materials
--

Number of Units 1	Estimated Cost \$20
--------------------------	----------------------------

Description Copper stock materials

Number of Units 1	Estimated Cost \$10
--------------------------	----------------------------

Description Steel stock materials
--

Number of Units	Estimated Cost
------------------------	-----------------------

Description

Number of Units	Estimated Cost
------------------------	-----------------------

Description

Total Cost of Items Per Student: \$45
--

Payment Details

Account Number to Deposit Fees: 24080803

Item Type: Lab supplies

Contact Person: Leida Vera Nater

Phone Number: 407-823-5207

Attachments

Attached* I have attached a Plan of Study showing all program fees.

Administrative use only

Catalog Course Description	Hands-on shop course. Focus will be machine shop practice with possible extension to printed circuit boards and glass work.
---------------------------------------	---



[Search for Classes](#)

Class Detail

PHY 5817L - A001 Building Physics Apparatus
 University of Central Florida | Summer 2019 | Laboratory

Class Details			
Status	Closed <input type="checkbox"/>	Course ID	043601
Class Number	56032	Offer Nbr	1
Session	A - First Six Weeks	Career	Graduate
Units	1 units	Dates	5/13/2019 - 6/21/2019
Instruction Mode	Face to Face Instruction (P)	Grading	ABCDF
Class Components	Laboratory Required	Location	Main Campus (Orlando)
		Campus	Main Campus

Meeting Information			
Days & Times	Room	Instructor	Meeting Dates
MoTuWeTh 9:00AM - 10:50AM	TBA	Robert Peale	05/13/2019 - 06/21/2019

Class Availability			
Class Capacity	8	Wait List Capacity	0
Enrollment Total	8	Wait List Total	0
Available Seats	0		

Notes
Class Notes This course will meet in the physics machine shop.

Description
"PHY 5817L COS-PHYS 1(0,3) Building Physics Apparatus: PR: Graduate standing or senior standing and C.I. Hands-on shop course. Focus will be machine shop practice with possible extension to printed circuit boards and glass work. Occasional. M&S fee \$45.00"

Textbook/Other Materials
Textbook Assignment Pending (assignments not shown to students)

[View Search Results](#)

College of Sciences - Integrative and Conservation Biology PhD, Conservation Biology Track

2020-2021 Graduate Program Revision/Reactivation

General Catalog Information

This form is to be used to REVISE graduate degree programs, tracks, or certificate programs. If there are tracks being revised or added to a program, one form must be submitted for EACH program and the track(s).

Please refer to the Graduate Council Curriculum Meeting Schedule for submission deadlines.

Select *Program* below.

Program Type:* Program
 Shared Core

Proposal Type:*

Read before you begin

TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.

IMPORT curriculum data from the Catalog by clicking  in the top left corner.

FILL IN all fields required marked with an * after importing data. You will not be able to launch the proposal without completing required fields.

LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after proposal is launched.**


College:*

Unit / Department / College:*

Unit(s) Housing Program:

Type of Action:* Program

- Track
- Certificate

IMPORT PROGRAM NOW! Please use the Import feature to import the program information from the Catalog by clicking  in the top left corner of the form.

Name of program, track and / or certificate:* **Integrative and** Conservation Biology PhD, Conservation Biology Track

Are you revising the name of the program, track, or certificate?* Yes No

Proposed Effective Term / Year:* Fall 2020

If you will be submitting other revision forms for tracks or course actions, please list them here:

Conservation Biology PhD, ~~Conservation Track~~

Conservation Biology PhD, Integrative Track

Is the CIP code being updated? Yes No

If yes, please provide the new CIP code:

Rationale for revision: **The Conservation Biology PhD is currently split into two tracks: Conservation Biology and Integrative Biology. Graduate students and faculty research are equally split among these two tracks/ sub-disciplines of biology. Thus, the coursework and research programs supporting the PhD program are best represented by the title “Integrative and Conservation Biology PhD” and not “Conservation Biology”. Furthermore, the new title is expected to improve the number (and perhaps caliber) of applicants who apply to our program, as it is more representative of 21st century biology.**

Complete the remaining required fields and LAUNCH this proposal! Do not begin revisions until after launch. Program revisions before launch will not be tracked.

Informational Description Chart- this will import.*

College: <u>Sciences</u>	Degree: PHD
Department: <u>Biology</u>	Option: Dissertation
Program Websites: <u>http://biology.cos.ucf.edu/graduate_index.php</u>	


Revise catalog copy here! After you revise courses, click on the Curriculum Schema button below to revise the catalog copy. Please

note: this information is what will flow directly to the graduate catalog.



Any attached documents to this proposal will not be used for catalog purposes.

Follow these steps to propose courses to the revised program curriculum:

Step 1

 There are two options for adding courses: "Add Course" and "Import Course." For courses already in the catalog, click on "Import Course" and find the courses needed. For new classes going through a Curriculog Approval Process click on "Add Course"-- a box will open asking you for the Prefix, Course Number and Course Title.

Step 2

Click on  "View Curriculum Schema." Click on the area/header of the program where you would like to add courses. When you click on "Add Courses" it will bring up the list of courses available from Step 1. Select the courses you wish to add. For removing courses click on the  and proceed.

Prospective Curriculum*

Track Description

The Conservation Biology track in the Conservation Biology PhD program prepares students for independent research and roles within industry, nongovernmental organizations or government sectors combining traditional biological sciences with economics, law, urban/rural planning, politics, communication, philosophy and environmental engineering.

The Conservation Biology track in the Conservation Biology PhD program is intended to provide the academic background necessary to begin work in industry, nongovernmental organizations or government in a leadership role applying cutting-edge principles to problem solving in conservation biology. Students taking this track will be prepared to pursue an academic career.

Curriculum

The Conservation Biology Track in the Conservation Biology PhD program requires 72 credit hours beyond the bachelor's degree, including a minimum of 27 hours of formal course work exclusive of independent study. The formal course work includes 15 credit hours of required core courses and 12 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee (at least 4 of the 12 credit hours must be offered through the Biology Department). The remaining 45

credit hours may consist of additional electives, doctoral dissertation research (PCB 7980), and a maximum of 12 credit hours of combined directed research (PCB 6918, PCB 7919, and PCB 5917) and independent study (PCB 6908). In addition, 15 credit hours of the remaining 45 credit hours must be comprised of doctoral dissertation research (PCB 7980).

A student is required to establish a program of study before the completion of nine credit hours of course work, in conjunction with their dissertation adviser and advisory committee. Students are required to complete a minimum of 12 hours of electives in consultation with their advisory committee. In addition to these selected electives, a student's advisory committee may require the candidate to take any graduate course taught at UCF if deemed appropriate for the student's area of emphasis. Students entering with a master's degree may request up to 30 semester credit hours of previous work be waived toward the requirements for this degree with approval from the advisory committee. Students who transfer 30 credit hours must still take 2 credit hours of Biology Seminar ([BSC 6935](#)) and Professional Development I ([PCB 6095](#)) and II ([PCB 6096](#)). Students may register for dissertation research only after passing the candidacy exam.

Total Credit Hours Required: 72 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses: 15 Credit Hours

PCB 6042 Conservation Biology Theory

PCB 6053C Restoration Ecology

PCB 6466 Methods in Experimental Ecology

BSC 6935 Seminar in Biology

[Right] (2 credit hours, take twice at 1 credit hour each)

PCB 6095 Professional Development in Biology I

PCB 6096 Professional Development in Biology II

Elective Courses: 42 Credit Hours

A minimum of 12 credit hours of formal graduate-level courses from Biology, or other departments, are selected in consultation with the adviser and the dissertation committee. The goal is to tailor the program of study to the individual student's needs while maximizing exposure to a variety of disciplines including, among others, policy, economics,

engineering, chemistry or sociology. The remaining 30 credit hours may include additional electives, dissertation research (PCB 7980),

internship, and a maximum of 12 credit hours of combined independent study (PCB 6908) and directed research (PCB 6918, PCB 7919, and PCB 5917). Professional internship hours can be substituted for directed research.

Dissertation: 15 Credit Hours Minimum

PCB 7980 - Dissertation 15 Credit Hours

Advisory Committee

The Advisory Committee shall consist of a minimum of four members, including the dissertation adviser, with at least three members coming from the graduate faculty in the Biology Department. At least one member will be from a department other than Biology or from outside the university. The chair, or co-chair, must be a member of the program graduate faculty.

Enrollment Requirements

Students are required to register for 9 credit hours in fall and spring and 6 credit hours in summer before their candidacy exam. After being admitted to candidacy, minimum enrollment is 3 credit hours of dissertation research each semester.

Qualifying Examination

The written qualifying examination should be completed within the first two years of the student's program. The exam seeks to cover areas of general knowledge and discipline-specific knowledge within the student's declared track. These questions could be related to the dissertation research proposal or designed to examine general knowledge and reasoning within the field.

The candidate will meet with their advisory committee at least two months prior to the examination to discuss expectations. Committee members must clearly articulate in writing the general areas that may be

examined. Any student failing the examination must repeat the examination within six calendar months of the date of the first

examination and requires a majority vote by committee members to pass the exam. A second failed attempt will result in dismissal from the program.

Candidacy Examination

Each student will be required to generate, organize and orally defend a written proposal outlining their dissertation research to their dissertation advisory committee no later than 12 months after passing the Qualifying Examination. The oral Candidacy Examination will cover all areas within the scope of the student's doctoral program and requires that the student demonstrate knowledge of the theory, literature and research methodologies relevant to the proposed area of research as well as demonstrate an understanding of how their work relates to the field of biology as a whole. After passing the candidacy examination and meeting other requirements, the student will be deemed as having been admitted to candidacy and can register for dissertation hours. Once a student is admitted to candidacy, the focus will be on dissertation research. For most students, the research and writing of the dissertation will take two to three years after advancing to candidacy. During this time, students should remain in close contact with the dissertation adviser and advisory committee and annual progress reports must be filed with the Graduate Program Director.

Candidacy Examination Proposal

A written dissertation proposal, already approved by the adviser, must be submitted to each committee member no later than two weeks prior to the Candidacy Examination. Typically, the proposal will be in the format described below. However, in cases where this format is not appropriate, an alternative format may be used with the approval of the dissertation adviser. The proposal should be approximately 10 to 15 pages in length not including references, single-spaced and typed in 12-point font with one-inch margins on all sides. The use of figures and tables is encouraged. With rare exceptions it is expected that dissertation research will be hypothesis-driven.

Specific Aims: Describe concisely the problem(s) to be addressed and the specific goals of the dissertation research as they relate to the problem(s), including clear statements of hypotheses to be tested.

Background and Significance: Review background literature relevant to the dissertation topic, indicating

clearly where gaps in knowledge exist. Justify the need for the research by explaining its anticipated significance.

Conclude by linking gaps in current knowledge to the proposed specific aims.

Methodology: Outline carefully the study design (observations, experiments, models, statistical analysis, etc.) related to, and the methodology to be used for, each specific aim. Methodologies should be explained in sufficient detail to allow committee members to assess the validity of its use in the study. Potential outcomes and alternative approaches should be discussed.

Literature Cited: References should be indicated in the main body of the proposal wherever appropriate and should follow the format of a peer-reviewed journal in a field of study appropriate to your research. This section can be as long as necessary.

Examination

At least two weeks prior to the examination, an abstract describing the proposed research will be posted in the Biological Sciences Building and circulated by e-mail among faculty and graduate students. The candidate will present the research proposal in a forum open to all faculty, students and visitors. The oral presentation should be approximately 30-45 minutes in length to be followed by a public question-and-answer period. Presentation of preliminary data is neither required nor expected, but should be provided if available and relevant. With the exception of the advisory committee and candidate, all faculty, students and visitors will leave at the conclusion of the public question-and-answer period. The committee will continue the exam in closed session with further questioning. Questions can be directed to any matter relevant to the research proposal and areas of weakness previously identified in the written (qualifying) exam. A majority vote is required to pass the examination; however, no more than one negative vote is permitted. The majority must include the dissertation adviser. Any student failing the examination must repeat the examination within six calendar months of the date of the first examination. A second failed attempt will result in dismissal from the program.

Admission to Candidacy

The following are required to be admitted to candidacy and enroll in dissertation hours:

Program of study submitted and approved

Program of Study Submitted and approved.

Dissertation Committee formed (without external member)

Successful completion of the qualifying exam.

Completion of all coursework (except for dissertation hours)

External member added to Dissertation Committee.

Successful completion of candidacy exam.

Dissertation Defense

The dissertation is expected to represent an original and significant contribution to the discipline. Upon completion and approval of the doctoral dissertation by all appropriate faculty and university offices, the student will make a formal presentation of the research findings in seminar format to the dissertation committee and other university faculty and students who may wish to attend.

The dissertation should be in a format appropriate for publication and should be "tightened" to a readiness for submittal by use of appendixes for nonessential information. The major role of the student's advisory committee is to offer guidance on study design and interpretation of results. A polished draft must be delivered to the advisory committee for review after the student and dissertation adviser have agreed upon editorial changes; this should occur well before the anticipated date of the final defense. Committee members have the right to reject documents that fail to meet these guidelines. Committee members should be given at least two weeks to review the draft before the student attempts to schedule the final defense. The final defense is to be scheduled only after the advisory committee agrees that the dissertation is ready for defense. Committee members should return the corrected dissertation to the student two weeks after receipt and the candidate should check with committee members to ensure they have the time to review the document. If the student delivers the final draft to the committee one month prior to the proposed defense date, that would allow two weeks before the scheduled defense date for the student to make recommended changes.

At least two weeks prior to the defense, an abstract describing the research conducted and conclusions reached will be posted in the Biological Sciences Building, circulated by e-mail among faculty and graduate students, and posted at the College of Graduate Studies Events Calendar. The candidate will present the research in a forum open to all faculty, students, and visitors. The oral presentation should be approximately 45-50 minutes in length to be followed by a question-and-answer period. In the presentation the candidate should focus on background information, describe the research performed, and draw attention to the significance of the conclusions reached. With the exception of the committee and candidate, all faculty, students, and

visitors will leave at the conclusion of the question-and-answer period. The committee will continue the defense and the candidate will answer questions about the subject matter presented and defend the conclusions drawn. The committee will ask questions of the process used and assess the candidate's level of competency with the research topic. A majority vote is required to pass the examination; however, no more than one negative vote is permitted. The majority must include the dissertation adviser.

Student Orientation

An orientation for all incoming students will be scheduled one week prior to each fall semester. The orientation will include tours of the program facilities, a session on registration, university policies and procedures, and expectations of doctoral study. Further, Environmental Health and Safety will present a program on topics such as laboratory safety, chemical and fire safety, biohazard training, and radioisotope handling. Expectations for Graduate Teaching Assistants (GTA) and Graduate Research Assistants (GRA) will be fully covered. In addition, students will be required to participate in the program for GTAs offered by the UCF Faculty Teaching and Learning Center and the College of Sciences. Students are strongly encouraged to attend the university's orientation also, held approximately one week before classes begin in the Fall semester.

Independent Learning

The dissertation satisfies the independent learning experience.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the [Admissions](#) section of the Graduate Catalog. Applicants must [apply online](#). All requested materials must be submitted by the established deadline.

In addition to the [general UCF graduate application requirements](#), applicants to this program must provide:

One official transcript (in a sealed envelope) from each college/university attended.

Official, competitive GRE score taken within the last five years.

Three letters of recommendation.

Résumé.

Statement of research interest and purpose, including a summary of relevant work or research experience.

A computer-based score of 230 (or 89 internet-based score) on the Test of English as a Foreign language (TOEFL) if an applicant is from a country where English is not the official language, or if an applicant's degree is not from an accredited U.S. institution, or if an applicant did not earn a degree in a country where English is the only official language or a university where English is the only official language of instruction. Although we prefer the TOEFL, we will accept IELTS scores of 7.0.

