Graduate Council Curriculum Committee
February 3, 2016
3:00 p.m., 395 Millican Hall

Agenda

1. Welcome and call to order
2. Approval of the minutes from the last meeting (curriculum, course, lab fees)
3. Material & Supply Fees tabled at November 18, 2015 meeting are still pending.
4. Addition of 3 split-level ANT/ANG courses in Anthropology, COS
5. Revisions to the Computer Forensics Graduate Certificate, COS
6. Name change for the Graduate Certificate in Mathematics and revisions to the Electives, COS
7. Revisions to the Forensic Science Concentration in the Elective Courses for the PhD in Chemistry, COS
8. Revisions to the PhD in Clinical Psychology, COS
9. Name change for the Applied Conservation Biology track and the Organismal Biology track in the PhD in Conservation Biology, COS
10. Revisions to the PhD in Sociology, COS
11. Courses and special topics
12. Adjournment

Members of the Graduate Council Curriculum Committee

Deborah Breiter Terry, Chair, RCHM
Charles Kelliher, CBA
Claire Knox, COHPA
Elsie Olan, CEHP
Wanda Raimundi-Ortiz, CAH
Jennifer Sandoval, COS
Art Weeks, CECS
Diane Andrews, CON
Steven Ebert, COM
Shuo “Sean” Pang, COP
Terrie Sypolt, LIB
Andrea Pulido, GSA
John Weishampel, CGS Liaison

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

Split-Level Class Action Request Form

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 compel 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. In addition, it is important to differentiate each of the undergraduate and graduate course elements. To provide reviewers with a clear delineation of the differences between the 4000 and 5000 courses, Summary Tables 1 and 2 should be completed.

Please submit this form along with the completed Course Action Request (CAR) form. Include both the 4000 syllabus and the 5000 syllabus. **The 5000 syllabus should bold any additions or differences.**

Provide narrative rationale for split-level class:

The introduction to the application of GIS methods within Anthropology, which this course provides, is needed by graduate students entering our graduate programs who lack these skills prior to taking further graduate coursework. Given the intensive, hands-on nature of the practicum component, necessary for teaching our graduate students these skills, it is more effective to teach this course as a formalized course rather than having them each take this as their own as an independent study course. Therefore, we would like to offer this course as a split-level course to allow graduate students to take this course within the more formalized classroom setting. This course is part of a two course sequence with GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS graduate certificate. A split-level course is being proposed because the additional work and leadership role in the graduate level course will be over and above what is expected for the majority of undergraduates completing the 4000-level course.

Table 1— 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;

or

2) in cases where entirely new objectives or content have been added to the existing undergraduate objectives and content, in the 5000 course column list any course elements that the graduate syllabus requires in addition to the elements of the undergraduate syllabus. For example, if there are 3 course readings in the undergraduate syllabus and a 4th reading was added for the graduate syllabus, list it in the 5000 course column and leave the 4000 course column blank.

Table 1 Differences Between 4000 and 5000 Course Objectives & Content

Course Element	4000 Course	5000 Course
Leadership in Discussion	Participation in discussion and demonstrating	Preparing assigned readings in order to lead the
	identification of concepts	classroom discussion with applications of the methods in
		the readings
Leadership in Class Teamwork Activities	Participating in group activities	Taking an assigned leadership role in group activities
Final Project Report	Demonstrate undergraduate level implementation	Demonstrate graduate level implementation of geospatial
	of geospatial tools to a research project and some idea	tools to research and the application of advanced interpretation
	of what the results mean	to the results achieved

Table 2—List different or additional **assessment** elements (course assignments and tests that count toward the grade). For example, if an undergraduate course assignment that requires students to read an article and write a reflection has been expanded to require graduate students to read a book and present it to the class, the two versions of this assignment would be contrasted in this table. If a third exam was added for graduate students, list it in the 5000 column.

Table 2 Differences Between 4000 and 5000 Course Assessment

Course Element	4000 Course Assessment & % of grade	5000 Course Assessment & % of grade	
Final Project Report	Preparing a basic undergraduate report	Preparing a 15 page report on their	70% of grade (70 points)
	on their research project that is 10 pages in length	research project, comparable to a	
	(70% of grade / 70 points)	report that would be submitted to	
		a project funding organization or	
		agency	
Discussion	Participation as noted in Table 1 (Portion of 9% / 9 points)	Leadership as noted in Table 1	Portion of 9% of grade (9 points)
Class Teamwork Activities	Participation as noted in Table 1 (Portion of 9% / 9 points)	Leadership as noted in Table 1	Portion of 9% of grade (9 points)

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or

2) in cases where entirely new objectives or content have been added to the existing undergraduate objectives and content, in the 5000 course column list any course elements that the graduate syllabus requires in addition to the elements of the undergraduate syllabus. For example, if there are 3 course readings in the undergraduate syllabus and a 4th reading was added for the graduate syllabus, list it in the 5000 course column and leave the 4000 course column blank.

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Discussion	Participation as noted in Table 1 (Portion of 9% / 9 points)	Leadership as noted in Table 1	Portion of 9% of grade (9 points)
Class Teamwork Activities	Participation as noted in Table 1 (Portion of 9% / 9 points)	Leadership as noted in Table 1	Portion of 9% of grade (9 points)

University of Central Florida

Course Action Request Form

■ Course Addition ☐ Course Revision ☐ Course Deletion

Forward to your college office

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

College: Sciences **Department:** Anthropology

Department Chair: Tosha Dupras **Phone:** 407-823-6725

Approved Graduate Faculty/Scholars: Scott Branting

	Course Prefix	Number	Title	Credit Hours Ex.: 3(3,0)
Course Prefix	ANG	5XXX	Advanced GIS Methods in Anthropology	3 (3,0)
New or Proposed Revision				

30 Char. Abbreviation: Adv GIS Methods Anthropology

Course Description (25 word limit)

~~This course provides~~ Advanced methods to Geographic Information Systems (GIS) from an anthropological perspective.

Will lab fees be charged? ☐ Yes ■ No

Repeat for credit? ☐ Yes ■ No If yes, indicate the total times this course may be used in the degree program. _____

Repeat within same semester? ☐ Yes ■ No

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.

Prerequisite(s) and/or Corequisite(s): PR: Admission to Anthropology MA program and future GIS certificate **Graded S/U?** ☐ Yes ■ No

Split-Level Class: ■ Yes ☐ No

If offering a split-level class, complete this section even if it had been approved earlier for individual delivery.

List undergraduate split-level course: ANT 4XXX Advanced GIS Methods in Anthropology

NOTE: *Both the graduate and the undergraduate split-level syllabi must be approved through the established university process for approving courses so that there are two separate and complete syllabi for each course. The graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor. Attach both undergraduate and graduate syllabi to this form.*

Term of Offering
When will course be offered?

☐ Odd Fall ■ Odd Spring ☐ Odd Summer ☐ Every Semester

☐ Even Fall ☐ Even Spring ☐ Even Summer ☐ Occasional

Intended Utilization of Course
The course will be used primarily as:

■ Required Courses ■ Elective Courses

Justification for Course Addition or Course Revision

What is the rationale for adding/changing this course?

Provides students with advanced methods from an anthropological perspective using geographic information systems. The GIS cluster certificate will require 2 courses that will both be at the 4000/5000 level for each department.