Students entering the graduate program with regular status are normally expected to have completed course work generally required for a bachelor's degree in biology.

Applicants should first identify faculty who match their own research interests, and then contact faculty in advance to inquire about research opportunities in faculty labs and to solicit agreement that a faculty member is interested in serving as the student's dissertation advisor. Applicants to the Ph.D. program who do not have a consenting dissertation advisor within the department faculty will not be accepted into the program. Admission is competitive and based on an overall assessment of the qualifications as submitted and the availability of faculty to serve as dissertation advisor.

Meeting minimum UCF admission criteria does not guarantee program admission. Final admission is based on evaluation of the applicant's abilities, past performance, recommendations, match of this program and faculty expertise to the applicant's career/academic goals, the identification of a dissertation advisor, and the applicant's potential for completing the degree.

Application Deadlines

Students applying for summer or spring admission will be considered on an ad hoc basis.

Conservation Biology	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Feb 1		
International Applicants	Jan 15	Jan 15		
*Applicants who plan to enroll full time in a degree program and who wish to be considered for university fellowships or assistantships should apply by the Fall Priority date.				

Financials

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see the College of Graduate Studies [Funding website](#), which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The [Financial Information](#) section of the Graduate Catalog is another key resource.

Fellowships

Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see [UCF Graduate Fellowships](#), which includes descriptions of university fellowships and what you should do to be considered for a fellowship.

Contact Info

Graduate Program

Kenneth Fedorka PhD

Assistant Professor

kenneth.fedorka@ucf.edu

Telephone: 407-823-6685

BL 401B

Juana Pasco

juana.pasco@ucf.edu

BL301

Graduate Admissions

Anthony Tufano

gradadmissions@ucf.edu

Telephone: 407-823-2766

Millican Hall 230

Online Application

Graduate Admissions

Mailing Address

UCF College of Graduate Studies

Millican Hall 230

PO Box 160112

Orlando, FL 32816-0112

Institution Codes

GRE: 5233

GMAT: RZT-HT-58

TOEFL: 5233

ETS PPI: 5233

Graduate Fellowships

Grad Fellowships

Telephone: 407-823-0127

gradfellowship@ucf.edu

<https://funding.graduate.ucf.edu>

Graduate Financial Aid

UCF Student Financial Assistance

Millican Hall 120

Telephone: 407-823-2827

Appointment Line: 407-823-5285

Fax: 407-823-5241

finaid@ucf.edu

<http://finaid.ucf.edu>

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this revised program, track, or certificate? * Yes No

If yes, state the name of the program or track where students are currently enrolled and attach a list of students if possible: Conservation Biology PhD, Conservation Track

Will students have the option to stay in their existing program, track, or certificate? * Yes No

If yes, how will current students be impacted by this change? ~~Since this~~ This is a simple name change, so no impact will occur to the students.

Future Students

Provide a statement of who is likely to enroll and why. Please state if there is licensure or certification that depends upon this education, etc.

Year 1

Headcount:

SCHs:

Year 2

Headcount:

SCHs:

Year 3

Headcount:

SCHs:

Indicate likely
career or student
outcomes upon
completion:

Please complete the following section on financial support:

(Specify all forms of support – assistantships, fellowships, and tuition remission.)

Year 1

Number of
assistantship
students:

Source of funds:

Number of
fellowship
students (specify
fellowship):

Number of tuition
remissions:

Source of funds:

Year 2

Number of
assistantship
students

Source of funds:

Number of
fellowship
students (specify
fellowship):

Number of tuition
remissions:

Source of funds:

Year 3

Number of
assistantship
students:


Source of funds:

Number of
fellowship
students (specify
fellowship):

Number of tuition
remissions:

Source of funds:

Attachments

Please attach the required files by navigating to the Proposal Toolbox and clicking  in the top right corner of the form.

Faculty List* Attached Not Applicable

Support from involved units that no duplication exists* Attached Not Applicable

Administration Use Only

Catalog Ownership:

Program OID 7133

Program Type

Degree Type

Status* Active-Visible Inactive-Hidden

Patrick	Bohlen
Lisa	Chambers
Geoffrey	Cook
Will	Crampton
Charissa	de Bekker
John	Fauth
Ken	Fedorka
Robert	Fitak
Michelle	Gaither
Eric	Goolsby
Sasha	Hararuk
Eric	Hoffman
David	Jenkins
Josh	King
Kristy	Lewis
Kate	Mansfield
Chase	Mason
	Quintana-
Pedro	Ascencio
Anna	Savage
Barbara	Sharanowski
Laurie	von Kalm
Linda	Walters
John	Weishampel
Graham	Worthy

College of Sciences - Integrative and Conservation Biology PhD, Integrative Biology Track

2020-2021 Graduate Program Revision/Reactivation

General Catalog Information

This form is to be used to REVISE graduate degree programs, tracks, or certificate programs. If there are tracks being revised or added to a program, one form must be submitted for EACH program and the track(s).

Please refer to the Graduate Council Curriculum Meeting Schedule for submission deadlines.

Select *Program* below.

Program Type:* Program
 Shared Core


Proposal Type:*

Read before you begin

TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.

IMPORT curriculum data from the Catalog by clicking  in the top left corner.

FILL IN all fields required marked with an * after importing data. You will not be able to launch the proposal without completing required fields.

LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after proposal is launched.**


College:*

Unit / Department / College:*

Unit(s) Housing Program:

Type of Action:* Program

- Track
- Certificate

IMPORT PROGRAM NOW! Please use the Import feature to import the program information from the Catalog by clicking  in the top left corner of the form.

Name of program, track and / or certificate:* **Integrative and** Conservation Biology PhD, Integrative Biology Track

Are you revising the name of the program, track, or certificate?* Yes No

Proposed Effective Term / Year:* Fall 2020

If you will be submitting other revision forms for tracks or course actions, please list them here:

Conservation Biology PhD, Conservation Track

Conservation Biology PhD, **Integrative Track**

Is the CIP code being updated?

Activity Log

Kenneth Fedorka

+ No

Yes No

If yes, please provide the new CIP code:

Rationale for revision:

The Conservation Biology PhD is currently split into two tracks: Conservation Biology and Integrative Biology. Graduate students and faculty research are equally split among these two tracks/ sub-disciplines of biology. Thus, the coursework and research programs supporting the PhD program are best represented by the title "Integrative and Conservation Biology PhD" and not "Conservation Biology". Furthermore, the new title is expected to improve the number (and perhaps caliber) of applicants who apply to our program, as it is more representative of 21st century biology.

Complete the remaining required fields and LAUNCH this proposal! Do not begin revisions until **after** launch. Program revisions before launch will not be tracked.


Informational Description Chart- this will import.*

College: <u>Sciences</u>	Degree: PHD
Department: <u>Biology</u>	Option: Dissertation
Program Websites: <u>http://biology.cos.ucf.edu/graduate_index.php</u>	



Revise catalog copy here! After you revise courses, click on the Curriculum Schema button below to revise the catalog copy. Please note: this information is what will flow directly to the graduate catalog. Any attached documents to this proposal will not be used for catalog purposes.

Follow these steps to propose courses to the revised program curriculum:

Step 1

 There are two options for adding courses: "Add Course" and "Import Course." For courses already in the catalog, click on "Import Course" and find the courses needed. For new classes going through a Curriculog Approval Process click on "Add Course"-- a box will open asking you for the Prefix, Course Number and Course Title.

Step 2

Click on  "View Curriculum Schema." Click on the area/header of the program where you would like to add courses. When you click on "Add Courses" it will bring up the list of courses available from Step 1. Select the courses you wish to add. For removing courses click on the  and proceed.

Prospective Curriculum*

Track Description

The Integrative Biology track in the Conservation Biology PhD program prepares students for independent research and roles within industry, nongovernmental organizations or government sectors combining traditional biological sciences with economics, law, urban/rural planning, politics, communication, philosophy and environmental engineering.

The Integrative Biology track in the Conservation Biology PhD program embraces applied and basic research concerning ecological questions to address current concerns in the area of conservation biology. Students taking this track will be prepared to pursue an academic career.

Curriculum

The Integrative Biology Track requires 72 credit hours beyond the bachelor's degree, including a minimum of 27 hours of formal course work exclusive of independent study. The formal coursework includes 7 credit hours of required core courses and 20 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee (at least 12

of the 20 credit hours must be offered through the Biology Department). The remaining 45 credit hours may consist of additional electives, doctoral dissertation research (PCB 7980), and a maximum of 12 credit hours of combined directed research (PCB 6918, PCB 7919, and PCB 5917) and independent study (PCB 6908). In addition, 15 credit hours of the remaining 45 credit hours must be comprised of doctoral dissertation research (PCB 7980).

A student is required to establish a program of study before the completion of nine credit hours of coursework, in conjunction with their dissertation adviser and advisory committee. Students are required to complete a minimum of 20 hours of electives in consultation with their advisory committee. In addition to these selected electives, a student's advisory committee may require the candidate to take any graduate course taught at UCF if deemed appropriate for the student's area of emphasis. Students entering with a master's degree may request up to 30 semester credit hours of previous work be waived toward the requirements for this degree with approval from the advisory committee. Students who transfer 30 credit hours must still take 2 credit hours of Biology Seminar ([BSC 6935](#)) and Professional Development I ([PCB 6095](#)) and II ([PCB 6096](#)). Students may register for dissertation research only after passing the candidacy exam.

Total Credit Hours Required: 73-74 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses: 7 Credit Hours

PCB 6466 Methods in Experimental Ecology

BSC 6935 Seminar in Biology

[Right] (2 credit hours, take twice at 1 credit hour each)

PCB 6095 Professional Development in Biology I

PCB 6096 Professional Development in Biology II

Elective Courses: 50 Credit Hours

A minimum of 20 credit hours of formal graduate-level courses from Biology, or other departments, are selected in consultation with the adviser and the dissertation committee. The goal is to tailor the program of study to the individual student's needs while maximizing exposure to a variety of disciplines including, among others, policy, economics, engineering, chemistry or sociology. The remaining 30 credit hours may

include additional electives, dissertation research (PCB 7980), and a maximum of 12 hours of combined independent study (PCB 6908) and directed research (PCB 6918, PCB 7919, and PCB 5917). Professional internship hours can be substituted for directed research.

Dissertation: 15 Credit Hours Minimum

PCB 7980 - Dissertation 15 Credit Hours

Advisory Committee

The Advisory Committee shall consist of a minimum of four members, including the dissertation adviser, with at least three members coming from the graduate faculty of the Biology Department. At least one member will be from a department other than Biology or from outside the university. The chair, or co-chair, must be a member of the program graduate faculty.

Enrollment Requirements

Students are required to register for 9 credit hours in fall and spring and 6 credit hours in summer before their candidacy exam. After being admitted to candidacy, minimum enrollment is 3 credit hours of dissertation research each semester.

Qualifying Examination

The written qualifying examination should be completed within the first two years of the students program. The exam seeks to cover areas of general knowledge and discipline-specific knowledge within the student's declared track. These questions could be related to the dissertation research proposal or designed to examine general knowledge and reasoning within the field.

The candidate will meet with their advisory committee at least two months prior to the examination to discuss expectations. Committee members must clearly articulate in writing the general areas that may be examined. Any student failing the examination must repeat the examination within six calendar months of the date of the first

examination and the examination requires a majority vote by committee

members. A second failed attempt will result in dismissal from the program.

Candidacy Examination

Each student will be required to generate, organize and orally defend a written proposal outlining their dissertation research to their dissertation advisory committee no later than 12 months after passing the Qualifying Examination. The oral Candidacy Examination will cover all areas within the scope of the student's doctoral program and requires that the student demonstrate knowledge of the theory, literature and research methodologies relevant to the proposed area of research as well as demonstrate an understanding of how their work relates to the field of biology as a whole. After passing the candidacy examination and meeting other requirements, the student will be deemed as having been admitted to candidacy and can register for dissertation hours. Once a student is admitted to candidacy, the focus will be on dissertation research. For most students, the research and writing of the dissertation will take two to three years after advancing to candidacy. During this time, students should remain in close contact with the dissertation adviser and advisory committee and annual progress reports must be filed with the Graduate Program Director.

Candidacy Examination Proposal

A written dissertation proposal, already approved by the adviser, must be submitted to each committee member no later than two weeks prior to the Candidacy Examination. Typically, the proposal will be in the format described below. However, in cases where this format is not appropriate, an alternative format may be used with the approval of the dissertation adviser. The proposal should be approximately 10 to 15 pages in length not including references, single-spaced and typed in 12-point font with one-inch margins on all sides. The use of figures and tables is encouraged. With rare exceptions it is expected that dissertation research will be hypothesis-driven.

Specific Aims: Describe concisely the problem(s) to be addressed and the specific goals of the dissertation research as they relate to the problem(s), including clear statements of hypotheses to be tested.

Background and Significance: Review background literature relevant to the dissertation topic, indicating clearly where gaps in knowledge exist. Justify the need for

the research by explaining its anticipated significance.

Conclude by linking gaps in current knowledge to the proposed specific aims.

Methodology: Outline carefully the study design (observations, experiments, models, statistical analysis, etc.) related to, and the methodology to be used for, each specific aim. Methodologies should be explained in sufficient detail to allow committee members to assess the validity of its use in the study. Potential outcomes and alternative approaches should be discussed.

Literature Cited: References should be indicated in the main body of the proposal wherever appropriate and should follow the format of a peer-reviewed journal in a field of study appropriate to your research. This section can be as long as necessary.

Examination

At least two weeks prior to the examination, an abstract describing the proposed research will be posted in the Biological Sciences Building and circulated by e-mail among faculty and graduate students. The candidate will present the research proposal in a forum open to all faculty, students and visitors. The oral presentation should be approximately 30-45 minutes in length to be followed by a public question-and-answer period. Presentation of preliminary data is neither required nor expected, but should be provided if available and relevant. With the exception of the advisory committee and candidate, all faculty, students and visitors will leave at the conclusion of the public question-and-answer period. The committee will continue the exam in closed session with further questioning. Questions can be directed to any matter relevant to the research proposal and areas of weakness previously identified in the written (qualifying) exam. A majority vote is required to pass the examination; however, no more than one negative vote is permitted. The majority must include the dissertation adviser. Any student failing the examination must repeat the examination within six calendar months of the date of the first examination. A second failed attempt will result in dismissal from the program.

Admission to Candidacy

The following are required to be admitted to candidacy and enroll in dissertation hours:

Program of study submitted and approved

Program of Study Submitted and approved.

Dissertation Committee formed (without external member).

Successful completion of qualifying exam.

Completion of all coursework (except for dissertation hours).

External member added to Dissertation Committee.

Successful completion of candidacy exam.

Dissertation Defense

The dissertation is expected to represent an original and significant contribution to the discipline. Upon completion and approval of the doctoral dissertation by all appropriate faculty and university offices, the student will make a formal presentation of the research findings in seminar format to the dissertation committee and other university faculty and students who may wish to attend.

The dissertation should be in a format appropriate for publication and should be "tightened" to a readiness for submittal by use of appendixes for nonessential information. The major role of the student's advisory committee is to offer guidance on study design and interpretation of results. A polished draft must be delivered to the advisory committee for review after the student and dissertation adviser have agreed upon editorial changes; this should occur well before the anticipated date of the final defense. Committee members have the right to reject documents that fail to meet these guidelines. Committee members should be given at least two weeks to review the draft before the student attempts to schedule the final defense. The final defense is to be scheduled only after the advisory committee agrees that the dissertation is ready for defense. Committee members should return the corrected dissertation to the student two weeks after receipt and the candidate should check with committee members to ensure they have the time to review the document. If the student delivers the final draft to the committee one month prior to the proposed defense date, that would allow two weeks before the scheduled defense date for the student to make recommended changes.

At least two weeks prior to the defense, an abstract describing the research conducted and conclusions reached will be posted in the Biological Sciences Building, circulated by e-mail among faculty and graduate students, and posted on the College of Graduate Studies Events Calendar. The candidate will present the research in a forum open to all faculty, students, and visitors. The oral presentation should be approximately 45-50 minutes in length to be followed by a question-and-answer period. In the presentation the candidate should focus on background information, describe the research performed, and draw attention to the significance of the conclusions reached. With the exception of the committee and candidate, all faculty, students, and

visitors will leave at the conclusion of the question-and-answer period. The committee will continue the defense and the candidate will answer questions about the subject matter presented and defend the conclusions drawn. The committee will ask questions of the process used and assess the candidate's level of competency with the research topic. A majority vote is required to pass the examination; however, no more than one negative vote is permitted. The majority must include the dissertation adviser.

Student Orientation

An orientation for all incoming students will be scheduled one week prior to each fall semester. The orientation will include tours of the program facilities, a session on registration, university policies and procedures, and expectations of doctoral study. Further, Environmental Health and Safety will present a program on topics such as laboratory safety, chemical and fire safety, biohazard training, and radioisotope handling. Expectations for Graduate Teaching Assistants (GTA) and Graduate Research Assistants (GRA) will be fully covered. In addition, students will be required to participate in the program for GTAs offered by the UCF Faculty Center for Teaching and Learning and the College of Sciences. Students are strongly encouraged to attend the university orientation as well, held approximately one week prior to each fall semester.

Independent Learning

The dissertation satisfies the independent learning experience.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the [Admissions](#) section of the Graduate Catalog. Applicants must [apply online](#). All requested materials must be submitted by the established deadline.

In addition to the [general UCF graduate application requirements](#), applicants to this program must provide:

One official transcript (in a sealed envelope) from each college/university attended.

Official, competitive GRE score taken within the last five years.

Three letters of recommendation.

Résumé.

Statement of research interest and purpose, including a summary of relevant work or research experience.

A computer-based score of 230 (or 89 internet-based score) on the Test of English as a Foreign language (TOEFL) if an applicant is from a country where English is not the official language, or if an applicant's degree is not from an accredited U.S. institution, or if an applicant did not earn a degree in a country where English is the only official language or a university where English is the only official language of instruction. Although we prefer the TOEFL, we will accept IELTS scores of 7.0.

Students entering the graduate program with regular status are normally expected to have completed course work generally required for a bachelor's degree in biology.

Applicants should first identify faculty who match their own research interests, and then contact faculty in advance to inquire about research opportunities in faculty labs and to solicit agreement that a faculty member is interested in serving as the student's dissertation advisor. Applicants to the Ph.D. program who do not have a consenting dissertation advisor within the department faculty will not be accepted into the program. Admission is competitive and based on an overall assessment of the qualifications as submitted and the availability of faculty to serve as dissertation advisor.

Meeting minimum UCF admission criteria does not guarantee program admission. Final admission is based on evaluation of the applicant's abilities, past performance, recommendations, match of this program and faculty expertise to the applicant's career/academic goals, the identification of a dissertation adviser, and the applicant's potential for completing the degree.

Application Deadlines

Students applying for summer or spring admission will be considered on an ad hoc basis.

Integrative Biology	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Feb 1		
International Applicants	Jan 15	Jan 15		
*Applicants who plan to enroll full time in a degree program and who wish to be considered for university fellowships or assistantships should apply by the Fall Priority date.				

Financials

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see the College of Graduate Studies [Funding website](#), which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The [Financial Information](#) section of the Graduate Catalog is another key resource.

Fellowships

Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see [UCF Graduate Fellowships](#), which includes descriptions of university fellowships and what you should do to be considered for a fellowship.

Contact Info

Graduate Program

Kenneth Fedorka PhD

Assistant Professor

kenneth.fedorka@ucf.edu

Telephone: 407-823-6685

BL 401B

Graduate Admissions

Anthony Tufano

gradadmissions@ucf.edu

Telephone: 407-823-2766

Millican Hall 230

Millican Hall 230

Online Application

Graduate Admissions

Mailing Address

UCF College of Graduate Studies

Millican Hall 230

PO Box 160112

Orlando, FL 32816-0112

Institution Codes

GRE: 5233

GMAT: RZT-HT-58

TOEFL: 5233

ETS PPI: 5233

Graduate Fellowships

Grad Fellowships

Telephone: 407-823-0127

gradfellowship@ucf.edu

<https://funding.graduate.ucf.edu>

Graduate Financial Aid

UCF Student Financial Assistance

Millican Hall 120

Telephone: 407-823-2827

Appointment Line: 407-823-5285

Fax: 407-823-5241

finaid@ucf.edu

<http://finaid.ucf.edu>

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this revised program, track, or certificate? * Yes No

If yes, state the name of the program or track where students are currently enrolled and attach a list of students if possible: Conservation Biology PhD, Integrative Track

Will students have the option to stay in their existing program, track, or certificate? * Yes No

If yes, how will current students be impacted by this change? ~~Since this This~~ is only a name change, **and** no **real** impact will occur.

Future Students

Provide a statement of who is likely to enroll and why. Please state if there is licensure or certification that depends upon this education, etc.

Year 1

Headcount:

SCHs:

Year 2

Headcount:

SCHs:

Year 3

Headcount:

SCHs:

Indicate likely

Indicate likely career or student outcomes upon completion:

Please complete the following section on financial support:

(Specify all forms of support – assistantships, fellowships, and tuition remission.)

Year 1

Number of assistantship students:	Source of funds:
Number of fellowship students (specify fellowship):	
Number of tuition remissions:	Source of funds:


Year 2

Number of assistantship students	Source of funds:
Number of fellowship students (specify fellowship):	
Number of tuition remissions:	Source of funds:

Year 3

Number of assistantship students:	Source of funds:
Number of fellowship students (specify fellowship):	
Number of tuition remissions:	Source of funds:

Attachments

Please attach the required files by navigating to the Proposal Toolbox and clicking  in the top right corner of the form.

Faculty List* <input type="radio"/> Attached <input type="radio"/> Not Applicable
Support from involved units that no duplication <input type="radio"/> Attached <input checked="" type="radio"/> Not Applicable

no duplication
exists*

Administration Use Only

**Catalog
Ownership:** Department of Biology

Program OID 7134

Program Type Doctoral

Degree Type Doctor of Philosophy

Status* Active-Visible Inactive-Hidden

Patrick	Bohlen
Lisa	Chambers
Geoffrey	Cook
Will	Crampton
Charissa	de Bekker
John	Fauth
Ken	Fedorka
Robert	Fitak
Michelle	Gaither
Eric	Goolsby
Sasha	Hararuk
Eric	Hoffman
David	Jenkins
Josh	King
Kristy	Lewis
Kate	Mansfield
Chase	Mason
	Quintana-
Pedro	Ascencio
Anna	Savage
Barbara	Sharanowski
Laurie	von Kalm
Linda	Walters
John	Weishampel
Graham	Worthy

College of Sciences - Integrative and Conservation Biology, PhD

2020-2021 Graduate Program Revision/Reactivation

General Catalog Information

This form is to be used to REVISE graduate degree programs, tracks, or certificate programs. If there are tracks being revised or added to a program, one form must be submitted for EACH program and the track(s).

Please refer to the Graduate Council Curriculum Meeting Schedule for submission deadlines.

Select *Program* below.

Program Type:* Program
 Shared Core

Proposal Type:*

Read before you begin

TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.

IMPORT curriculum data from the Catalog by clicking  in the top left corner.

FILL IN all fields required marked with an * after importing data. You will not be able to launch the proposal without completing required fields.

LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after proposal is launched.**


College:*

Unit / Department / College:*

Unit(s) Housing Program:

Type of Action:* Program
 Track

Certificate

IMPORT PROGRAM NOW! Please use the Import feature to import the program information from the Catalog by clicking  in the top left corner of the form.

Name of program, track and / or certificate:* **Integrative and Conservation Biology PhD, PhD**

Are you revising the name of the program, track, or certificate?*

Yes No

Proposed Effective Term / Year:* Fall / 2020

If you will be submitting other revision forms for tracks or course actions, please list them here:

Conservation Biology PhD, Conservation Track

Conservation Biology PhD, Integrative Track

Is the CIP code being updated?

Activity Log

Kenneth Fedorka

+ No

Yes No

If yes, please provide the new CIP code:

Rationale for revision:

The Conservation Biology PhD is currently split into two tracks: Conservation Biology and Integrative Biology. Graduate students and faculty research are equally split among these two tracks/ sub-disciplines of biology. Thus, the coursework and research programs supporting the PhD program are best represented by the title “Integrative and Conservation Biology PhD” and not “Conservation Biology”. Furthermore, the new title is expected to improve the number (and perhaps caliber) of applicants who apply to our program, as it is more representative of 21st century biology.

Complete the remaining required fields and LAUNCH this proposal! Do not begin revisions until **after** launch. Program revisions before launch will not be tracked.

Informational Description Chart- this will import.*

College: Sciences

Degree: PHD

Department: Biology

Option: Dissertation


Program Websites: <http://biology.cos.ucf.edu/graduate-program/phd-program/>

[Graduate Program Handbook](#)



Revise catalog copy here! After you revise courses, click on the Curriculum Schema button below to revise the catalog copy. Please note: this information is what will flow directly to the graduate catalog. Any attached documents to this proposal will not be used for catalog purposes.

Follow these steps to propose courses to the revised program curriculum:

Step 1

 There are two options for adding courses: "Add Course" and "Import Course." For courses already in the catalog, click on "Import Course" and find the courses needed. For new classes going through a Curriculog Approval Process click on "Add Course"-- a box will open asking you for the Prefix, Course Number and Course Title.

Step 2

Click on  "View Curriculum Schema." Click on the area/header of the program where you would like to add courses. When you click on "Add Courses" it will bring up the list of courses available from Step 1. Select the courses you wish to add. For removing courses click on the  and proceed.

Prospective Curriculum*

Program Description

The Conservation Biology PhD program prepares students for independent research and roles within industry, nongovernmental organizations, academia or government sectors combining biological sciences with disciplines such as economics, law, urban/rural planning, politics, communication, philosophy and environmental engineering.

The Conservation Biology PhD program provides an interface between traditional biological sciences and the areas of economics, law, urban and rural planning, politics, communication, philosophy and environmental engineering. The purpose of this training is to produce scientists capable of doing independent research and the ability to work within the broader area of environmental politics, law and economics to communicate issues of conservation biology to policy makers, the general public and industry.

Students will choose one of two specializations: Conservation Biology or Integrative Biology. The Conservation Biology Track is intended to provide the academic background necessary to begin work in industry, nongovernmental organizations or government in a leadership role applying cutting-edge principles to problem solving in conservation biology. The Integrative Biology Track embraces applied and basic research concerning ecological questions to address current concerns in the area of conservation biology. Students taking either track would be prepared to pursue an academic career.

Program Tracks

[Conservation Biology PhD, Conservation Biology Track](#)
[Conservation Biology PhD, Integrative Biology Track](#)

Curriculum

Students in the Conservation Biology PhD program must choose either the Conservation Biology Track or the Integrative Biology Track.

The Conservation Biology Track requires 72 credit hours beyond the bachelor's degree, including a minimum of 27 hours of formal course work exclusive of independent study. The formal course work includes 15 credit hours of required core courses and 12 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee (at least 4 of the 12 credit hours must be offered through the Biology Department). The remaining 45 credit hours may consist of additional electives, doctoral dissertation research (PCB 7980), and a maximum of 12 credit hours of combined directed research (PCB 6918, PCB 7919, and PCB 5917) and independent study (PCB 6908). In addition, 15 credit hours of the remaining 45 credit hours must be comprised of doctoral dissertation research (PCB 7980).

The Integrative Biology Track requires 72 credit hours beyond the bachelor's degree, including a minimum of 27 hours of formal course work exclusive of independent study. The formal course work includes 7 credit hours of required core courses and 20 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee (at least 12 of the 20 credit hours must be offered through the Biology Department). The remaining 45 credit hours may consist of additional electives, doctoral dissertation research (PCB 7980), and a maximum of 12 credit hours of combined directed research (PCB 6918, PCB 7919, and PCB 5917) and independent study (PCB 6908). In addition, 15 credit hours of the remaining 45 credit hours must be comprised of doctoral dissertation research (PCB 7980).

A student is required to establish a program of study before the completion of nine credit hours of course work, in conjunction with their dissertation adviser and advisory committee. A student's advisory committee may require the candidate to take any graduate course taught at UCF if deemed appropriate for the student's area of emphasis. Students entering with a master's degree may request up to 30 semester

credit hours of previous work be waived toward the requirements for this degree with approval from the advisory committee. Students who

transfer 30 credit hours must still take 2 credit hours of Biology Seminar ([BSC 6935](#)) and Professional Development I ([PCB 6095](#)) and II ([PCB 6096](#)). Students may register for dissertation research only after passing the candidacy exam.

Total Credit Hours Required: 72 Credit Hours Minimum beyond the Bachelor's Degree

Independent Learning

Graduate students enrolled in the Conservation Biology PhD program are expected to engage in independent learning throughout their graduate career. Research toward, and ultimate completion, of the doctoral dissertation is the primary example of independent learning in which all doctoral students participate. Independent learning is also a key component of the core course in Conservation Biology and Advanced Research Communication, where emphasis is placed on the development of analytical skills and critical thinking. In addition, depending on their career goals, other experiences such as directed readings, additional research projects, or internships may be undertaken by the students.

Application Requirements

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the [Admissions](#) of the Graduate Catalog. Applicants must apply online. All requested materials must be submitted by the established deadline.

Applicants must choose a track in this program. Track(s) may have different requirements.

Applicants should first identify faculty who match their own research interests, and then contact faculty in advance to inquire about research opportunities in faculty labs and to solicit agreement that a faculty member is interested in serving as the student's dissertation advisor. Applicants to the Ph.D. program who do not have a consenting dissertation advisor within the faculty will not be accepted into the program.

Application Deadlines

Students applying for summer or spring admission will be considered on an ad hoc basis.

Conservation Biology PhD	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Jan 15		
International Applicants	Jan 15	Jan 15		
*Applicants who plan to enroll full time in a degree program and who wish to be considered for university fellowships or assistantships should apply by the Fall Priority date.				

Financials

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see the College of Graduate Studies [Funding website](#), which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The [Financial Information](#) section of the Graduate Catalog is another key resource.

Fellowships

Fellowships are awarded based on academic merit to highly qualified students. They are paid to students through the Office of Student Financial Assistance, based on instructions provided by the College of Graduate Studies. Fellowships are given to support a student's graduate study and do not have a work obligation. For more information, see [UCF Graduate Fellowships](#), which includes descriptions of university fellowships and what you should do to be considered for a fellowship.