What majors require or recommend this course for graduation? Anthropology MA and future GIS certificate students

If not a major requirement, what will be the source of students? Anthropology MA and future GIS certificate students

What is the estimated annual enrollment? 5

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

Approvals received from Biology, Sociology, COHPA, and Political Science are attached.

Justification for Course Deletion

Is this course a required course for graduation in a major or prerequisite? ☐ Yes ☐ No

If yes, have the involved major departments been informed, in writing, of proposed deletion? ☐ Yes ☐ No

If not, explain:Course Description (25 word limit)

Notes:

Approval Signatures

Department Chair _____ **Date** 10-16-15

College Academic Standards _____ **Date** _____

College Dean _____ **Date** _____

Graduate Council _____ **Date** _____

Graduate Dean _____ **Date** _____

ANT4XXX: Advanced GIS Methods in Anthropology

Department of Anthropology

College of Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	*Scott Branting*	*Term:*	*Spring 2017*
Office:	*Phillips Hall 409-O*	*Credit Hours*	*3*
Phone:	*(407) 823-4962*	*Class Meeting Days:*	*Tu, Thr*
E-Mail:	*scott.branting@ucf.edu*	*Class Meeting Hours:*	*10:30am – 12:00pm*
Website:	*Canvas*	*Class Location:*	*TBD*
Office Hours:	*TBD or by appointment*	*TA:*	*TBD*
		TA email:	*TBD*

University Course Catalog Description

This course provides advanced methods to Geographic Information Systems (GIS) from an anthropological perspective. This course is part of a two course sequence with GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS undergraduate certificate.

Course Overview

This course will build upon the GIS Methods in Anthropology course by engaging you in implementing the research proposals using real world data that you developed in the earlier course. Course readings build upon topics presented in the earlier course and discussion sessions will allow deeper exploration of key topics. This course will allow you to achieve a working proficiency in one or more core areas of geospatial analysis and achieve the completion of a project to showcase your knowledge and skills. Presentation and peer review of the final geospatial projects will encourage your engagement with not only your own topic but also the topics and analysis of the widely divergent projects developed in this course. This course is part of a two course sequence with GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS undergraduate certificate.

Course Objectives

In this course, students will gain skills in:

- Project Implementation: applying a research design to real world data to generate interpretable scientific results
- Writing: writing a final project report based on the conclusions of the research
- Public speaking: through the presentation of the project and its analysis
- Interdisciplinarity: both working with interdisciplinary data sources and methods, as well as peer review of other students' interdisciplinary projects.

Course Prerequisites
ANT4xxx: GIS Methods in Anthropology or consent of instructor

Required Text and Articles
Many readings in this course take the form of journal articles, which are available through the UCF Library web site. In cases where a reading is not available for electronic download, a copy of the reading will be made available through the course website on Webcourses@UCF. The following texts are also required for the course:

- Wilson, John P. & Fotheringham, A. Steward (2009): The Handbook of Geographic Information Science. Malden: Blackwell.

Basis for Final Grade
Your grade will be based upon your final project report (70%), a syllabus quiz (1%), participating in discussions of the readings (9%), and a presentation of that proposal to the entire class (20%). Failure to hand it in assignments on the due date, in the absence of a pre-accepted excuse, will result in a score of (0) for that assignment. Presentation times during the final weeks of class will be scheduled later in the class. Failure to present at that time, in the absence of a pre-accepted excuse, will result in a score of (0) for the presentation.

Assignments	***Due Date***	***Percent of Grade***	***Max. Points***
Syllabus Quiz	By Friday, Week 1 at 5pm	1% and federal verification requirement	1
Participation in Classroom Discussions and Team Activities	In class on assigned weeks	9%	9
Undergraduate Final Project Report	Tuesday of Finals Week	70%	70
Oral Presentation of Project	Assigned Class Period in Weeks 14,15, and 16	20%	20

The syllabus quiz also completes the verification requirement for students who receive federal financial aid. Verification of student engagement is required to support UCF's compliance with federal financial aid regulations. The regulations state that without verification of student engagement at the start of each course in which a student is enrolled, students will not receive their student aid. UCF is required to verify that every student enrolled in every course meets this regulation. All students, whether or not you receive federal student aid, are required to complete the syllabus quiz by 5pm on the Friday of first week.

Letter Grade	*Points*
A	93 – 100 points
A-	90 – 92 points
B+	87 – 89 points
B	83 – 86 points
B-	80 – 82 points
C+	77 – 79 points
C	73 – 76 points
C-	70 – 72 points
D+	67 – 69 points
D	63 – 66 points
D-	60 – 62 points
F	59 and below

Course Policies

Student Conduct
All student conduct must conform to the purpose of this class, which is to provide a welcoming and inclusive environment for the learning and sharing knowledge. This will require civility and respect for each other during lectures and discussions, as well as trust and cooperation between you and me. Cheating, plagiarism, and disruptive behavior will, therefore, not be tolerated in class. If your behavior in class is being disruptive (e.g. talking, violating the electronic device policy, arriving late, distracting other students), I may use my right as instructor to ask you to leave the class. If a student habitually disturbs the class I also reserve the right to reduce their final course grade by up to 10%. Plagiarism and cheating are particularly serious offenses. Penalties for plagiarism or cheating can include a failing grade on 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://z.ucf.edu/. All students are required to follow the Rules of Conduct found within the Golden Rule, the University of Central Florida's Student Handbook (www.goldenrule.sdes.ucf.edu). Violations of these rules may result in a record of the infraction being placed in your file. Confirmation of such incidents may result in expulsion from the University.

Disability Accessibility
Both I and the University of Central Florida are committed to providing reasonable accommodations for people with disabilities. Students who need accommodations in this course must first register with Student Accessibility Services (sas.sdes.ucf.edu) and should also speak with me at the start of the semester to discuss needed accommodations. The Student Accessibility Services office is available to also provide you with a wide range of assistance beyond this course setting.

University Writing Center: The University Writing Center (uwc.cah.ucf.edu) is a free resource for UCF students. If you require assistance with any part of the writing process, they have trained consultants who can help you if you plan ahead. Since written assignments comprise a large percentage of your grade for this course, I would encourage you to seek out their assistance if you require it.

Electronic Device Policy
Students learn in different ways and are comfortable with different technologies. You are welcome to use a computer, tablet, smartphone or similar device in class meetings for note taking. You may not, however, use these devices for non-course-related purposes including: phone calls, texting, checking emails, and making use of the internet. If you wish to use them to record a lecture you need to ask about this in advance. You may also not use the device in any way that is distracting to other students in the classroom. If you are found to be doing so, you will be asked to put away the device and will not be permitted to use devices in class from that point forward. The use of a device to send or receive a call or message is not permitted in class at any point unless there is an emergency. Please be sure these devices are silenced, in accordance with University policy, and in your pocket or bag for the duration of the class.

Attendance
Attendance at class meetings is important for an understanding of course materials and for success in this class. I will not take formal class attendance, although I may keep a record of attendance of individual students at my discretion if it is warranted based on class performance. I expect that students attend class regularly and I will not provide class notes or lecture slides to students for class periods that students miss. In addition, if you are not in attendance on days when you may be presenting, without a pre-accepted excuse, you will receive a score of (0) for that assignment.

Updates and Notifications
The course website on Webcourses will be used for any general notifications or updates to this course, including changes to this syllabus.

Obtaining Notes for Missed Lectures
If you miss a lecture it is your responsibility to obtain notes from a fellow classmate. I will not provide notes or a copy of any lecture or activity.