Contact Info

Graduate Program

Kenneth Fedorka PhD

Assistant Professor

kenneth.fedorka@ucf.edu

Telephone: 407-823-6685

BL 401B

Graduate Admissions

Anthony Tufano

gradadmissions@ucf.edu

Telephone: 407-823-2766

Millican Hall 230

Online Application

Graduate Admissions

Mailing Address

UCF College of Graduate Studies

Millican Hall 230

PO Box 160112

Orlando, FL 32816-0112

Institution Codes

GRE: 5233

GMAT: RZT-HT-58

TOEFL: 5233

ETS PPI: 5233

Graduate Fellowships

Grad Fellowships

Telephone: 407-823-0127

gradfellowship@ucf.edu

<https://funding.graduate.ucf.edu>

Graduate Financial Aid

UCF Student Financial Assistance

Millican Hall 120

Telephone: 407-823-2827

Appointment Line: 407-823-5285

Fax: 407-823-5241

finaid@ucf.edu

<http://finaid.ucf.edu>

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this revised program, track, or certificate?* Yes No

If yes, state the name of the program or track where students are currently enrolled and attach a list of students if possible:

Conservation Biology PhD

4814371 Amirthalingam
 4174833 Atkinson
 2558243 Bevan-Perkins
 3939773 Biazzo
 3353175 Bogota
 4156240 Borghesi-Lopez
 2751496 Christodoulides
 5068502 Conway
 4795713 Dal Pos
 4448115 Das
 3518585 Davis
 4801957 Dawson
 4437895 Dowell
 1308517 Garvis
 5057477 Ghoojaei
 3351233 Goodding
 4813285 Greaves
 3902982 Guilfoyle
 1579006 Hall
 4407310 Hart
 4507797 Harttung
 4189435 Konvalina
 1226644 Loch
 1891833 Long
 5059573 Majumder
 3548789 Malay
 4814282 Martin
 3279545 McMullen
 1053432 Myers
 3949560 Nielsen

3670441 Phillips
 3941656 Sacco
 3669262 Stahelin
 3968614 Stewart
 3125095 Toms
 4812329 Weldon
 4444460 Will

Will students have the option to stay in their existing program, track, or certificate?* Yes No

If yes, how will current students be impacted by this change? ~~As this~~ **This** is only a program name change, **and** students will not be impacted.

Future Students

Provide a statement of who is likely to enroll and why. Please state if there is licensure or certification that depends upon this education, etc.

Year 1

Headcount:

SCHs:

Year 2

Headcount:

SCHs:

Year 3

Headcount:

SCHs:

Indicate likely career or student outcomes upon completion:

Please complete the following section on financial support:

(Specify all forms of support – assistantships, fellowships, and tuition remission.)

Year 1

Number of assistantship students:

Source of funds:

Number of

number of
fellowship
students (specify
fellowship):

Number of tuition
remissions:

Source of funds:

Year 2

Number of
assistantship
students

Source of funds:

Number of
fellowship
students (specify
fellowship):

Number of tuition
remissions:

Source of funds:

Year 3

Number of
assistantship
students:

Source of funds:

Number of
fellowship
students (specify
fellowship):

Number of tuition
remissions:

Source of funds:

Attachments

Please attach the required files by navigating to the Proposal Toolbox and clicking  in the top right corner of the form.

Faculty List* Attached Not Applicable

Support from
involved units that
no duplication
exists* Attached Not Applicable

Administration Use Only

Catalog
Ownership:

Program OID 7193

Program Type

DOCTORAL

Degree Type

Doctor of Philosophy

Status*

Active-Visible

Inactive-Hidden

Patrick	Bohlen
Lisa	Chambers
Geoffrey	Cook
Will	Crampton
Charissa	de Bekker
John	Fauth
Ken	Fedorka
Robert	Fitak
Michelle	Gaither
Eric	Goolsby
Sasha	Hararuk
Eric	Hoffman
David	Jenkins
Josh	King
Kristy	Lewis
Kate	Mansfield
Chase	Mason
	Quintana-
Pedro	Ascencio
Anna	Savage
Barbara	Sharanowski
Laurie	von Kalm
Linda	Walters
John	Weishampel
Graham	Worthy

College of Sciences - BSC 5415 Sensory Ecology

2020-2021 Graduate Course New Split Level Class

General Catalog Information

The Graduate Council Curriculum Committee discourages the establishment of split-level classes. Graduate students are entitled to more challenging content, instruction, and assessment, which are difficult to provide in classes offered to undergraduates as well. Circumstances may require a unit to propose a split-level class. In these cases, the proposal should indicate the reasons a split-level class is necessary and what long-term measures are being taken to provide undergraduates and graduates with appropriate coursework to their degree level. In addition, it is important to differentiate each of the undergraduate and graduate course elements.

For more information, contact Dr. Devon Jensen, Associate Dean, in the College of Graduate Studies.

Proposal Type:

Grad Course Split Level

College:*

College of Sciences

Unit / Department
/ College:*

Department of Biology

For the **Full Title** box below, please type the course information in the following format: Prefix, Course Number, and Title. For example: IDS 6000 Creative Education

Full Title:* BSC 5415 Sensory Ecology

Course Instructor (Must be Approved Graduate Faculty/Scholars):* Dr. William Crampton

Department Chair Phone Number:* Dr. Graham Worthy

Dept Chair Email:* 407-823-1333

Please Note: Originators of New Course Proposals are responsible for designating the new course number. Instructions can be found at <https://graduatecouncil.ucf.edu/curriculum-committee/>. The file is **Course Number Guide** in the Other Resources section of this webpage. New Course forms submitted with a 5/6/7 XXX designation will not be accepted.

Prefix:*

BSC

Code:* 5415

Course Title:* Sensory Ecology

Course Description

**Course Description
(25 word limit)***

How and why animals acquire, process and use information from their environment, and how sensory systems influence evolutionary processes.

Grading Scheme:*

ABCDF

Prerequisite(s): Graduate status, or CI.

Corequisite(s):

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is for information only.

Credit Hours:* 3

Instruction Time:* 3

**Lab/Studio/Field
Work Hours:*** 0

**Out-of-Class
Hours:*** 3

**Total Engagement
Hours:*** 9

NOTE: In determining if a course is repeatable for credit, the concept is that the content is the same, but the student experience with that content will be different each time it is taken.

For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated.

Repeat for credit?* Yes No

If yes, indicate the total times the course may be used toward completion of the degree.

Term of Offering

When will the course be offered? Odd Fall Even Fall Odd Spring Even Spring Odd Summer
* Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as: * Required Course Elective Course

Materials and Supply Fee

New Materials and Supply Fees?* Yes No

If yes, also complete the 2020-21 Graduate Materials and Supply Fee form.

Justification for Split-Level Course Addition

What is the rationale for the split-level class? * Simultaneously provide a novel upper division undergraduate elective and graduate elective class with evolutionary and ecological content.

What grad programs/tracks require or recommend this course for graduation? n/a

What will be the source of students? * biology students

What is the estimated annual enrollment? * 25

List any course objectives or content:

1) That is common to both the undergraduate and graduate syllabi but have been differentiated for undergraduate and graduate students. For example, an objective for undergraduates may require identification of a concept where the graduate objective may require application of the concept. From this example, list the identification activity in the Undergraduate box below and the application

activity in the Graduate box below.

or

2) In cases where entirely new objectives or content have been added for graduate students, list those specific requirements in the Unique Graduate Elements section. For example, an objective for undergraduates may require reading ten articles where the graduate objective may require 15 articles. Then just list "5 extra articles" in the Unique graduate elements box below.

Common Undergraduate Elements* build on skills and knowledge; critical thinking on scientific questions and hypotheses; interpret graphs, figures, and basic statistics; participate in experiment;

Common Graduate Elements* read & discuss key case studies and learn why these studies were conducted; perform basic experimental design, lead a small group of undergraduates through a scientific experiment; conduct statistical analyses and present the findings. Write a review and present a topic paper.

Unique graduate elements* Written assignment & in-class participation. Students will be subject to higher grading expectations for written demonstrations.

List different or additional assessment elements (course assignments and tests that count toward the grade).

1) That is common to both the undergraduate and graduate syllabi but have been differentiated for undergraduate and graduate students. For example, an assignment for undergraduates may require a 10 page opinion paper worth 10% of the final grade where the matching graduate assignment may require a 20 page research paper with supporting research literature worth 25% of the final grade. From this example, list the 10 page paper in the Undergraduate box below and the 20 page paper in the Graduate box below.

or

2) In cases where entirely new assignments have been added for graduate students, list those specific assignments in the Unique Graduate Elements section. For example, an assignment for undergraduates may require a 10 page paper worth 5% of the final grade where the graduate assignment may require reading four articles plus an in-class presentation worth 10% of the final grade. Then just list the article number and the presentation in the Unique Graduate Elements box below.

Please note this information should be clearly expressed in the syllabus.

Undergraduate Assessment and % of grade* Exam 1&2 40%
Written term paper 25%
Demonstration 10%
Final Exam 25%

Graduate Assessment and % of grade* Exam 1&2 30%
Written term paper 20%
Oral presentation 5%
Participation 10%
Written demonstration 10%
Final Exam 25%

Unique Graduate Elements and % of grade*

Written assignment & in-class participation. Students will be subject to higher grading expectations for written demonstrations 25%

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail any discussions you have had or attach relevant documents like email threads in the Attachment List Section.

Detail Discussion**Course Syllabus Policy**

The University of Central of Florida has established guidelines as it relates to the form and structure of all course syllabi. An effective syllabus provides an overview of the purpose of a course, outlines course requirements, and defines expectations for student performance. Faculty members are responsible for developing course content and selecting pedagogical approaches for their courses. Leveraging this policy to develop them will provide a consistent approach for presenting essential information that supports learning and ensures that UCF is in compliance with the standards set forth by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and other accrediting bodies.

To this end, each syllabus should include the following required elements:

Information from the official Schedule of Classes

Instructor and/or GTA contact information

Explicit, public description of the course

Student learning outcomes

Sequence of course activity

Assessment and grading procedures

Course Materials and Resources

Core policy statements

Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities

Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy*

I have aligned this syllabus per the UCF syllabus policy.

Attachment List

Please include both the 4000 syllabus and the 5000 syllabus as attachments. The 5000 syllabus should bold any additions or differences.

Attached I have attached a course syllabi for both 4000 and 5000 level.

Support from involved units that no duplication exists Duplication support materials attached

Administration Use Only

Catalog Ownership:

Course Type

Status Inactive-Hidden Active-Visible

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID

SENSORY ECOLOGY

BSC 4415

3 credits, Spring 2020

Brief course description

Sensory ecology is the study of how and why animals acquire, process and use information from their environment, and how sensory systems influence evolutionary processes.

Course instructor

Dr. Will Crampton Office: 402A
Email: crampton@ucf.edu Office Hours: TBD

Course prerequisites

Animal Behavior ZOO 4513 (B or better) and/or Evolutionary Biology PCB 4683 (B or better), or CI

Course description

Sensory ecology is the study of how animals acquire, process, and make use of information from the environment (including from other animals), and how sensory systems influence evolutionary change. In this class you will learn about how animals acquire and process information from receptors and organs specialized for sensing light, sound, chemicals, electric fields, magnetic fields and more. You will learn why sensory information is useful to animals in a wide variety of terrestrial, freshwater, marine, and underground environments, and how sensory systems are adapted to different habitats and lifestyles. Finally, you will learn about how sensory systems influence key evolutionary processes.

Course objectives and format

Animals have evolved an astonishing array of sensory organs that are essential for survival and reproduction, and that are adapted to almost every ecological niche on the planet. This course has three aims: First, we review how, and for what purposes animals gather and use information, and how sensory systems and receptors work at the neurobiological, physiological, and anatomical level. Second, we examine how the form and function of sensory systems are matched to different habitats or ecosystems. Third, we will explore the role of sensory systems in key evolutionary processes such as reproductive isolation. For each of these themes we will not only discuss sensory systems that humans are familiar with (i.e. *visual*, *acoustic*, *olfactory*, and *tactile* senses), but also more exotic sensory systems such as *mechanoreception*, *electroreception* and *magnetoreception*, as well as acoustic and visual systems that detect stimuli outside our ranges of frequency sensitivity (ultrasound, infrasound, ultraviolet, infrared detection).

This is a lecture-based class, in which you will learn the theoretical basis of sensory ecology, as well as explore case studies and key experiments. There will be some reading assignments with in-class discussions of journal articles. There will also be an interactive experiment with *live* electric fish (weakly electric gymnotiforms from South America) in which groups of students will design, perform and analyze the results of short experiments over the course of 4 classes. A major goal of this class is to help you develop critical and independent scientific thinking.

During this class you will specifically:

- Learn core concepts in sensory ecology
- Build on skills and knowledge learned from other relevant classes
- Read and discuss key case studies and learn why these studies were conducted
- Learn to think critically about scientific questions
- Interpret graphs, figures, and basic statistics from the literature
- Understand basic experimental design and participate in a scientific experiment
- Write a review paper on a chosen topic

Text book

Martin Stevens (2013). *Sensory Ecology, Behavior, and Evolution*. Oxford University Press (paperback).

Class meeting times:

Lectures: Two 1 hr 20 min lectures per week (see Schedule)

Demonstrations: Conducted during class times

Class website

Webcourses (<https://webcourses.ucf.edu>)

Lectures, resources, and announcements will be posted on Webcourses

Grading scales

Grading Scale:

A: $\geq 90 - 100$, **B:** $\geq 80 < 90$, **C:** $\geq 70 < 80$, **D:** $\geq 60 < 70$, **F:** < 60 .

"Curving": Curves may be applied to exams. Students who achieve over 100% in exams 1 or 2 due to curving will have those points "rolled over" to next exam.

Grading breakdown:

Exam 1: 20%

Exam 2: 20%

Written term paper: 25%

Notes on demonstrations (in-class experiments): 10%

Final exam 25%: (semi-cumulative)

Exams 1 and 2: Multiple choice responses. I will provide scantrons.

Written term paper: You will pick a Sensory Ecology-related subject of interest to you and conduct a literature-based review. Submit a title and abstract for pre-approval (Maximum length 250 words) (see deadlines in Schedule).

Written demonstration notes: You will be graded on your notes, which should be compiled on sheets of letter paper and stapled together for submission. Please use the worksheets that will be handed out/posted on Webcourses. Please hand in your demonstration notes at the end of semester.

Final exam: Multiple choice and short answers/multiple choice. I will provide scantrons.

Extra credit: up to 2 points per semester will be given per student for consistent, outstanding contributions to in-class discussions.

Course policies and other information

Make-up policy: Make-up exams for Exams 1 and 2 can be provided only for valid, documented reasons (e.g. illness, mandatory religious observance, or authorized university events). Please contact me in advance as soon as possible if you require a make-up. There will be no make-ups for missed in-class activities. However, one in-class activity per semester will be automatically dropped. Please contact me in the case of attendance difficulties.

Communication: All e-mail correspondence should be via UCF email addresses or through Webcourses. By FERPA regulation emails from third-party email addresses cannot be responded to. Please place the course number and a brief subject description in the email title line. Please make sure you put your name at the end of the email.

General class policies: All members of the class must abide by the UCF Golden Rules of academic conduct and honesty.

Office hours: I encourage everybody to use office hours as a resource to discuss any part of the course, and your academic progress. If you are unable to come to the scheduled office hours, please contact me to seek an out-of-hours appointment.

Final Note: I reserve the right to change the syllabus and class schedule. These changes will be announced in lecture and on Webcourses.

Accessibility

It is my goal that this class be an accessible and welcoming experience for all students, including those with disabilities that may impact learning in this class. If anyone believes the design of this course poses barriers to effectively participating and/or demonstrating learning in this course, please meet with me to discuss reasonable options or adjustments. You may also contact SAS (Ferrell Commons 185; 407-823-2371; sas@ucf.edu) to talk about academic accommodations.