Grades of "Incomplete"
Incomplete grades are only given when an unexpected and documented emergency situation prevented a student from completing the remaining work at the time when the emergency occurred. I have the right to make the final decision on whether or not to issue an incomplete, rather than submitting a final grade based upon your completed work. Incomplete work must be finished by the end of the next semester or the "I" will automatically become an "F" on your transcript.

Course Schedule

This syllabus is tentative and I may make reasonable schedule modifications to meet the goals of the class. Articles will be posted on the course website or provided in class.

Week	Day	Date	Topic Assignments Due	Reading Assignments
1	 T Th	 Jan. 10 12	Introduction to Class and Project Outline Classroom - Introduction Lab - Project Preparation Session **ASSIGNMENT: Syllabus Quiz due Fri. 13th, 5pm**	**Wilson and Fotheringham pp. 11-34**
2	 T Th	 Jan. 17 19	Monitoring Anthropological Phenomena from Space Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 49-60;** **Parcak (2015): "Remote Sensing with Satellite Technology";** **Sun et al. (2015) "Quantifying spatiotemporal patterns of urban expansion in three capital cities in Northeast China over the past three decades using satellite data sets";** **De Vos et al. (2008) "Images of war: using satellite images for human rights monitoring in Turkish Kurdistan";** **Joshi et al. (2015) "Mapping dynamics of deforestation and forest degradation in tropical forests using radar satellite data"**

3	T Th	Jan. 24 26	Databases and Large Datasets Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 35-48, 80-93, 111-143;** **Exeter et al. (2014): "'Whose data is it anyway?' The implications of putting small area-level health and social data online";** **Ono and Sullivan (2013): "Manufacturing Plants'Use of Temporary Workers: An Analysis Using Census Microdata"**
4	T Th	Jan. 31 Feb. 2	Field Methodologies for Generating Geospatial Data Classroom – Lecture and Discussion Lab - Project Preparation Session	**Strandburg-Peshkin et al. (2015): "Shared decision-making drives collective movement in wild baboons";** **White (2013): "LIDAR, Point Clouds, and Their Archaeological Applications";** **Calabrese et al. (2010): "The Geography of Taste: Analyzing Cell-Phone Mobility and Social Events"**
5	T Th	Feb. 7 9	Digital Terrain Generation – From Plane Tables to LiDAR Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 49-60, 417-435;** **Smith (2003): "Urban remote sensing: the use of LiDAR in the creation of physical urban models";** **Chase et al. (2013): "The Use of LiDAR at the Maya Site of Caracol, Belize."**

6	T Th	Feb. 14 16	Engagement with People and Societies Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 466-493;** **Brovelli et al. (2015): "Public participation in GIS via mobile applications";** **Brown et al. (2014): "Assessing the value of public lands using public participation GIS (PPGIS) and social landscape metrics"**
7	T Th	Feb. 21 23	More Qualitative Analysis Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 352-366;** **Tobler and Wineburg (1971): "A Cappadocian Speculation";** **Gadamus and Raymond-Yakoubian (2015): "Qualitative Participatory Mapping of Seal and Walrus Harvest and Habitat Areas: Documenting Indigenous Knowledge, Preserving Local Values, and Discouraging Map Misuse";** **Raanan et al. (2014): "Mental maps compared to actual spatial behavior using GPS data: A new method for investigating segregation in cities"**
8	T Th	Feb. 28 Mar. 2	The Return of Statistics Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 379-435;** **Robertson (1999): "Spatial and multivariate analysis, random sampling error, and analytical noise: empirical Bayesian methods at Teotihuacan, Mexico";** **Parkinson et al. (2014): "A GIS-based approach to documenting large canid damage to bones"**

9	T Th	Mar. 7 9	**SPRING BREAK** **NO CLASS** **NO CLASS**	
10	T Th	Mar. 14 16	Telling a Story with Maps - Cartography Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 199-221;** **Schmidt and Weiser (2012): "Web Mapping Services: Development and Trends";** **Scassa et al. (2015): "Legal Issues in Mapping Traditional Knowledge: Digital Cartography in the Canadian North";** **Roth (2013): "Interactive maps: What we know and what we need to know"**
11	T Th	Mar. 21 23	Simulations and Modeling Classroom – Lecture and Discussion Lab - Project Preparation Session	**Wilson and Fotheringham pp. 436-446;** **Pontius et al. (2007): "Accuracy Assessment for a Simulation Model of Amazonian Deforestation";** **Wilkinson et al. (2013) pp. 1-8, 255-275: "Models of Mesopotamian Landscapes"**
12	T Th	Mar. 28 30	Project Preparation Lab - Project Preparation Session Lab - Project Preparation Session	
13	T Th	Apr. 4 6	Project Preparation Lab - Project Preparation Session Lab - Project Preparation Session	

14	T Th	Apr. 11 13	**STUDENT PRESENTATIONS** **STUDENT PRESENTATIONS**	
15	T Th	Apr. 18 20	**STUDENT PRESENTATIONS** **STUDENT PRESENTATIONS**	
16	T Th	Apr. 25 27	**STUDENT PRESENTATIONS** **STUDENT PRESENTATIONS**	
Finals	T	May 2	**ASSIGNMENT DUE AT START OF CLASS** **Tuesday May 2** **Undergraduate Final Project Report (10 pages)**	

ANG5XXX: Advanced GIS Methods in Anthropology

Department of Anthropology
College of Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	*Scott Branting*	*Term:*	*Spring 2017*
Office:	*Phillips Hall 409-O*	*Credit Hours*	*3*
Phone:	*(407) 823-4962*	*Class Meeting Days:*	*Tu, Thr*
E-Mail:	*scott.branting@ucf.edu*	*Class Meeting Hours:*	*10:30am – 12:00pm*
Website:	*Canvas*	*Class Location:*	*TBD*
Office Hours:	*TBD or by appointment*	*TA:*	*TBD*
		TA email:	*TBD*

University Course Catalog Description

This course provides an advanced introduction to Geographic Information Systems (GIS) methods from an anthropological perspective. This course is part of a two course sequence with GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS undergraduate certificate.

Course Overview

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Course Prerequisites

ANG5xxx: GIS Methods in Anthropology or consent of instructor

Required Text and Articles

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Assignments	*Due Date*	*Percent of Grade*	*Max. Points*
Syllabus Quiz	By Friday, Week 1 at 5pm	1% and federal verification requirement	1
Prepare and lead assigned classroom discussions and team activities while merely participating in others	In class on assigned weeks	9%	9
Graduate Final Project Report	Tuesday of Finals Week	70%	70
Oral Presentation of Project	Assigned Class Period in Weeks 14,15, and 16	20%	20

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Course Policies

Student Conduct

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If you miss a lecture it is your responsibility to obtain notes from a fellow classmate. I will not provide notes or a copy of any lecture or activity.

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Incomplete grades are only given when an unexpected and documented emergency situation prevented a student from completing the remaining work at the time when the emergency occurred. I have the right to make the final decision on whether or not to issue an incomplete, rather than submitting a final grade based upon your completed work. Incomplete work must be finished by the end of the next semester or the "I" will automatically become an "F" on your transcript.

Course Schedule

This syllabus is tentative and I may make reasonable schedule modifications to meet the goals of the class. Articles will be posted on the course website or provided in class.