Preliminary Schedule:

Week	Date	Day	Lecture	Section	Subject	Chapter/ Reading	Deadlines (undergrads)
Week 1	Jan **		1 -	-	Course Introduction/Syllabus		
	Jan **		2	1	Introduction		1
Week 2	Jan **		1	2	Sensory Processing		2
	Jan **		2	3	Sensory Processing		2
Week 3	Jan **		1	4	Sensory Processing		2
	Jan **		2	5	Sensory Processing		3
Week 4	Jan **		1	6	Sensory Processing		3
	Jan **		2	7	Sensory Processing		3
Week 5	Feb **		1 -	-	Reading assignment - Discussion 1	paper (TBA)	
	Feb **		2 -	-	EXAM 1		
Week 6	Feb **		1	8	Sensory Processing		4
	Feb **		2	9	Communication	5 & 6	
Week 7	Feb **		1	10	Communication		7
	Feb **		2	11	Communication		8
Week 8	Feb **		1	12	Diversification and Adaptation		10
	Feb **		2	13	Diversification and Adaptation		10
Week 9	Mar **		1	14	Diversification and Adaptation		10
	Mar **		2 -	-	Reading assignment - Discussion 2	paper (TBA)	Term paper title/abstract due
	Mar **		Spring Break				
	Mar **		Spring Break				
Week 10	Mar **		1		EXAM 2		
	Mar **		2	15	Diversification and Adaptation		11
Week 11	Mar **		1	16	Diversification and Adaptation		11
	Mar **		2	17	Diversification and Adaptation		9, 12
Week 12	Apr **		1		Diversification and Adaptation		
	Apr **		2 -		Demonstration/Experiment	paper (TBA)	
Week 13	Apr **		1 -		Demonstration/Experiment		
	Apr **		2 -		Demonstration/Experiment		
Week 14	Apr **		1 -		Demonstration/Experiment		
	Apr **		2 -		Review		
Week 15	Apr **	TBD			EXAM 3 (FINAL)		Term paper, Demonstration notes

TBA = to be announced. TBD = to be determined.

SENSORY ECOLOGY

5XXX

4 credits, Spring 2020

Brief course description

Sensory ecology is the study of how and why animals acquire, process and use information from their environment, and how sensory systems influence evolutionary processes

Course instructor

Dr. Will Crampton Office: 402A
Email: crampton@ucf.edu Office Hours: TBD

Course prerequisites

Permission of course instructor

Course description

Sensory ecology is the study of how animals acquire, process, and make use of information from the environment (including from other animals), and how sensory systems influence evolutionary change. In this class you will learn about how animals acquire and process information from receptors and organs specialized for sensing light, sound, chemicals, electric fields, magnetic fields and more. You will learn why sensory information is useful to animals in a wide variety of terrestrial, freshwater, marine, and underground environments, and how sensory systems are adapted to different habitats and lifestyles. Finally, you will learn about how sensory systems influence key evolutionary processes.

Course objectives and format

Animals have evolved an astonishing array of sensory organs that are essential for survival and reproduction, and that are adapted to almost every ecological niche on the planet. This course has three aims: First, we review how, and for what purposes animals gather and use information, and how sensory systems and receptors work at the neurobiological, physiological, and anatomical level. Second, we examine how the form and function of sensory systems are matched to different habitats or ecosystems. Third, we will explore the role of sensory systems in key evolutionary processes such as reproductive isolation. For each of these themes we will not only discuss sensory systems that humans are familiar with (i.e. *visual*, *acoustic*, *olfactory*, and *tactile* senses), but also more exotic sensory systems such as *mechanoreception*, *electroreception* and *magnetoreception*, as well as acoustic and visual systems that detect stimuli outside our ranges of frequency sensitivity (ultrasound, infrasound, ultraviolet, infrared detection).

This is a lecture-based class, in which you will learn the theoretical basis of sensory ecology, as well as explore case studies and key experiments. There will be some reading assignments with in-class discussions of journal articles. There will also be an interactive experiment with *live* electric fish (weakly electric gymnotiforms from South America) in which groups of students will design, perform and analyze the results of short experiments over the course of 4 classes. A major goal of this class is to help you develop critical and independent scientific thinking.

During this class you will specifically:

- Learn core concepts in sensory ecology
- Read and discuss key case studies and learn why these studies were conducted
- Learn to think critically about scientific questions
- Interpret graphs, figures, and basic statistics from the literature
- Understand basic experimental design, lead a small group of undergraduates through a scientific experiment, conduct statistical analyses on the results, and present the findings to class.
- Write a review paper on a chosen topic and present this in a short talk to class

Text book

Martin Stevens (2013). *Sensory Ecology, Behavior, and Evolution*. Oxford University Press (paperback).

Class meeting times:

Lectures: Two 1 hr 20 min lectures per week (see Schedule)

Demonstrations: Conducted during class times

Class website

Webcourses (<https://webcourses.ucf.edu>)

Lectures, resources, and announcements will be posted on Webcourses

Grading scales

Grading Scale:

A: $\geq 90 - 100$, **B:** $\geq 80 < 90$, **C:** $\geq 70 < 80$, **D:** $\geq 60 < 70$, **F:** < 60 .

"Curving": Curves may be applied to exams. Students who achieve over 100% in exams 1 or 2 due to curving will have those points "rolled over" to next exam.

Grading breakdown:

Exam 1 15%

Exam 2 15%

Written term paper 1: 20%

Oral presentations of term paper 1: 5%

Participation in primary literature discussions: 10%

Written demonstration notes and participation in demonstrations (in-class experiments): 10%

Take home Final exam (written) 25%

Exams 1 and 2: Closed book short answers

Written term paper: You will pick a Sensory Ecology-related subject of interest to you and conduct a literature-based review. Submit a title and abstract for pre-approval (Maximum length 250 words) (see deadlines in Schedule).

Oral presentation of term paper: Shortly after submission you will present your term paper to the class as an oral presentation with power point graphics. Your paper will then be discussed by the entire class.

Participation in primary literature discussion: You will score points for constructive critical debate. Points will be awarded for the quality, not quantity of comments and contributions.

Written demonstration notes and participation in demonstrations. You will lead a small group of undergraduates (and possibly other graduates depending on enrolment) through the in-class experiments. You will be graded on your notes, which should be compiled on sheets of letter paper and stapled together for submission. You will also be graded on your discussions with the undergraduates in your group, and with the class in general. Please use the worksheets that will be handed out/posted on Webcourses. Please hand in your demonstration notes at the end of semester.

Final exam: Open book (take home). Details to be announced in the second half of semester. This will be a take-home exam.

Course policies and other information

Make-up policy: Make-up exams for Exams 1 and 2 can be provided only for valid, documented reasons (e.g. illness, mandatory religious observance, or authorized university events). Please contact me in advance as soon as possible if you require a make-up. There will be no make-ups for missed in-class activities. However, one in-class activity per semester will be automatically dropped. Please contact me in the case of attendance difficulties.

Communication: All e-mail correspondence should be via UCF email addresses or through Webcourses. By FERPA regulation emails from third-party email addresses cannot be responded to. Please place the course number and a brief subject description in the email title line. Please make sure you put your name at the end of the email.

General class policies: All members of the class must abide by the UCF Golden Rules of academic conduct and honesty.

Office hours: I encourage everybody to use office hours as a resource to discuss any part of the course, and your academic progress. If you are unable to come to the scheduled office hours, please contact me to seek an out-of-hours appointment.

Final Note: I reserve the right to change the syllabus and class schedule. These changes will be announced in lecture and on Webcourses.

Accessibility

It is my goal that this class be an accessible and welcoming experience for all students, including those with disabilities that may impact learning in this class. If anyone believes the design of this course poses barriers to effectively participating and/or demonstrating learning in this course, please meet with me to discuss reasonable options or adjustments. You may also contact SAS (Ferrell Commons 185; 407-823-2371; sas@ucf.edu) to talk about academic accommodations.

Preliminary Schedule:

Week	Date	Day	Lecture	Section	Subject	Chapter/ Reading	Deadlines (Grads)
Week 1	Jan **		1 -	-	Course Introduction/Syllabus		
	Jan **		2	1	Introduction		1
Week 2	Jan **		1	2	Sensory Processing		2
	Jan **		2	3	Sensory Processing		2
Week 3	Jan **		1	4	Sensory Processing		2
	Jan **		2	5	Sensory Processing		3
Week 4	Jan **		1	6	Sensory Processing		3
	Jan **		2	7	Sensory Processing		3
Week 5	Feb **		1 -	-	Reading assignment - Discussion 1	paper (TBA)	
	Feb **		2 -	-	EXAM 1		
Week 6	Feb **		1	8	Sensory Processing		4
	Feb **		2	9	Communication	5 & 6	Term paper title/abstract due
Week 7	Feb **		1	10	Communication		7
	Feb **		2	11	Communication		8
Week 8	Feb **		1	12	Diversification and Adaptation		10
	Feb **		2	13	Diversification and Adaptation		10
Week 9	Mar **		1	14	Diversification and Adaptation		10
	Mar **		2 -	-	Reading assignment - Discussion 2	paper (TBA)	
	Mar **		Spring Break				
	Mar **		Spring Break				
Week 10	Mar **		1		EXAM 2		
	Mar **		2	15	Diversification and Adaptation		11
Week 11	Mar **		1	16	Diversification and Adaptation		11
	Mar **		2	17	Diversification and Adaptation		9, 12
					Arms races, coevolution, Life's diversity		Term paper submission
Week 12	Apr **		1		Diversification and Adaptation		
	Apr **		2 -		Demonstration/Experiment	paper (TBA)	
Week 13	Apr **		1 -		Demonstration/Experiment		
	Apr **		2 -		Demonstration/Experiment		
Week 14	Apr **		1 -		Demonstration/Experiment		
	Apr **		2 -		Review		
Week 15	Apr **	TBD			EXAM 3 (FINAL)		Demonstration notes



TBA = to be announced. TBD = to be determined.

College of Sciences - PCB 6044 Ecological Modeling

2020-2021 Graduate Course New

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner.

**Course additions must be accompanied by a course syllabus and rationale.
Departments must also submit an electronic syllabus to the college curriculum person.**

**Please note: If your proposal is for a new split level course, do not complete this form.
Please complete the 2020-2021 Graduate Course Split-Level Class form.**

Proposal Type:	<input type="text" value="Grad Course Addition"/>
College:*	<input type="text" value="College of Sciences"/>
Unit / Department / College:*	<input type="text" value="Department of Biology"/>
For the Full Title box below, please type the course information in the following format: Prefix, Course Number, and Title. For example: IDS 6000 Creative Education	
Full Title:*	<input type="text" value="PCB 6044 Ecological Modeling"/>
Course Instructor (Must be Approved Graduate Faculty/Scholars):*	<input type="text" value="Dr. Oleksandra Hararuk"/>
Department Chair Phone Number:*	<input type="text" value="3-1333"/>
Dept Chair Email*	<input type="text" value="graham.worthy@ucf.edu"/>

Please Note: Originators of New Course Proposals are responsible for designating the new course number. Instructions can be found at <https://graduatecouncil.ucf.edu/curriculum-committee/> The file is **Course Number Guide** in the Other Resources section of this webpage. New Course forms submitted with a 5/6/7 XXX designation will not be accepted

Submitted with a S/O/AAA designation will not be accepted.

Prefix:*

PCB

Number:* 6044

Course Title:* Ecological Modeling

30 Character Abbreviation:* Ecological Modeling

Course Type:* Graduate Course Medicine (MD) Course

Course Description (25 word limit)* Mathematical models used in ecology and offers tools for process-based model development in ecology.

Grading Scheme:* ABCDF

Prerequisite(s): PCB 6466, or CI

Corequisite(s):

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is

for information only.

For further review, please see the SACSCOC

definition: <http://www.sacscoc.org/pdf/081705/Credit%20Hours.pdf>

Credit Hours:* 3

Instruction Time:* 3

**Lab/Studio/Field
Work Hours:*** 0

**Out-of-Class
Hours:*** 6

**Total Engagement
Hours:*** 9

**Variable Credit (0-
99):**

NOTE: In determining if a course is repeatable for credit, the concept is that the content is the same, but the student experience with that content will be different each time it is taken.

For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated.

Repeat for credit?* Yes No

If yes, indicate the total times the course may be used toward completion of the degree.

Term of Offering

When will the course be offered? Odd Fall Even Fall Odd Spring Even Spring Odd Summer
* Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as:* Required Course Elective Course

Materials and Supply Fee

New Materials and Supply Fees?* Yes No

If yes, also complete the 2020-21 Graduate Materials and Supply Fee form.

Justification for Course Addition

What is the

What is the rationale for adding this course?*

This course will strengthen the quantitative components of graduate programs offered by the Department of Biology.

What grad programs/tracks require or recommend this course for graduation?

What will be the source of students?*

Biology Graduate program

What is the estimated annual enrollment?*

10

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail any discussions you have had or attach relevant documents like email threads in the Attachment List Section.

Detail Discussion

No other departments were contacted. This course would be unique to graduate biology.

Course Syllabus Policy

The University of Central of Florida has established guidelines as it relates to the form and structure of all course syllabi. An effective syllabus provides an overview of the purpose of a course, outlines course requirements, and defines expectations for student performance. Faculty members are responsible for developing course content and selecting pedagogical approaches for their courses. Leveraging this policy to develop them will provide a consistent approach for presenting essential information that supports learning and ensures that UCF is in compliance with the standards set forth by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and other accrediting bodies.

To this end, each syllabus should include the following required elements:

Information from the official Schedule of Classes

Instructor and/or GTA contact information

Explicit, public description of the course

Student learning outcomes

Sequence of course activity

Assessment and grading procedures

Course Materials and Resources

Core policy statements

Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities

Statement regarding emergency procedures and campus safety,

encouraging students to be aware of their surroundings and familiar with actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy* I have aligned this syllabus per the UCF syllabus policy.

Attachment List

Please attach any required files by navigating to the Proposal Toolbox and clicking  in the top right corner.

Check* I have completed all relevant parts of the form.

Attached* I have attached a course syllabus and rationale.

Support from involved units that no duplication exists Duplication support materials attached

Administration Use Only

Catalog Ownership:

Course Type

Status Inactive-Hidden Active-Visible

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID



UNIVERSITY OF
CENTRAL FLORIDA

PCB 6XXX: Ecological Modelling

Department of Biology, College of Sciences
3 Credit Hours

Course Syllabus

Instructor:	Sasha Hararuk	Term:	Spring 2020
Office Location:	BIO 402C	Class Meeting Days:	Mon & Wed
Office Hours:	Mon, Wed 2-4 pm	Class Meeting Time:	TBD
Phone:	407-823-4701	Class Location:	TBD
Email:	ohararuk@ucf.edu	Course Modality:	P

Course Description

Mathematical models are a useful tool for learning about ecosystems as well as evaluating their response to changes in the environment. Models are also indispensable for making ecological forecasts and developing strategies for ecosystem management. This course provides an overview of models used in ecology, and offers tools for model development. We will first review the mathematical concepts that are often used in model development and analysis, revise programming in R, and learn to use Github – virtual repository hosting service that facilitates collaborative research. We will then go over models that are used in population ecology, disease ecology, and biogeochemistry, implement them in R, and apply them to a sample research question. Students will also propose a research question, address it via modelling techniques learned in class, and present the results in class.

Student Learning Outcomes

- Understand the basics of model development
- Construct a conceptual model and implement it in R
- Analyze the behavior of the model (monotonic vs oscillatory; stable vs unstable)
- Be able to work in virtual collaborative space (Github)
- Present a research project to a professional audience
- Summarize their research in a publication format

Enrollment Requirements

Pre-requisites: experience with calculus, or permission of instructor; PCB 6466 (Methods in Experimental Ecology I)

Course Activities

Homework assignments. There will be five homework assignments aimed to offer an opportunity to practice the material learned in class and get feedback on the level of understanding of the learned material.