Week	Day	Date	Topic Assignments Due	Reading Assignments
1	T Th	Jan. 10 12	Introduction to Class and Project Outline Classroom - Introduction Lab - Project Preparation Session ASSIGNMENT: Syllabus Quiz due Fri. 13th, 5pm	Wilson and Fotheringham pp. 11-34
2	T Th	Jan. 17 19	Monitoring Anthropological Phenomena from Space Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 49-60; Parcak (2015): "Remote Sensing with Satellite Technology"; Sun et al. (2015) "Quantifying spatiotemporal patterns of urban expansion in three capital cities in Northeast China over the past three decades using satellite data sets"; De Vos et al. (2008) "Images of war: using satellite images for human rights monitoring in Turkish Kurdistan"; Joshi et al. (2015) "Mapping dynamics of deforestation and forest degradation in tropical forests using radar satellite data"

3	T Th	Jan. 24 26	Databases and Large Datasets Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 35-48, 80-93, 111-143; Exeter et al. (2014): "'Whose data is it anyway?' The implications of putting small area-level health and social data online"; Ono and Sullivan (2013): "Manufacturing Plants'Use of Temporary Workers: An Analysis Using Census Microdata"
4	T Th	Jan. 31 Feb. 2	Field Methodologies for Generating Geospatial Data Classroom – Lecture and Discussion Lab - Project Preparation Session	Strandburg-Peshkin et al. (2015): "Shared decision-making drives collective movement in wild baboons"; White (2013): "LIDAR, Point Clouds, and Their Archaeological Applications"; Calabrese et al. (2010): "The Geography of Taste: Analyzing Cell-Phone Mobility and Social Events"
5	T Th	Feb. 7 9	Digital Terrain Generation – From Plane Tables to LiDAR Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 49-60, 417-435; Smith (2003): "Urban remote sensing: the use of LiDAR in the creation of physical urban models"; Chase et al. (2013): "The Use of LiDAR at the Maya Site of Caracol, Belize."

6	T Th	Feb. 14 16	Engagement with People and Societies Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 466-493; Brovelli et al. (2015): "Public participation in GIS via mobile applications"; Brown et al. (2014): "Assessing the value of public lands using public participation GIS (PPGIS) and social landscape metrics"
7	T Th	Feb. 21 23	More Qualitative Analysis Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 352-366; Tobler and Wineburg (1971): "A Cappadocian Speculation"; Gadamus and Raymond-Yakoubian (2015): "Qualitative Participatory Mapping of Seal and Walrus Harvest and Habitat Areas: Documenting Indigenous Knowledge, Preserving Local Values, and Discouraging Map Misuse"; Raanan et al. (2014): "Mental maps compared to actual spatial behavior using GPS data: A new method for investigating segregation in cities"
8	T Th	Feb. 28 Mar. 2	The Return of Statistics Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 379-435; Robertson (1999): "Spatial and multivariate analysis, random sampling error, and analytical noise: empirical Bayesian methods at Teotihuacan, Mexico"; Parkinson et al. (2014): "A GIS-based approach to documenting large canid damage to bones"

9	T Th	Mar. 7 9	SPRING BREAK NO CLASS NO CLASS	
10	T Th	Mar. 14 16	Telling a Story with Maps - Cartography Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 199-221; Schmidt and Weiser (2012): "Web Mapping Services: Development and Trends"; Scassa et al. (2015): "Legal Issues in Mapping Traditional Knowledge: Digital Cartography in the Canadian North"; Roth (2013): "Interactive maps: What we know and what we need to know"
11	T Th	Mar. 21 23	Simulations and Modeling Classroom – Lecture and Discussion Lab - Project Preparation Session	Wilson and Fotheringham pp. 436-446; Pontius et al. (2007): "Accuracy Assessment for a Simulation Model of Amazonian Deforestation"; Wilkinson et al. (2013) pp. 1-8, 255-275: "Models of Mesopotamian Landscapes"
12	T Th	Mar. 28 30	Project Preparation Lab - Project Preparation Session Lab - Project Preparation Session	
13	T Th	Apr. 4 6	Project Preparation Lab - Project Preparation Session Lab - Project Preparation Session	

14	T Th	Apr. 11 13	STUDENT PRESENTATIONS STUDENT PRESENTATIONS	
15	T Th	Apr. 18 20	STUDENT PRESENTATIONS STUDENT PRESENTATIONS	
16	T Th	Apr. 25 27	STUDENT PRESENTATIONS STUDENT PRESENTATIONS	
Finals	T	May 2	ASSIGNMENT DUE AT START OF CLASS Tuesday May 2 Graduate Final Project Report (15 pages)	

Biology

Lisa Haas

From: Scott Branting
Sent: Wednesday, October 07, 2015 9:59 AM
To: Lisa Haas
Subject: FW: Anthropology GIS courses

From: John Weishampel
Sent: Wednesday, October 07, 2015 8:26 AM
To: Scott Branting
Subject: Anthropology GIS courses

Scott,

As the primary instructor of GIS courses in the Department of Biology, I welcome additional GIS courses to be taught by the Department of Anthropology. Both our undergraduate and graduate students will benefit by having a breadth of regularly taught GIS courses. The skills provided by these courses will help them understand fundamental spatial relationships that can be applied to biological/ecological questions and the anthropological emphasis will provide background for relating the human dimension to ecological systems.

I am looking forward to having these courses available.

John

John F. Weishampel
Professor of Biology & Director of
Geospatial Analysis and Modeling of Ecological Systems (GAMES) Lab
Department of Biology
University of Central Florida
Orlando, FL 32816-2368
Voice: (407) 823-6634
Fax: (407) 823-5769
E-mail: John.Weishampel@ucf.edu
Website: games.cos.ucf.edu

GAMES LAB
Geospatial Analysis & Modeling of Ecological Systems

Sociology

Lisa Haas

From: Scott Branting
Sent: Wednesday, October 07, 2015 9:53 PM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Timothy Hawthorne
Sent: Wednesday, October 07, 2015 9:20 PM
To: Scott Branting; Yingru Li
Cc: John Walker
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Hi Scott and John,

As one of the new GIS cluster hires, I am pleased to see the development of these new GIS courses in Anthropology. These courses are particularly useful in their ability to attract students from all majors. In my mind, they serve as complementary courses to what we plan to offer in SOC and will strengthen the course offerings in our new GIS certificate programs. I see no conflicts with SOC GIS courses and am pleased to support the development of these courses in any way that I can if needed.

Best,
Tim Hawthorne
UCF Sociology

Sociology

Lisa Haas

From: Scott Branting
Sent: Wednesday, October 07, 2015 10:12 PM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Yingru Li
Sent: Wednesday, October 07, 2015 10:10 PM
To: Timothy Hawthorne; Scott Branting
Cc: John Walker
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Hi Scott and John,

Both courses look interesting. They will enrich our GIS curriculum and strengthen our efforts in developing the new GIS certificate programs. I strongly support both courses going forward.