Individual projects. Students will write a proposal for their individual research projects that would ideally be based on their current research. The proposal will be a 1- or 2-page document outlining the motivation for their project, methodological approach, and expected outcome. Students will then develop a model for their project, present their project in class, and summarize their work in a write-up.

Assignment Submission

Depending on the assignment, homework will need to be submitted via paper or via updates to a Github repository.

Final Exam

Final exam will take place on XXXX.

Assessment and Grading Procedures

Grading Methods

Grades will be assigned on the following scale:

A: 90-100%

B: 80-90%

C: 70-80%

D: 60-70%

F: <60%

Assignments	Percentage of Total Grade
Homework (5)	25%
Project proposal	10%
Presentation	15%
Individual project model script	10%
Project write-up	15%
Final exam	25%
Total	100%

Attendance/Participation

Although no points are given for attendance, it is crucial for doing well on the assignments. In addition, I strongly encourage you to stop by my office during my office hours if you have questions about the material or run into issues with the individual projects.

Course Materials and Resources

No required textbook. Reading materials will be provided through Webcourses.

Policy Statements

Academic Integrity

Students must familiarize themselves with [UCF's Rules of Conduct](#), which states that students are prohibited from engaging in academic misconduct, such as

- Unauthorized assistance: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course related material also constitutes cheating.
- Communication to another through written, visual, electronic, or oral means. The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment or project.
- Commercial Use of Academic Material: Selling of course material to another person, student, and/or uploading course material to a third party vendor without authorization or without the express written permission of the University and the Instructor. Course materials include but not limited to class notes, Instructor's power points, tests, quizzes, labs, instruction sheets, homework, study guides, and handouts.
- Falsifying or misrepresenting the student's own academic work.
- Plagiarism: Whereby another's work is used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
- Multiple Submissions: Submitting the same academic work for credit more than once without the express written permission of the instructor.
- Any student who knowingly helps another violate academic behavior standards is also in violation of the standards.

Responses to Academic Dishonesty, Plagiarism, or Cheating

UCF faculty members have a responsibility for your education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to infringements of academic integrity. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. For more information about the Z Designation, see <http://goldenrule.sdes.ucf.edu/zgrade>.

For more information about UCF's Rules of Conduct, see <http://www.osc.sdes.ucf.edu/>.

Course Accessibility Statement

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need specific access in this course, such as accommodations, should contact me as soon as possible to discuss various access options. Students should also connect with [Student Accessibility Services](#) (Ferrell Commons, 7F, Room 185, sas@ucf.edu, phone (407) 823-2371).

Campus Safety Statement

Emergencies on campus are rare, but if one should arise in our class, we will all need to work together. Everyone should be aware of the surroundings and familiar with some basic safety and security concepts.

- In case of an emergency, dial 911 for assistance.

- Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Please make a note of the guide's physical location and consider reviewing the online version at http://emergency.ucf.edu/emergency_guide.html.
- Familiarize yourself with evacuation routes from each of your classrooms and have a plan for finding safety in case of an emergency.
- If there is a medical emergency during class, we may need to access a first aid kit or AED (Automated External Defibrillator). To learn where those items are located in this building, see <http://www.ehs.ucf.edu/AEDlocations-UCF> (click on link from menu on left).
- To stay informed about emergency situations, sign up to receive UCF text alerts by going to my.ucf.edu and logging in. Click on "Student Self Service" located on the left side of the screen in the tool bar, scroll down to the blue "Personal Information" heading on your Student Center screen, click on "UCF Alert", fill out the information, including your e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
- If you have a special need related to emergency situations, please speak with me during office hours.
- Consider viewing this video (<https://youtu.be/NIKYajEx4pk>) about how to manage an active shooter situation on campus or elsewhere.

Deployed Active Duty Military Students

If you are a deployed active duty military student and feel that you may need a special accommodation due to that unique status, please contact me to discuss your circumstances.

Course Schedule

DATE	TOPIC	UCF DATES
Mon Jan 6, 2020	Syllabus + ecological modelling overview	First Day of Class, Pre-test, HW1 posted
Wed Jan 10, 2020	Review: derivatives, rules of differentiation	
Mon Jan 15, 2020	Review: Chain rule, derivative of inverse function, application of derivatives	
Wed Jan 17, 2020	Review: Integrals, definite/indefinite integrals, application in ecology	
Mon Jan 20, 2020	No class	MLK day
Wed Jan 22, 2020	Review: Rules of integration	HW1 due, HW2 posted
Mon Jan 27, 2020	Review: First order linear equations and their solutions, Euler's method	
Wed Jan 29, 2020	Matrix algebra review: system of linear equations, elimination, consistent system, unique solution	
Mon Feb 3, 2020	Operations with matrices, determinants	HW2 due, HW3 posted
Wed Feb 5, 2020	Eigenvalues and eigenvectors, application in ecological modelling	
Mon Feb 10, 2020	Population models: predator-prey, competition	HW3 due, HW4 posted
Wed Feb 12, 2020	Examining stability of population models, equilibrium states, sensitivity	
Mon Feb 17, 2020	Revision of R, Github setup	



Wed Feb 19, 2020	Implementing population dynamics models in R	
Mon Feb 24, 2020	Models in disease ecology/epidemiology: overview and application	HW4 due
Wed Feb 26, 2020	Implementing epidemiological models in R	
Mon Mar 2, 2020	Terrestrial biogeochemical models: overview and application	HW 5 posted
Wed Mar 4, 201	Analyzing biogeochemical models for consistency, stability	
Mon Mar 9, 2020		Spring Break (?)
Wed Mar 11, 2020		Spring Break (?)
Mon Mar 16, 2020	Implementing components of a carbon cycle model in R	
Wed Mar 18, 2020	Continue implementing components of a carbon cycle model in R	
Mon Mar 23, 2020	Applied question: carbon accounting in a forest, scaled approach. Implementing solution in R	HW5 due, individual project proposals due
Wed Mar 25, 2020	Applied question: carbon accounting in a forest, population dynamics approach. Implementing solution in R	
Mon Mar 30, 2020	Applied question: carbon accounting in a forest, individual based modelling approach. Implementing solution in R	
Wed Apr 1, 2020	Continued + coding catch-up	
Mon Apr 6, 2020	Work on individual projects, Q+A	
Wed Apr 8, 2020	Work on individual projects, Q+A	
Mon Apr 13, 2020	Project presentations	
Wed Apr 15, 2020	Project presentations	Last Day of Classes (?)
Mon Apr 20, 2020		Study Day, No Classes (?)
Wed Apr 22, 2020	Exam	Final Examination Period (?), project write-up due
Mon Apr 27, 2020		Last Day of Finals (?)
Fri May 1, 2020		Grades Due (?)

College of Sciences - CHS 5596 The Forensic Expert in the Courtroom

2020-2021 Graduate Course Revision

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after the proposal is launched.**

Course revisions must be accompanied by a course syllabus and rationale. Departments must also submit an electronic syllabus to the college curriculum person.

College:*


College of Sciences

Proposal Type*

Grad Course Revision

Unit / Department
/ College:*

Department of Chemistry

IMPORT COURSE NOW! Please use the Import feature to import the course information from the Catalog by clicking  in the top left corner of the form. Do **not** type the course prefix and code.

Prefix:*


CHS

Code:* 5596

Course Title:* The Forensic Expert in the Courtroom

30 Character
Abbreviation:* Forensics in Courtroom

Full Title:* CHS 5596 The Forensic Expert in the Courtroom

Complete the remaining required fields and **LAUNCH** this proposal by clicking  in the top left corner! Do not begin revisions until **after** launch. Course revisions before launch will not be tracked.

Course Description:*	A study of the The uses Uses of technically and scientifically trained expert witnesses at trial.
Prerequisite(s):	CHS 3533, CHS 6535, CHS 6536 Admission into M. S. Forensic Science program, the Digital Forensics M. S. or the Computer Forensics graduate certificate and C. I.
Corequisite(s):	
Grading Scheme:*	<input type="text" value="ABCDF"/>

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is for information only.

For further review, please see the SACSCOC

definition: <http://www.sacscoc.org/pdf/081705/Credit%20Hours.pdf>

Credit Hours:* 3

Instruction Time:* 3

**Lab/Studio/Field
Work Hours:*** 0

**Out-of-Class
Hours:*** 6

**Total Engagement
Hours:*** 9

NOTE: For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated. Also indicate who approves content before a course is repeated.

Repeat for credit?* Yes No

If yes, indicate the degree program name and the total times the course may repeated.

If the course you are revising is a split-level class, please note this revision form will only impact the graduate side of the course. The undergraduate component of the course should be revised through the Undergraduate Curriculum Committee. As a reminder, the graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor.

Split-Level Class:* Yes No

List undergraduate split-level course:

Term of Offering

When will the course be offered?*

Activity Log

Candice Bridge

+ Odd Spring

Odd Fall Even Fall Odd Spring Even Spring Odd Summer
 Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as:* Required Course Elective Course

Justification for Course Revision

What is the rationale for revising this

Update pre-requisites to reflect changes in the program. Also change the term from "even sprind" to "sprind".

course?*

What grad programs/tracks require or recommend this course for graduation? MSFS, MS Chemistry, Ph.D. Chemistry, MS Digital Evidence

If not a major requirement, what will be the source of students?

What is the estimated annual enrollment? 50

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail discussion you have had.

Detail Discussion There are no duplicates of this course. this is the only course offered on campus of its kind. It has been offered for several years now, we are just updating the course information.

Course Syllabus Policy

The University of Central of Florida has established guidelines as it relates to the form and structure of all course syllabi. An effective syllabus provides an overview of the purpose of a course, outlines course requirements, and defines expectations for student performance. Faculty members are responsible for developing course content and selecting pedagogical approaches for their courses. Leveraging this policy to develop them will provide a consistent approach for presenting essential information that supports learning and ensures that UCF is in compliance with the standards set forth by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and other accrediting bodies.

To this end, each syllabus should include the following required elements:

Information from the official Schedule of Classes

Instructor and/or GTA contact information

Explicit, public description of the course

Student learning outcomes

Sequence of course activity

Assessment and grading procedures

Course Materials and Resources

Core policy statements

Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities

Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with


actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy* I have aligned this syllabus per the UCF syllabus policy.

Attachment List

Please attach any required files by navigating to the Proposal Toolbox and clicking  in the top right corner.

Check I have completed all relevant parts of the form.

Attached I have attached a course syllabus and rationale.

Administration Use Only

Catalog Ownership:

Course OID

Course Type

Status Active-Visible Inactive-Hidden

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID

CHS 5596 – The Forensic Expert in the Courtroom

University of Central Florida – Spring 2019

Section	Meeting Days & Times	Room	Class Number
0W61	Online	Online	17428

“It is a capital mistake to theorize before you have all the evidence. It biases the judgement.” – Sherlock Holmes.

“Forensic scientists are not policemen. We are scientists. We deal with matters objectively. We do not [act] on our suspicion.”
– Cyril Wecht

Dr. Dana-Marie Dennis (Office Hours: Tuesdays, 3:30 – 5:00 PM; Thursdays: 2:00 – 4:00 PM; CHM 330; 407-823-5410)

Graduate Teaching Assistant: Jessica Kindell

Online Communication and Webcourses

In this course, the official mode of communication is through Webcourses (available at my.ucf.edu, then the “Online Course Tools” tab). Please ensure that all correspondence, through Webcourses and face-to-face, is professional and respectful. Messages sent to the instructor’s UCF email and/or is unprofessional (for example, no salutation or signature) or disrespectful will not receive a response. Once you send a message through Webcourses, you can expect a response within 48 hours, M – F (emails will not be answered on the weekends). Course information and grades will be available through the Webcourses learning management system; you are responsible for checking this site daily.

Enrollment Verification

Faculty are required to document students’ academic activity at the beginning of each course. In order to document that you began this course, **complete the “Enrollment Verification Quiz” on Webcourses by January 11 at 10:00 p.m.** Failure to do so may result in a delay in the disbursement of your financial aid. **In addition, the quiz will count toward your final grade and will not be dropped.**

Prerequisites

PR CHS 3533, CHS 6535, CHS 6536 or C.I.

Required Materials

- *Ethics and the Practice of Forensic Science*, by Robin T. Bowen, ISBN 978-1-4987-7713-1
- *Expert Testimony: A Guide For Expert Witnesses And The Lawyers Who Examine Them*, by Steven Lubet & Elizabeth I. Boals, ISBN 978-1-60156-399-6
- Additional reading materials will be available online through Webcourses and the UCF Library

Course Description

CHS 5596 is a three-credit, one-semester lecture course that addresses the special needs of the forensic scientist in preparing for and participating in courtroom proceedings. The primary goal of this course is to prepare the forensic scientist for their interaction with the Judicial System as an expert witness. The role of the expert witness is demanding, not only as it pertains to scientific knowledge, but also in investigations, law, ethics, communication, and education. Aspects of this course may rely on group interactions and/or assignments. If you are having difficulties with working in groups, please feel free to discuss this with the instructor.

Professional Conduct: Students are required to maintain a high standard of professional conduct at all times. Students must respect the culture, values, beliefs, and rights of the peers. During this course, alternative points of view are encouraged and should be received by others with respect.

Course Objectives

Students who successfully complete this course should be able to:

CHS 5596 – The Forensic Expert in the Courtroom

University of Central Florida – Spring 2019

- Understand the principles that govern admissibility of forensic evidence in the court system
- Discuss the issues that currently plague the forensic science community
- Understand the differences between morals and professional ethics

Grading

Questions relating to graded assignments must be addressed within one week of posting on Webcourses. Once the two week period passes, the grade will stand. See Webcourses for the course schedule. Grades will be determined by three categories:

1. **Quizzes and Discussion Postings (40% of final grade):** There will be several discussions and quizzes that will cover content from the weekly modules. See Webcourses for more information and due dates.
2. **Exams (40% of final grade):** There will be two exams - a mid-term and a cumulative final. The exams will include multiple choice and free-response essay questions. See Webcourses for exam dates.
3. **Professional Curriculum Vitae & Cover Letter (20% of final grade):** You will be required to create a professional curriculum vitae (CV) that can be used for both courtroom and job application purposes. In addition, you will be required to write a cover letter to be included as part of a job application. See Webcourses for instructions and due date.

Grading System: The overall score determines the letter grade by the following scale:

Percentage	Letter Grade
90.0 – 100%	A
80.0 – 89.9%	B
70.0 – 79.9%	C
60.0 – 69.9%	D
< 60.0%	F

No S/U grades will be assigned. An incomplete will only be granted when due to circumstances beyond the control of the student, a small portion of the required work remains undone, and the student is otherwise passing the course.

Course Policies

Makeup Assignments, Exams, Late Work: It is the student's responsibility to submit the assignment by the original due date to avoid late penalties. Late assignments will have a penalty of 25% per day, including weekends. It is the student's responsibility to discuss extensions and makeup assignments; these will be handled on a case-by-case basis for excused absences only. Missed quizzes/exams due to an excusable reason may be offered as a makeup pending instructor approval. It is the student's responsibility to contact the instructor (within 3 days of the missed quiz/exam) to request a makeup.

Excusable reasons **ONLY** include:

- a. Personal illness (verifiable by a doctor's note).
- b. Death of an immediate family member (verifiable by an obituary or funeral program).
- c. Military duty (verifiable by documentation from your supervisor).
- d. Severe weather conditions (as confirmed by university-wide statements and/or relevant media).

Note that employment schedules are not on the list of excusable reasons.

Red Zone Policy: In this course, the last 24 hours prior to a due date are known as "The Red Zone". During the red zone, there is no guarantee that the instructor will be available to answer any questions pertaining to the assignment, and/or to assist with any issues (i.e., power outages, computer crashes, the zombie apocalypse, etc.) you may encounter that inhibits completion of the assignment. Do not wait until the last minute to complete your assignments as there will be no make-up opportunities outside those listed above.