Best,
Yingru

Yingru Li, Ph.D.
Assistant Professor of GIS
Department of Sociology
University of Central Florida
Orlando, FL

Public Admin

Lisa Haas

From: Scott Branting
Sent: Thursday, October 08, 2015 9:28 AM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Albert Hill
Sent: Thursday, October 08, 2015 9:26 AM
To: Scott Branting; Mira Bourova
Cc: John Walker
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Scott,
I have reviewed your course materials and see no issues or problems with these courses being added to the mix and certainly no conflict with my course offering in the Public Administration Department. On the contrary, additional courses employing GIS will only serve to strengthen efforts to offer serious and regionally accepted certificate programs for those wishing to pursue this technology professionally. As the effort towards these certificate programs matures however we as a collective group of instructors, need to ensure the same basic skills are imparted to participants regardless of their path through the courses.
Best regards,
Al

Al Hill, GISP, CPM
Volusia County GIS Manager
Ph 386-736-5973 x13470
email ahill@volusia.org

Adjunct Instructor
Department of Public Administration

Political Science

Lisa Haas

From: Scott Branting
Sent: Monday, October 12, 2015 11:54 AM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Barbara Kinsey
Sent: Monday, October 12, 2015 11:50 AM
To: Scott Branting
Cc: Kerstin Hamann
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Dear Scott,

Your proposed courses look very good, and they do not raise any problems with the GIS courses in political science; the GIS political science courses include two courses, one undergraduate (**POS 4764 GIS for Political Science**) and one graduate (**POS 6743 Geographic Tools for Political Science Research**). The undergraduate course could fit either in the core (as an intro) or in the electives; the graduate course would fit best in the set of electives. That is, I agree that we should have multiple courses that can serve as core and elective possibilities to support the undergraduate and graduate certificates.

The department approves the new courses proposed in Anthropology with the understanding that we may develop additional GIS courses in the future.

If you have any questions please let me know.

Thank you.

Best regards,
Barbara

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

Split-Level Class Action Request Form

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 compel 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. In addition, it is important to differentiate each of the undergraduate and graduate course elements. To provide reviewers with a clear delineation of the differences between the 4000 and 5000 courses, Summary Tables 1 and 2 should be completed.

Please submit this form along with the completed Course Action Request (CAR) form. Include both the 4000 syllabus and the 5000 syllabus. **The 5000 syllabus should bold any additions or differences.**

Provide narrative rationale for split-level class:

The introduction to the application of GIS methods within Anthropology, which this course provides, is needed by graduate students entering our graduate programs who lack these skills prior to taking further graduate coursework. Given the intensive, hands-on nature of the practicum component, necessary for teaching our graduate students these skills, it is more effective to teach this course as a formalized course rather than having them each take this as their own as an independent study course. Therefore, we would like to offer this course as a split-level course to allow graduate students to take this course within the more formalized classroom setting. This course is part of a two course sequence with GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS graduate certificate. A split-level course is being proposed because the additional work and leadership role in the graduate level course will be over and above what is expected for the majority of undergraduates completing the 4000-level course.

Table 1— 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;

or

2) in cases where entirely new objectives or content have been added to the existing undergraduate objectives and content, in the 5000 course column list any course elements that the graduate syllabus requires in addition to the elements of the undergraduate syllabus. For example, if there are 3 course readings in the undergraduate syllabus and a 4th reading was added for the graduate syllabus, list it in the 5000 course column and leave the 4000 course column blank.

Table 1 Differences Between 4000 and 5000 Course Objectives & Content

Course Element	4000 Course	5000 Course
Leadership in Discussion	Participation in discussion and demonstrating	Preparing assigned readings in order to lead the
	identification of concepts	classroom discussion with applications of the methods in
		the readings
Leadership in Class Teamwork Activities	Participating in group activities	Taking an assigned leadership role in group activities
Final Project Report	Demonstrate undergraduate level implementation	Demonstrate graduate level implementation of geospatial
	of geospatial tools to a research project and some idea	tools to research and the application of advanced interpretation
	of what the results mean	to the results achieved

Table 2—List different or additional **assessment** elements (course assignments and tests that count toward the grade). For example, if an undergraduate course assignment that requires students to read an article and write a reflection has been expanded to require graduate students to read a book and present it to the class, the two versions of this assignment would be contrasted in this table. If a third exam was added for graduate students, list it in the 5000 column.

Table 2 Differences Between 4000 and 5000 Course Assessment

Course Element	4000 Course Assessment & % of grade	5000 Course Assessment & % of grade	
Final Project Report	Preparing a basic undergraduate report	Preparing a 15 page report on their	70% of grade (70 points)
	on their research project that is 10 pages in length	research project, comparable to a	
	(70% of grade / 70 points)	report that would be submitted to	
		a project funding organization or	
		agency	
Discussion	Participation as noted in Table 1 (Portion of 9% / 9 points)	Leadership as noted in Table 1	Portion of 9% of grade (9 points)
Class Teamwork Activities	Participation as noted in Table 1 (Portion of 9% / 9 points)	Leadership as noted in Table 1	Portion of 9% of grade (9 points)

University of Central Florida

Course Action Request Form

■ Course Addition ☐ Course Revision ☐ Course Deletion

Forward to your college office

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

College: Sciences **Department:** Anthropology

Department Chair: Tosha Dupras **Phone:** 407-823-6725

Approved Graduate Faculty/Scholars: Scott Branting

	Course Prefix	Number	Title	Credit Hours Ex.: 3(3,0)
Course Prefix	ANG	5XXX	GIS Methods in Anthropology	3 (3,0)
New or Proposed Revision				

30 Char. Abbreviation: GIS Methods Anthropology

Course Description (25 word limit)

~~This course provides an~~ overview to Geographic Information Systems (GIS) methods from an anthropological perspective.

Will lab fees be charged? ☐ Yes ■ No

Repeat for credit? ☐ Yes ■ No If yes, indicate the total times this course may be used in the degree program. _____

Repeat within same semester? ☐ Yes ■ No

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.

Prerequisite(s) and/or Corequisite(s): PR: Admission to Anthropology MA program and future GIS certificate **Graded S/U?** ☐ Yes ■ No

Split-Level Class: ■ Yes ☐ No

If offering a split-level class, complete this section even if it had been approved earlier for individual delivery.

List undergraduate split-level course: ANT 4XXX GIS Methods in Anthropology

NOTE: *Both the graduate and the undergraduate split-level syllabi must be approved through the established university process for approving courses so that there are two separate and complete syllabi for each course. The graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor. Attach both undergraduate and graduate syllabi to this form.*

Term of Offering
When will course be offered?

☐ Odd Fall ☐ Odd Spring ☐ Odd Summer ☐ Every Semester

■ Even Fall ☐ Even Spring ☐ Even Summer ☐ Occasional

Intended Utilization of Course
The course will be used primarily as:

■ Required Courses ■ Elective Courses

Justification for Course Addition or Course Revision

What is the rationale for adding/changing this course?

Provides students with the ability to understand and apply anthropological perspectives using geographic information systems. The GIS cluster certificate will require 2 courses that will both be at the 4000/5000 level for each department.

What majors require or recommend this course for graduation? Anthropology MA and future GIS certificate students

If not a major requirement, what will be the source of students? Anthropology MA and future GIS certificate students

What is the estimated annual enrollment? 5

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

Approvals received from Biology, Sociology, COHPA, and Political Science are attached.