CHS 5596 – The Forensic Expert in the Courtroom

University of Central Florida – Spring 2019

Course Accessibility: Students in need of academic accommodation for a disability may consult with Students Accessibility Services (Ferrell Commons 185; 407-823-2371; sas@ucf.edu). Students are required to give reasonable notice to the instructor prior to requesting an accommodation (at least two weeks prior).

Academic Integrity: Many incidents of plagiarism result from the student's lack of understanding about what constitutes plagiarism; however, you are expected to familiarize yourself with UCF's policy on plagiarism. All submitted work must be a result of your own scholarly and creative efforts. UCF's Golden Rule defines plagiarism as follows: "*whereby another's work is used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own.*" Instances of academic dishonesty will be handled on a case-by-case basis and may result in a zero for an assignment/exam or removal from the course.

Turnitin: In this course we will use turnitin, an automated system that instructors can use to quickly and easily compare student assignments with websites, as well as, a repository of student papers that grows with each submission. After the assignment is processed, the instructor receives a report from turnitin.com that states if and how another author's work was used in the assignment. For more information, visit <http://www.turnitin.com>.

Copyright: This course may contain copyright protected materials such as video clips, images, text materials, etc. These items are used with regard to the Fair Use Doctrine so as to enhance the learning environment. Do not copy, duplicate, download, or distribute these items; these materials are strictly reserved for your use only.

Modification of the Course Syllabus: The instructor reserves the right to modify the syllabus at any time during the course to address changes needed in content, resources, assignments, due dates, etc. Changes will be made so as not to impact student grades negatively. Students will be notified of any changes via Webcourses.

Third Party Software & FERPA: During this course, you might have the opportunity to use the public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these are required assignments, you need not provide any personally identifying information on the public site. Do not post or provide any provide information about yourself or your classmates. Where appropriate, you may use a pseudonym or nickname. Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personal identity-sensitive information. If you have any concerns about this, please contact the instructor.

Other Helpful Information

UCF Cares: During your UCF career, you may experience challenges including struggles with academics, finances, or your personal well-being. UCF has a multitude of resources available to all students. Please visit <http://cares.sdes.ucf.edu/> if you are seeking resources and support, or if you are worried about a friend or classmate. If you are in immediate distress, please call Counseling and Psychological Services to speak directly with a counselor 24/7 ay (407)823-2811, or dial 911.

Important Dates to Remember:



Martin Luther King Jr. Day	January 21; No Classes
Spring Break	March 11 – 16; No Classes
Withdrawal Deadline	March 20; 11:59 PM
Study Day	April 23; No Classes
Final Exam Period	April 24 – April 30
Grades available on myUCF	May 6

College of Sciences - CHS 6535 Forensic Molecular Biology

2020-2021 Graduate Course Revision

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after the proposal is launched.**

Course revisions must be accompanied by a course syllabus and rationale. Departments must also submit an electronic syllabus to the college curriculum person.

College:*


College of Sciences

Proposal Type*

Grad Course Revision

Unit / Department
/ College:*

Department of Chemistry

IMPORT COURSE NOW! Please use the Import feature to import the course information from the Catalog by clicking  in the top left corner of the form. Do **not** type the course prefix and code.

Prefix:*


CHS

Code:* 6535

Course Title:* Forensic Molecular Biology

30 Character
Abbreviation:* Forensic Molecular Biology

Full Title:* CHS 6535 Forensic Molecular Biology

Complete the remaining required fields and **LAUNCH** this proposal by clicking  in the top left corner! Do not begin revisions until **after** launch.

Course revisions before launch will not be tracked.

Course Description: *	Procedures for recovering and typing DNA from evidentiary materials and the interpretation of data.
Prerequisite(s):	PCB 4524, graduate standing or C. I.; and must have successfully completed undergraduate courses in statistics and biology
Corequisite(s):	
Grading Scheme: *	<input type="text" value="ABCDF"/>

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is for information only.

For further review, please see the SACSCOC

definition: <http://www.sacscoc.org/pdf/081705/Credit%20Hours.pdf>

Credit Hours:* 3

Instruction Time:* 3

Lab/Studio/Field
Work Hours:* 0

Out-of-Class
Hours:* 6

Total Engagement
Hours:* 9

NOTE: For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated. Also indicate who approves content before a course is repeated.

Repeat for credit?* Yes No

If yes, indicate the degree program name and the total times the course may repeated.

If the course you are revising is a split-level class, please note this revision form will only impact the graduate side of the course. The undergraduate component of the course should be revised through the Undergraduate Curriculum Committee. As a reminder, the graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor.

Split-Level Class:* Yes No

List undergraduate split-level course:

Term of Offering

When will the course be offered? *

Activity Log

Candice Bridge

~~Even Fall~~

- Odd Fall Even Fall Odd Spring Even Spring Odd Summer
 Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as:* Required Course Elective Course

Justification for Course Revision

What is the rationale for revising this course? *

Update the term of offering to reflect when the course is actually taught. **Change term of offering from "Fall" to "Odd Fall"**

What grad programs/tracks

MSFS, MS Chemistry, Ph. D. Chemistry, MS Biology, Ph. D. Biology

**require or
recommend this**

**course for
graduation?**

**If not a major
requirement, what
will be the source
of students?**

MSFS, MS Chemistry, Ph. D. Chemistry, MS Biology, Ph. D. Biology

**What is the
estimated annual
enrollment?**

30

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail discussion you have had.

Detail Discussion

There are no duplicates of this course. this is the only course offered on campus of its kind. It has been offered for several years now, we are just updating the course information.

Course Syllabus Policy

The University of Central of Florida has established guidelines as it relates to the form and structure of all course syllabi. An effective syllabus provides an overview of the purpose of a course, outlines course requirements, and defines expectations for student performance. Faculty members are responsible for developing course content and selecting pedagogical approaches for their courses. Leveraging this policy to develop them will provide a consistent approach for presenting essential information that supports learning and ensures that UCF is in compliance with the standards set forth by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and other accrediting bodies.

To this end, each syllabus should include the following required elements:

Information from the official Schedule of Classes

Instructor and/or GTA contact information

Explicit, public description of the course

Student learning outcomes

Sequence of course activity

Assessment and grading procedures

Course Materials and Resources

Core policy statements

Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities


Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy* I have aligned this syllabus per the UCF syllabus policy.

Attachment List

Please attach any required files by navigating to the Proposal Toolbox and clicking  in the top right corner.

Check I have completed all relevant parts of the form.

Attached I have attached a course syllabus and rationale.

Administration Use Only

Catalog Ownership:

Course OID

Course Type

Status Active-Visible Inactive-Hidden

PeopleSoft

Academic Group

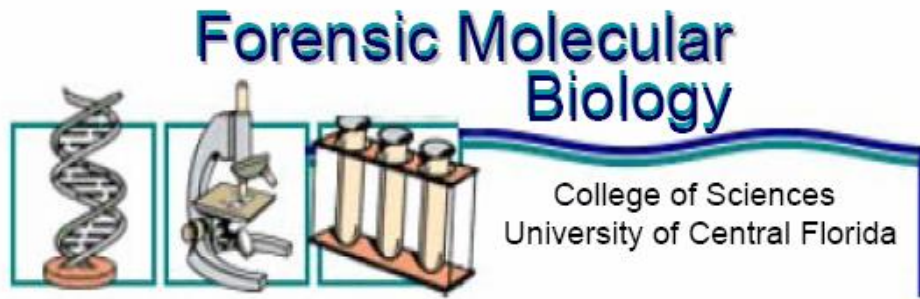
Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID



**CHS - 6535
Forensic Molecular Biology**

Dr. Jack Ballantyne

jack.ballantyne@ucf.edu

Syllabus and Schedule

Fall 2017

● Course Content

This course provides the student with an in-depth understanding of a number of advanced topics that are relevant to contemporary forensic DNA analysis. Topics covered include DNA biochemistry (structure, function, genotoxic damage and repair and the molecular basis of mutations), the molecular genetics of DNA polymorphisms (mini- and micro-satellites, autosomal and Y-STRs, and mt DNA) and analysis techniques (PCR and sequencing).

● Course Objectives

To facilitate:

- A deeper theoretical understanding of the basis of DNA typing technology which hopefully will enhance the student's technical problem-solving skills and better prepare him/her for expert witness presentations.

- The ability to read, comprehend and critically evaluate technical papers from primary sources.
-

● Texts

- **Articles**

The Course is based upon required readings from a number of original sources and review articles.

- **Book**

There is no suitable recommended textbook for this Course

● Withdrawal Deadline

- Monday October 30 2017
-

Syllabus

● Course Instructor/Facilitator

Instructor	Dr. Jack Ballantyne
Office	CH 223
Office Hours (via telephone)	1630 - 1800 (T-F)
Voice Mail	(407) 823-0163
Fax Number	(407) 823-4042
E-mail	jack.ballantyne@ucf.edu

My name is **Dr. Jack Ballantyne**, a Professor in the Department of Chemistry and the Associate Director for Research at the National Center for Forensic Science (NCFS). Prior to entering academia nineteen years ago I was an

operational casework forensic scientist for eighteen years and worked as such in the United Kingdom, Hong Kong and the US. My most recent operational appointment was as the Supervisor of the Biological Sciences Section of the Suffolk County Crime Lab, Long Island, New York where I was responsible for the administrative and technical management of three operational casework units, a conventional Serology Unit, a DNA-PCR Unit and a DNA-RFLP Unit. I have been actively involved in the issues of laboratory standards and accreditation at the national and state levels, serving on the federal DNA Advisory Board and National Forensic DNA Review Panel and the New York State DNA Sub-Committee. I possess a B.Sc. in Biochemistry from the University of Glasgow, Scotland, an M.Sc. in Forensic Science from the University of Strathclyde, Scotland and a Ph.D. in Genetics from the State University of New York at Stony Brook. My current research interests include Y chromosome markers, trace DNA and RNA profiling for body fluid identification. I really would have preferred to have been an overly-paid and spoiled professional European soccer player but a combination of genetics, seemingly dim-witted and short-sighted coaches and far too many biochemistry lectures and labs precluded this dream! Notwithstanding that, I do firmly believe in the need for academically-rigorous, scholarly programs for education and research in forensic biochemistry and molecular biology.

● Course Structure

- Seven topics are covered within the framework of seven modules.
 - I will introduce each topic via lecture notes and provide guidance as to the most relevant areas for further study
 - Active participation is important
 - There will be seven bi-weekly assignments which collectively cover all of the Course material
 - A term paper is required
 - Extra credit (i.e. bonus points) can be granted based upon participation in instructor led threaded discussions.
-

● What I expect from you

- to critically read the assigned journal articles
- to complete all assignments on time, barring some documented catastrophe
- to actively participate in the learning experience (after all this is a graduate class!)
- to contact me with any uncertainties, confusion or problems that may be affecting your performance or ability to complete the course
- to learn and have fun at the same time

• What you should expect from me

- to be scrupulously fair and honest with grade assessment
- to keep the class on track as a pro-active facilitator
- to be available for consultation and advisement
- to make your learning experience at UCF as beneficial and enjoyable as possible
- to learn with you and have some fun at the same time
- to respond to personal e-mail as soon as possible

• Modules

1. DNA Biochemistry
 - 1.1 DNA structure, properties, and reactions
 - 1.2. DNA stability, damage and repair and the molecular basis of mutation
2. Techniques
 - 2.1. PCR
 - 2.2 DNA sequencing
3. DNA Polymorphisms
 - 3.1. mini- and micro-satellites, SNPs
 - 3.2. STRs-autosomal
 - 3.3. STRs-Y chromosome

• Grading

Students' final grades will be based upon (i) their performance in seven bi-weekly assignments, which collectively cover all course material, and on (ii) participation in threaded discussions associated with each module

The grading scheme is A: 81-100%, B: 66-80%, C: 51-65%, Fail: 50% or less. The relative weight given to these assignments is as follows:

Bi-Weekly Assignments (7 topics @ 20 points/topic)	140 points	80%
Bi-weekly threaded discussions (7 topics @ 5 points/topic)	35 points	20%
Total	175 points	100%

Important: Each module lasts two weeks (except for the first module which is three weeks) and begins 5 PM on Monday and ends close of business (i.e. 5 PM) two weeks later on the second Monday. Please see below for the exact dates.

In order to receive credit for the assignments (after I've graded them of course!) they must be received by me at my email account (jack.ballantyne@ucf.edu) by 5 PM EST on the Monday deadline. Any assignments received by me after the 5PM Monday deadline will not be credited or graded. This is a firm rule so please ensure that the assignments are submitted on time.

Discussions

Each student is required to participate in instructor-led threaded discussions associated with each module. Up to 5 points per module are available. Points are assigned based upon the initial posting response by the student to the question or discussion item posed by the instructor (max 3 points) and the student's response to his/her colleagues' responses (max 2 points) in a threaded discussion. Each discussion module follows the exact same timetable as the module to which it is associated. Similar to the written assignments, in order to receive credit for the discussion, postings must take place during the module. Any postings after the 5PM EST Monday deadline will not be credited or graded.

Schedule



Activity	Date
Module1: DNA Biochemistry	
<i>1.1 DNA structure, properties and reactions</i>	21 Aug- 18 Sept
Assignment 1.1 Due	18 Sept
<i>1.2 DNA stability, damage and repair, mutation</i>	18 Sept- 2 Oct
Assignment 1.2 Due	2 Oct
Module 2: Techniques	
<i>2.1 PCR</i>	2 Oct - 16 Oct
Assignment 2.1 Due	16 Oct
<i>2.2 sequencing</i>	16 Oct - 30 Oct
Assignment 2.2 Due	30 Oct
Module 3: DNA Polymorphisms	
<i>3.1 mini- and micro- satellites</i>	30 Oct - 13 Nov
Assignment 3.1 Due	13 Nov
<i>3.2 STRs- autosomal</i>	13 Nov- 27 Nov
Assignment 3.2 Due	27 Nov
<i>3.3 STRs- Y chromosome</i>	27 Nov – 4 Dec
Assignment 3.3 Due	4 Dec

College of Sciences - CHS 6535L Forensic Analysis of Biological Materials

2020-2021 Graduate Course Revision

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
2. FILL IN all fields required marked with an *. You will not be able to launch the proposal without completing required fields.
3. LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after the proposal is launched.**

Course revisions must be accompanied by a course syllabus and rationale. Departments must also submit an electronic syllabus to the college curriculum person.

College:*


College of Sciences

Proposal Type*

Grad Course Revision

Unit / Department
/ College:*

Department of Chemistry

IMPORT COURSE NOW! Please use the Import feature to import the course information from the Catalog by clicking  in the top left corner of the form. Do **not** type the course prefix and code.

Prefix:*


CHS

Code:* 6535L

Course Title:* Forensic Analysis of Biological Materials

30 Character
Abbreviation:* Forensic Anal Bio Mats

Full Title:* CHS 6535L Forensic Analysis of Biological Materials

Complete the remaining required fields and LAUNCH this proposal by clicking  in the top left corner! Do not begin revisions until **after** launch. Course revisions before launch will not be tracked.

Course Description: *	A laboratory course for forensic molecular biologists covering the procedures for recovering and typing DNA from evidentiary materials.
Prerequisite(s):	<u>CHS 6535</u> , PCB 4524, or C. I. and satisfaction of biology requirements.
Corequisite(s):	
Grading Scheme: *	<input type="text" value="ABCDF"/>

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is for information only.