Justification for Course Deletion

Is this course a required course for graduation in a major or prerequisite? ☐ Yes ☐ No

If yes, have the involved major departments been informed, in writing, of proposed deletion? ☐ Yes ☐ No

If not, explain:Course Description (25 word limit)

Notes:

Approval Signatures

Department Chair _____ **Date** 10-16-15

College Academic Standards _____ **Date** _____

College Dean _____ **Date** _____

Graduate Council _____ **Date** _____

Graduate Dean _____ **Date** _____

ANT4XXX: GIS Methods in Anthropology

Department of Anthropology
College of Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	*Scott Branting*	*Term:*	*Fall 2016*
Office:	*Phillips Hall 409-O*	*Credit Hours*	*3*
Phone:	*(407) 823-4962*	*Class Meeting Days:*	*Tu, Thr*
E-Mail:	*scott.branting@ucf.edu*	*Class Meeting Hours:*	*10:30am – 12:00pm*
Website:	*Canvas*	*Class Location:*	*TBD*
Office Hours:	*TBD or by appointment*	*TA:*	*TBD*
		TA email:	*TBD*

University Course Catalog Description

This course provides an overview to Geographic Information Systems (GIS) methods from an anthropological perspective. This course is part of a two course sequence with Advanced GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS undergraduate certificate.

Course Overview

This course will expose you to both numerous spatial theories underlying GIS analysis as well as to the geospatial methodologies, tools, and theories used to collect and analyze spatial data within an anthropological perspective. It is relevant to anyone who may need to conduct anthropological research that includes consideration of data within a spatial context. This course is comprised of both a classroom and a laboratory component. The classroom component will consist of lectures and discussions, while the laboratory component will allow you to get hands-on experience applying the concepts discussed in class to anthropological data. This course is part of a two course sequence with Advanced GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS undergraduate certificate.

Course Objectives

In this course, students will gain skills in:

- Project design: including generating and analyzing geospatial data
- Writing: including designing research and writing grants related to geospatial analysis
- Public speaking through the presentation of their research designs and their data analyses
- Interdisciplinarity: including evaluating and correlating data derived from a variety of sources, as well as assessing research in several disciplines.

Course Prerequisites

None

Required Text and Articles

Many readings in this course take the form of journal articles, which are available through the UCF Library web site. In cases where a reading is not available for electronic download, a copy of the reading will be made available through the course website on Webcourses@UCF. The following texts are also required for the course:

- Parcak, S.H. (2009): Satellite Remote Sensing for Archaeology. New York: Routledge.
- Steinberg, S.L. & Steinberg, S.J. (2015): GIS Research methods: Incorporating Spatial Perspectives. Redlands: Esri Press.
- Wheatley, D. G., & Gillings, M. M. (2002): Spatial technology and archaeology. The archaeological applications of GIS. New York: Taylor and Francis.

Basis for Final Grade

Your grade will be based upon your laboratory exercises (40%), participation in classroom discussions and team activities (4%), the syllabus quiz (1%), a written grant application based on the provided undergraduate application form (45%), a short presentation of that application to the entire class (10%). Laboratory exercises will be due at the start of class the week after they were handed out. Failure to hand it in assignments on the due date, in the absence of a pre-accepted excuse, will result in a score of (0) for that assignment. Presentation times during the final week of class will be scheduled later in the class. Failure to present at that time, in the absence of a pre-accepted excuse, will result in a score of (0) for the presentation.

Assignments	*Due Date*	*Percent of Grade*	*Max. Points*
Syllabus Quiz	By Friday, Week 1 at 5pm	1% and federal verification requirement	1
Laboratory Exercises	Start of Thursday class in the following week	40%	40
Participation in Classroom Discussions and Team Activities	In class each Tuesday	4%	4
Undergraduate Grant Application	Tuesday of Finals Week	45%	45
Oral Presentation of Project	Assigned Class Period in Weeks 15 and 16	10%	10

The syllabus quiz also completes the verification requirement for students who receive federal financial aid. Verification of student engagement is required to support UCF's compliance with federal financial aid regulations. The regulations state that without verification of student engagement at the start of each course in which a student is enrolled, students will not receive their student aid. UCF is required to verify that every student enrolled in every course meets this regulation. All students, whether or not you receive federal student aid, are required to complete the syllabus quiz by 5pm on the Friday of first week.

Letter Grade	*Points*
A	93 – 100 points
A-	90 – 92 points
B+	87 – 89 points
B	83 – 86 points
B-	80 – 82 points
C+	77 – 79 points
C	73 – 76 points
C-	70 – 72 points
D+	67 – 69 points
D	63 – 66 points
D-	60 – 62 points
F	59 and below

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Student Conduct

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Grades of "Incomplete"

Incomplete grades are only given when an unexpected and documented emergency situation prevented a student from completing the remaining work at the time when the emergency occurred. I have the right to make the final decision on whether or not to issue an incomplete, rather than submitting a final grade based upon your completed work. Incomplete work must be finished by the end of the next semester or the "I" will automatically become an "F" on your transcript.

Course Schedule

This syllabus is tentative and I may make reasonable schedule modifications to meet the goals of the class. Articles will be posted on the course website or provided in class.

Week	Day	Date	Topic Assignments Due	Reading Assignments
1	T Th	Aug. 23 25	Course Introduction Lab Introduction – Introduction to ArcGIS ASSIGNMENT: Syllabus Quiz due Fri. 26th, 5pm	Wheatley and Gillings pp. 1-58;
2	 T Th	Aug. 30 Sept 1	GIS in Social Science Research Classroom session Lab – Introduction to GIS Lab	Steinberg and Steinberg (2015) pp. 1-58.
3	 T Th	Sept 6 8	Research Design and Geospatial Methodologies Classroom session Lab – GIS Data Lab ASSIGNMENT: Introduction to GIS Lab Due, Thursday Sept 8 at start of class	Wheatley and Gillings pp. 59-88, 107-124; Parcak pp. 13-39 and 173-204; Steinberg and Steinberg pp. 59-140
4	 T Th	Sept 13 15	Remote Sensing Classroom session Lab – Remote Sensing Lab ASSIGNMENT: Introduction to GIS Lab Due, Thursday Sept 15 at start of class	Parcak pp. 41-146, 205-232; Rindfuss et al. (2003): "Linking Household and Remotely Sensed Data"; Walsh et al. (2003): "Integration of Longitudinal Surveys, Remote Sensing Time Series, and Spatial Analyses"

5	T Th	Sept 20 22	Qualitative Data – Integrating Text and Images Classroom session Lab – Textual Integration Lab ASSIGNMENT: GIS Data Lab Due, Thursday Sept 22 at start of class	Steinberg and Steinberg pp. 141-190; Kwan and Ding (2008): "Geo-narrative: Extending geographic information systems for narrative analysis in qualitative and mixed-method research"
6	T Th	Sept 27 29	Perception Theory – Viewsheds, Soundsheds, Smellsheds Classroom session Lab – Perception Theory Lab ASSIGNMENT: Textual Integration Lab Due, Thursday Sept 29 at start of class	Wheatley and Gillings pp. 201-216; Exon et al. (2000): Stonehenge Landscapes Ingold (2000): "The Perception of the Environment" pp. 1-88, 243-288; Nutsford et al. (2015): "Personalizing the Viewshed: Visibility Analysis from the Human Perspective"; Robbins (2003): "Beyond Ground Truth: GIS and the Environmental Knowledge of Herders, Professional Foresters, and Other Traditional Communities"
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8	T Th	Oct 11 13	Location Theories – Boundaries, Borderlands, Central places, Spatial Hierarchies Classroom session Lab – Location Theory Lab ASSIGNMENT: Transportation Lab Due, Thursday Oct 13 at start of class	Wheatley and Gillings pp. 147-164; Salisbury and Weinstein (2014): "Cultural Diversity in the Amazon Borderlands: Implications for Conservation and Development"; Yasenovskiy and Hodgson (2007): "Hierarchical Location-Allocation with Spatial Choice Interaction Modeling"
9	T Th	Oct 18 20	Demographic Theories – Population, Densities, Settlements Classroom session Lab – Demography Theory Lab ASSIGNMENT: Location Theory Lab Due, Thursday Oct 20 at start of class	Naroll (1962): "Floor Area and Settlement Population"; Voss (2007): "Demography as a Spatial Social Science"; Reibel (2007): "Geographic Information Systems and Spatial Data Processing in Demography: a Review";
10	T Th	Oct 25 27	Spatial Analysis and Spatial Statistics Classroom session Lab – Spatial Analysis Lab ASSIGNMENT: Demography Theory Lab Due, Thursday Oct 27 at start of class	Wheatley and Gillings pp. 89-106, 125-146, 183-200; Steinberg and Steinberg pp. 265-328; Austin et al. (2005): "Clustering of fast-food restaurants around schools: a novel application of spatial statistics to the study of food environments"; **Stančič and Veljanovski** (2000): "Understanding Roman settlement patterns through multivariate statistics and predictive modeling"; Zolnik (2009): "Context in Human Geography: A Multilevel Approach to Study Human-Environment Interactions"