For further review, please see the SACSCOC

definition: <http://www.sacscoc.org/pdf/081705/Credit%20Hours.pdf>

Credit Hours:* 3

Instruction Time:* 3

**Lab/Studio/Field
Work Hours:*** 0

**Out-of-Class
Hours:*** 6

**Total Engagement
Hours:*** 9

NOTE: For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated. Also indicate who approves content before a course is repeated.

Repeat for credit?* Yes No

If yes, indicate the degree program name and the total times the course may repeated.

If the course you are revising is a split-level class, please note this revision form will only impact the graduate side of the course. The undergraduate component of the course should be revised through the Undergraduate Curriculum Committee. As a reminder, the graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor.

Split-Level Class:* Yes No

List undergraduate split-level course:

Term of Offering

When will the course be offered?*

Activity Log

Candice Bridge

+ Even Fall

- Occasional

- Odd Fall Even Fall Odd Spring Even Spring Odd Summer
 Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as:* Required Course Elective Course

Justification for Course Revision

What is the rationale for revising this course?*

Update term of offering from "Occasional" to "Even Spring" to accurately reflect when this course is taught.

What grad programs/tracks require or recommend this course for graduation?	MSFS, MS Chemistry, Ph. D. Chemistry, Ph. D. Biology, MS Biology
If not a major requirement, what will be the source of students?	MSFS, MS Chemistry, Ph. D. Chemistry, Ph. D. Biology, MS Biology
What is the estimated annual enrollment?	30

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail discussion you have had.

Detail Discussion	There are no duplicates of this course. this is the only course offered on campus of its kind. It has been offered for several years now, we are just updating the course information.
--------------------------	--

Course Syllabus Policy

The University of Central of Florida has established guidelines as it relates to the form and structure of all course syllabi. An effective syllabus provides an overview of the purpose of a course, outlines course requirements, and defines expectations for student performance. Faculty members are responsible for developing course content and selecting pedagogical approaches for their courses. Leveraging this policy to develop them will provide a consistent approach for presenting essential information that supports learning and ensures that UCF is in compliance with the standards set forth by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and other accrediting bodies.

To this end, each syllabus should include the following required elements:

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Instructor and/or GTA contact information

Explicit, public description of the course

Student learning outcomes

Sequence of course activity

Assessment and grading procedures

Course Materials and Resources

Core policy statements

Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities

Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy* I have aligned this syllabus per the UCF syllabus policy.

Attachment List

Please attach any required files by navigating to the Proposal Toolbox and clicking  in the top right corner.

Check I have completed all relevant parts of the form.

Attached I have attached a course syllabus and rationale.

Administration Use Only

Catalog Ownership:

Course OID

Course Type

Status Active-Visible Inactive-Hidden

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID



CHS – 6535L
Dr. Jack Ballantyne
Syllabus and Schedule

Spring 2018

● Course Content

This course provides the student with an in-depth understanding of the practical aspects of DNA profiling. It surveys most of the principal methods that have been used to date for nuclear DNA testing. It is a ‘methods understanding’ course and, due to it being web-based and notwithstanding the title, it is NOT a practical hands-on laboratory course.

● Course Objectives

To facilitate:

- A deeper understanding of the practical basis of DNA typing technology which hopefully will enhance the student's technical problem-solving skills and better prepare him/her for expert witness presentations.
 - The ability to read, comprehend and critically evaluate technical papers from primary sources.
 - A good understanding of the history of DNA profiling since its inception in the 1980s to the present.
-

● Texts

- **Articles**

The Course is based upon required readings from a number of original sources and review articles.

- **Book**

There is no required textbook for this Course. However a good reference text is: Advanced Forensic DNA Typing, Second Edition: Biology, Technology, and Genetics of STR Markers by John Butler. Academic Press, (2005). This is still good, containing as it does more details of the historical methods, despite there being more recent editions of this fundamental text.

- **Withdrawal Deadline**

- Wednesday March 21 2018
-

Syllabus

- **Course Instructor/Facilitator**

Instructor	Dr. Jack Ballantyne
Office	CH 223
Office Hours (via telephone)	1630 - 1800 (T-F)
Voice Mail	(407) 823-4041
Fax Number	(407) 823-4042
E-mail	jack.ballantyne@ucf.edu

My name is **Dr. Jack Ballantyne**, a professor in the Department of Chemistry. Prior to entering academia I was an operational forensic biochemist for eighteen years and worked as such in the United Kingdom, Hong Kong and the US. My most recent operational appointment was as the Supervisor of the Biological Sciences Section of the Suffolk County Crime Lab, Long Island, New York where I was responsible for the administrative and technical management of three operational casework units, a conventional Serology Unit, a DNA-PCR Unit and a DNA-RFLP Unit. I have been actively involved in the issues of laboratory standards and accreditation at the national and state levels, serving on the federal DNA Advisory Board and National Forensic DNA Review Panel and the New York State DNA Sub-Committee. I possess a B.Sc. in Biochemistry from the University of Glasgow, Scotland, an M.Sc. in Forensic Science from the University of Strathclyde, Scotland and a Ph.D. in Genetics from the State

University of New York at Stony Brook. My current research interests include Y chromosome markers, low template DNA (LTDNA) analysis and trace DNA analysis and RNA profiling for body fluid and organ tissue identification.

Course Structure

- There are three components to the course: (i) lectures/reading assignments; (ii) directed discussion using a bulletin board format; (iii) presentation (to be submitted as a Power point presentation) on an advanced forensic genetics method.
 - I will introduce each topic, provide guidance as to the most relevant areas for further study
 - Active participation is important in the discussions which run contemporaneously with the lecture modules
 - There will be six bi- weekly assignments which collectively cover all of the lecture/reading material
 - Students will be assigned their presentation topics subsequent to a class discussion on the bulletin board during the first class module.
-

What I expect from you

- to critically read the assigned journal articles
 - to complete all assignments on time, barring some documented catastrophe
 - to actively participate in the learning experience (after all this is a graduate class!)
 - to contact me with any uncertainties, confusion or problems that may be affecting your performance or ability to complete the course
 - to learn and have fun at the same time
-

What you should expect from me

- to be scrupulously fair and honest with grade assessment
 - to keep the class on track as a pro-active facilitator
 - to be available for consultation and advisement
 - to make your learning experience at UCF beneficial and enjoyable
 - to learn with you and have some fun at the same time
 - to respond to personal e-mail as soon as possible
-

● Modules

1. DNA Extraction Strategies
 2. Minisatellite (RFLP) Analysis
 3. D1S80 (AMP-FLP) Analysis
 4. Hybridization based PCR Techniques (PM + DQA1)
 5. STR Interpretation
 6. Low Copy Number Analysis
-

● Grading

Students' final grades will be based upon (i) performance in bi- weekly assignments, which collectively cover all course material, (ii) on participation in threaded discussions associated with each module and (iii) on a term presentation/Power Point. The grading scheme is A: 81-100%, B: 66-80%, C: 51-65%, Fail: 50% or less. The relative weight given to these assignments is as follows:

Important: Each module lasts 2 weeks and begins 5 PM on Monday and ends close of business (i.e. 5 PM) on the second Monday (except for Spring Break where the module lasts three weeks). Please see below for the exact dates.

In order to receive credit for the assignments (after I've graded them) they must be received by me at my email account (jack.ballantyne@ucf.edu) by 5 PM on the Monday deadline. Any assignments received by me after the 5PM Monday deadline will not be credited or graded. This is a firm rule so please ensure that the assignments are submitted on time.

Bi-Weekly Assignments (6 topics @ 20 points/topic)	120 points	60 %
Discussions (6 topics @ 5 points/topic)	30 points	15 %
PowerPoint Presentation	50 points	25%
Total	200 points	100 %

Discussions

Each student is required to participate in instructor–led threaded discussions associated with each module. Each module lasts two weeks and begins on 5 pm Monday and ends close of business (i.e. 5 PM) the second Monday. Please see below for the exact dates. The total discussion points obtainable for each module are 5. These are assigned based upon the initial posting response by the student to the question or discussion item posed by the instructor. Up to 3 points are awarded for this, and this initial posting must be made prior to 5 PM on the following Monday (to allow colleagues time to respond within the last week of the module). The remaining 2 points are based upon the student’s response to his/her colleagues’ responses in a threaded discussion. In order to receive full credit for the discussion postings must take place during the module. Any postings after the 5PM Monday deadline will not be credited or graded.

Presentation (Power Point or similar)

The student should prepare a (25 slide minimum) ‘Power Point’ presentation on a selected topic that covers a forensic biochemistry method not covered in the course. The topic for this year is Next Generation Sequencing technology. It should describe what analyte(s) or marker(s) the method was developed to detect, the physical and chemical principles of the method and the pros and cons of the method as its applied to forensic samples (small quantities, degraded, inhibited etc). It is important that you start the Power Point early in the semester and be working on it throughout the semester since it will be challenging to complete it in the two weeks assigned to the last module (that time is for ‘polishing up’ the presentation).

Schedule

January 8	Module 1 (DNA extraction) begins
<i>January 15</i>	<i>DNA extraction module (continued)</i>
January 22	Module 2 (RFLP) begins module 1 (DNA extraction) assignment due
<i>January 29</i>	<i>RFLP module (continued)</i>
February 5	Module 3 (Amp-FLPs:D1S80) begins module 2 (RFLP) assignment due



February 12	<i>DIS80 module (continued)</i>
February 19	Module 4 (PM + DQA1) begins module 3 (DIS80) assignment due
February 26	<i>PM + DQA1 module (continued)</i>
March 5	Module 5 (STRs) begins module 4 assignment (PM + DQA1) due
March 12	Spring Break
March 19	<i>STR module (continued)</i>
March 26	Module 6 (Low Copy DNA Analysis) begins module 5 (STRs) assignment due
April 2	<i>Low Copy DNA module (continued)</i>
April 9	PowerPoint preparation Module 6 (low copy DNA) assignment due
April 23	Power Point presentation due

College of Sciences - CHS 6536 Population Genetics and Genetic Data

2020-2021 Graduate Course Revision

General Catalog Information

****Read before you begin****

1. TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.
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3. LAUNCH proposal by clicking  in the top left corner. DO NOT make proposed changes before launching proposal. **Changes will only be tracked after the proposal is launched.**

Course revisions must be accompanied by a course syllabus and rationale. Departments must also submit an electronic syllabus to the college curriculum person.

College:*


College of Sciences

Proposal Type*

Grad Course Revision

Unit / Department
/ College:*

Department of Chemistry

IMPORT COURSE NOW! Please use the Import feature to import the course information from the Catalog by clicking  in the top left corner of the form. Do **not** type the course prefix and code.

Prefix:*


CHS

Code:* 6536

Course Title:* Population Genetics and Genetic Data

30 Character
Abbreviation:* Pop Gen and Gen Data

Full Title:* CHS 6536 Population Genetics and Genetic Data

Complete the remaining required fields and LAUNCH this proposal by clicking  in the top left corner! Do not begin revisions until **after** launch. Course revisions before launch will not be tracked.

Course Description:*	Analysis of laboratory derived DNA data and how they can be applied in an occupational context.
Prerequisite(s):	C.I. and must have successfully completed undergraduate courses in statistics and biology
Corequisite(s):	n/a
Grading Scheme:*	<input type="text" value="ABCDF"/>

Credit Hour Information

As part of UCF's accreditation with SACSCOC, we are required to have a formal model of credit hour designations. The following chart provides a general framework for faculty to use as they make course proposals. The elements will help faculty to better determine the credit hour designation for a course and help the institution with a standard approach in this determination.

Credit Hour Design Options

Credit Hour	1	1	1
(Formal) Instruction Time - Class Hours or Online Module, etc.	1	1	1
Lab/Studio/Field work	0	1	2
Out-of-Class (homework, course readings, group work, online posts, etc)	2	1	0
Total Course Engagement	3	3	3

Any combination of these elements that extend beyond the 3 hours of Total Course Engagement, could be considered a 2 credit hour class. The course should try to maintain a 1:3 ratio.

1 Credit hours = 3 hours of Total Course Engagement

2 Credit hours = 6 hours of Total Course Engagement

3 Credit hours = 9 hours of Total Course Engagement

4 Credit hours = 12 hours of Total Course Engagement

Please note the Out-of-Class hours will not appear in the graduate catalog. This field is for information only.

For further review, please see the SACSCOC

definition: <http://www.sacscoc.org/pdf/081705/Credit%20Hours.pdf>

Credit Hours:* 3

Instruction Time:* 3

Lab/Studio/Field
Work Hours:* 0

Out-of-Class
Hours:* 6

Total Engagement
Hours:* 9

NOTE: For a repeatable course, indicate in the syllabus what will remain the same and what will change when the course is repeated. Also indicate who approves content before a course is repeated.

Repeat for credit?* Yes No

If yes, indicate the degree program name and the total times the course may repeated.

If the course you are revising is a split-level class, please note this revision form will only impact the graduate side of the course. The undergraduate component of the course should be revised through the Undergraduate Curriculum Committee. As a reminder, the graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor.

Split-Level Class:* Yes No

List undergraduate split-level course:

Term of Offering

When will the course be offered? *

Activity Log

Candice Bridge

~~— Odd Fall~~

- Odd Fall Even Fall Odd Spring Even Spring Odd Summer
 Even Summer Every Semester Occasional

Intended Utilization of Course

The course will be used primarily as:* Required Course Elective Course

Justification for Course Revision

What is the rationale for revising this

Update the term of offering to reflect when the course is actually taught. **Changing Term from "Fall" to "Even Fall".**

course?*

What grad programs/tracks require or recommend this course for graduation? MSFS, MS Chemistry, Ph.D. Chemistry, MS Biology, Ph.D. Biology

If not a major requirement, what will be the source of students?

What is the estimated annual enrollment? 30

Possible duplications and conflicts with other departments or colleges should be discussed with appropriate parties. Please detail discussion you have had.

Detail Discussion There are no duplicates of this course. this is the only course offered on campus of its kind. It has been offered for several years now, we are just updating the course information.

Course Syllabus Policy

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Academic integrity statement including definition(s) of and consequences for academic misconduct

Statement directing students needing accommodations to work with faculty and with Student Accessibility Services to ensure equal access to educational activities

Statement regarding emergency procedures and campus safety, encouraging students to be aware of their surroundings and familiar with


actions to take in various types of emergencies

Statement regarding accommodations for active duty military students

Full details of the syllabus policy can be found at: <https://policies.ucf.edu/documents/4-403.1RequiredElementsoftheCourseSyllabus.pdf>

Course Syllabus Policy* I have aligned this syllabus per the UCF syllabus policy.

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Check I have completed all relevant parts of the form.

Attached I have attached a course syllabus and rationale.

Administration Use Only

Catalog Ownership:

Course OID

Course Type

Status Active-Visible Inactive-Hidden

PeopleSoft

Academic Group

Career

Print in Catalog

Effective Date

Lab Fee

CRSE_ID

CHS6536 Syllabus 2018

Topics

1. Overview of individual identification
2. STR Typing Characteristics
3. Allelic Independence and Matching
4. DNA Interpretation and Modeling
5. Population Structure and Relatedness
6. Reporting Likelihood Ratios
7. Y-STR Profiles
8. Incorporating Relatives
9. CPI/CPE; Profile & Match Probability
10. Other Techniques

Grading

There will be 8 assignments, each worth 10 points and an essay-type discussion of your choice of one of the topics covered in the course, worth 20 points. Letter grades will be assigned as *A* : 80 – 100; *B* : 65 – 79; *C* : 50 – 64.

Course Material

The course material will primarily be the lecture notes, and the references given there. The Evett and Weir book is provided for some background reading, as is the chapter Bruce Weir has written for the fourth edition of the “Handbook for Statistical Genomics” to be published in 2019.