11	 T Th	Nov 1 3	Hydrology, Environment and Modeling and Simulation Classroom session Lab – Hydrology and Modeling Lab ASSIGNMENT: Spatial Analysis Lab Due, Thursday Nov 3 at start of class	Wilkinson (2003): "Archaeological Landscapes of the Near East" pp. 15-32 and 71-99; Kiage and Liu (2009): "Palynological Evidence of Climate Change and Land Degradation in the Lake Baringo Area, Kenya, East Africa, since AD 1650"; Wheatley and Gillings pp. 165-180; Mulligan and Wainwright (2004): "Modelling and Model Building"; Sellers et al. (2007): "An agent-based model of group decision making in baboons"
12	 T Th	Nov 8 10	Visualization and Virtual Reality Classroom session Lab – Visualization Lab ASSIGNMENT: Spatial Analysis Lab Due, Thursday Nov 10 at start of class	Cummings (2008): "Virtual Reality, Visual Envelopes, and Characterizing Landscape"; Narahara (2007): "Enactment Software: Spatial Designs Using Agent-Based Models"; Traser (2007): "Bringing Time and Change to Life in the Visualization of Greek Architecture";
13	 T Th	Nov 15 17	Visualization and Virtual Reality 2 Proposal Preparation Class Lab – Visualization Projects Showing ASSIGNMENT: Visualization Lab Due, Thursday Nov 17 at start of class	Forte (2006): "A Digital 'cyber' protocol for the reconstruction of the archaeological landscape: virtual reality and mindscapes"; Wyeld (2007): "Visualising Australian Indigenous Knowledge Practices Using the Game Engine"; Weber (2014): "Virtual Anthropology"

14	T Th	Nov 22 24	Proposal Preparation Proposal Preparation Class NO CLASS - THANKSGIVING	
15	T Th	Nov 29 Dec 1	STUDENT PRESENTATIONS STUDENT PRESENTATIONS	
16	T Th	Dec 6 8	STUDENT PRESENTATIONS STUDENT PRESENTATIONS	
Finals	T	Dec 12	ASSIGNMENT DUE AT START OF CLASS Tuesday Dec 12 Undergraduate Grant Application (8 pages)	

ANG5XXX: GIS Methods in Anthropology

Department of Anthropology
College of Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	*Scott Branting*	*Term:*	*Fall 2016*
Office:	*Phillips Hall 409-O*	*Credit Hours*	*3*
Phone:	*(407) 823-4962*	*Class Meeting Days:*	*Tu, Thr*
E-Mail:	*scott.branting@ucf.edu*	*Class Meeting Hours:*	*10:30am – 12:00pm*
Website:	*Canvas*	*Class Location:*	*TBD*
Office Hours:	*TBD or by appointment*	*TA:*	*TBD*
		TA email:	*TBD*

University Course Catalog Description

This course provides an introduction to Geographic Information Systems (GIS) methods from an anthropological perspective. This course is part of a two course sequence with Advanced GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS undergraduate certificate.

Course Overview

This course will expose you to both numerous spatial theories underlying GIS analysis as well as to the geospatial methodologies, tools, and theories used to collect and analyze spatial data within an anthropological perspective. It is relevant to anyone who may need to conduct anthropological research that includes consideration of data within a spatial context. This course is comprised of both a classroom and a laboratory component. The classroom component will consist of lectures and discussions, while the laboratory component will allow you to get hands-on experience applying the concepts discussed in class to anthropological data. This course is part of a two course sequence with Advanced GIS Methods in Anthropology and fulfills the two-course core requirement for the proposed GIS undergraduate certificate.

Course Objectives

In this course, students will gain skills in:

- Project design: including generating and analyzing geospatial data
- Writing: including designing research and writing grants related to geospatial analysis
- Public speaking through the presentation of their research designs and their data analyses
- Interdisciplinarity: including evaluating and correlating data derived from a variety of sources, as well as assessing research in several disciplines.

Course Prerequisites

None

Required Text and Articles

Many readings in this course take the form of journal articles, which are available through the UCF Library web site. In cases where a reading is not available for electronic download, a copy of the reading will be made available through the course website on Webcourses@UCF. The following texts are also required for the course:

- Parcak, S.H. (2009): Satellite Remote Sensing for Archaeology. New York: Routledge.
- Steinberg, S.L. & Steinberg, S.J. (2015): GIS Research methods: Incorporating Spatial Perspectives. Redlands: Esri Press.
- Wheatley, D. G., & Gillings, M. M. (2002): Spatial technology and archaeology. The archaeological applications of GIS. New York: Taylor and Francis.

Basis for Final Grade

Your grade will be based upon your laboratory exercises (40%), leading group discussions or team activities (4%), the syllabus quiz (1%), a written NSF style grant proposal (45%), and a short presentation of that proposal to the entire class (10%). Laboratory exercises will be due at the start of class the week after they were handed out. Failure to hand it in assignments on the due date, in the absence of a pre-accepted excuse, will result in a score of (0) for that assignment. Presentation times during the final week of class will be scheduled later in the class. Failure to present at that time, in the absence of a pre-accepted excuse, will result in a score of (0) for the presentation.

Assignments	*Due Date*	*Percent of Grade*	*Max. Points*
Syllabus Quiz	By Friday, Week 1 at 5pm	1% and federal verification requirement	1
Laboratory Exercises	Start of Thursday class in the following week	40%	40
Prepare and lead assigned classroom discussions and team activities while merely participating in others	In class each Tuesday	4%	4
NSF Style Grant Application	Tuesday of Finals Week	45%	45
Oral Presentation of Project	Assigned Class Period in Weeks 15 and 16	10%	10

The syllabus quiz also completes the verification requirement for students who receive federal financial aid. Verification of student engagement is required to support UCF's compliance with federal financial aid regulations. The regulations state that without verification of student engagement at the start of each course in which a student is enrolled, students will not receive their student aid. UCF is required to verify that every student enrolled in every course meets this regulation. All students, whether or not you receive federal student aid, are required to complete the syllabus quiz by 5pm on the Friday of first week.

Letter Grade	*Points*
A	93 – 100 points
A-	90 – 92 points
B+	87 – 89 points
B	83 – 86 points
B-	80 – 82 points
C+	77 – 79 points
C	73 – 76 points
C-	70 – 72 points
D+	67 – 69 points
D	63 – 66 points
D-	60 – 62 points
F	59 and below

Course Policies

Student Conduct

All student conduct must conform to the purpose of this class, which is to provide a welcoming and inclusive environment for the learning and sharing knowledge. This will require civility and respect for each other during lectures and discussions, as well as trust and cooperation between you and me. Cheating, plagiarism, and disruptive behavior will, therefore, not be tolerated in class. If your behavior in class is being disruptive (e.g. talking, violating the electronic device policy, arriving late, distracting other students), I may use my right as instructor to ask you to leave the class. If a student habitually disturbs the class I also reserve the right to reduce their final course grade by up to 10%. Plagiarism and cheating are particularly serious offenses. Penalties for plagiarism or cheating can include a failing grade on 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://z.ucf.edu/. All students are required to follow the Rules of Conduct found within the Golden Rule, the University of Central Florida's Student Handbook (www.goldenrule.sdes.ucf.edu). Violations of these rules may result in a record of the infraction being placed in your file. Confirmation of such incidents may result in expulsion from the University.

Disability Accessibility

Both I and the University of Central Florida are committed to providing reasonable accommodations for people with disabilities. Students who need accommodations in this course must first register with Student Accessibility Services (sas.sdes.ucf.edu) and should also speak with me at the start of the semester to discuss needed accommodations. The Student Accessibility Services office is available to also provide you with a wide range of assistance beyond this course setting.

University Writing Center: The University Writing Center (uwc.cah.ucf.edu) is a free resource for UCF students. If you require assistance with any part of the writing process, they have trained consultants who can help you if you plan ahead. Since written assignments comprise a large percentage of your grade for this course, I would encourage you to seek out their assistance if you require it.

Electronic Device Policy

Students learn in different ways and are comfortable with different technologies. You are welcome to use a computer, tablet, smartphone or similar device in class meetings for note taking. You may not, however, use these devices for non-course-related purposes including: phone calls, texting, checking emails, and making use of the internet. If you wish to use them to record a lecture you need to ask about this in advance. You may also not use the device in any way that is distracting to other students in the classroom. If you are found to be doing so, you will be asked to put away the device and will not be permitted to use devices in class from that point forward. The use of a device to send or receive a call or message is not permitted in class at any point unless there is an emergency. Please be sure these devices are silenced, in accordance with University policy, and in your pocket or bag for the duration of the class.

Attendance

Attendance at class meetings is important for an understanding of course materials and for success in this class. I will not take formal class attendance, although I may keep a record of attendance of individual students at my discretion if it is warranted based on class performance. I expect that students attend class regularly and I will not provide class notes or lecture slides to students for class periods that students miss. In addition, if you are not in attendance on days when you may be presenting, without a pre-accepted excuse, you will receive a score of (0) for that assignment.

Updates and Notifications

The course website on Webcourses will be used for any general notifications or updates to this course, including changes to this syllabus.

Obtaining Notes for Missed Lectures

If you miss a lecture it is your responsibility to obtain notes from a fellow classmate. I will not provide notes or a copy of any lecture or activity.

Grades of "Incomplete"

Incomplete grades are only given when an unexpected and documented emergency situation prevented a student from completing the remaining work at the time when the emergency occurred. I have the right to make the final decision on whether or not to issue an incomplete, rather than submitting a final grade based upon your completed work. Incomplete work must be finished by the end of the next semester or the "I" will automatically become an "F" on your transcript.

Course Schedule

This syllabus is tentative and I may make reasonable schedule modifications to meet the goals of the class. Articles will be posted on the course website or provided in class.

Week	Day	Date	Topic Assignments Due	Reading Assignments
1	T Th	Aug. 23 25	Course Introduction Lab Introduction – Introduction to ArcGIS ASSIGNMENT: Syllabus Quiz due Fri. 26th, 5pm	Wheatley and Gillings pp. 1-58;
2	 T Th	Aug. 30 Sept 1	GIS in Social Science Research Classroom session Lab – Introduction to GIS Lab	Steinberg and Steinberg (2015) pp. 1-58.
3	 T Th	Sept 6 8	Research Design and Geospatial Methodologies Classroom session Lab – GIS Data Lab ASSIGNMENT: Introduction to GIS Lab Due, Thursday Sept 8 at start of class	Wheatley and Gillings pp. 59-88, 107-124; Parcak pp. 13-39 and 173-204; Steinberg and Steinberg pp. 59-140
4	 T Th	Sept 13 15	Remote Sensing Classroom session Lab – Remote Sensing Lab ASSIGNMENT: Introduction to GIS Lab Due, Thursday Sept 15 at start of class	Parcak pp. 41-146, 205-232; Rindfuss et al. (2003): "Linking Household and Remotely Sensed Data"; Walsh et al. (2003): "Integration of Longitudinal Surveys, Remote Sensing Time Series, and Spatial Analyses"

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Finals	 T	Dec 12	 ASSIGNMENT DUE AT START OF CLASS Tuesday Dec 12 NSF Style Grant Application (10 pages)	

Biology

Lisa Haas

From: Scott Branting
Sent: Wednesday, October 07, 2015 9:59 AM
To: Lisa Haas
Subject: FW: Anthropology GIS courses

From: John Weishampel
Sent: Wednesday, October 07, 2015 8:26 AM
To: Scott Branting
Subject: Anthropology GIS courses

Scott,

As the primary instructor of GIS courses in the Department of Biology, I welcome additional GIS courses to be taught by the Department of Anthropology. Both our undergraduate and graduate students will benefit by having a breadth of regularly taught GIS courses. The skills provided by these courses will help them understand fundamental spatial relationships that can be applied to biological/ecological questions and the anthropological emphasis will provide background for relating the human dimension to ecological systems.

I am looking forward to having these courses available.

John

John F. Weishampel
Professor of Biology & Director of
Geospatial Analysis and Modeling of Ecological Systems (GAMES) Lab
Department of Biology
University of Central Florida
Orlando, FL 32816-2368
Voice: (407) 823-6634
Fax: (407) 823-5769
E-mail: John.Weishampel@ucf.edu
Website: games.cos.ucf.edu

GAMES LAB
Geospatial Analysis & Modeling of Ecological Systems

Sociology

Lisa Haas

From: Scott Branting
Sent: Wednesday, October 07, 2015 9:53 PM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Timothy Hawthorne
Sent: Wednesday, October 07, 2015 9:20 PM
To: Scott Branting; Yingru Li
Cc: John Walker
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Hi Scott and John,

As one of the new GIS cluster hires, I am pleased to see the development of these new GIS courses in Anthropology. These courses are particularly useful in their ability to attract students from all majors. In my mind, they serve as complementary courses to what we plan to offer in SOC and will strengthen the course offerings in our new GIS certificate programs. I see no conflicts with SOC GIS courses and am pleased to support the development of these courses in any way that I can if needed.

Best,
Tim Hawthorne
UCF Sociology

Sociology

Lisa Haas

From: Scott Branting
Sent: Wednesday, October 07, 2015 10:12 PM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Yingru Li
Sent: Wednesday, October 07, 2015 10:10 PM
To: Timothy Hawthorne; Scott Branting
Cc: John Walker
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Hi Scott and John,

Both courses look interesting. They will enrich our GIS curriculum and strengthen our efforts in developing the new GIS certificate programs. I strongly support both courses going forward.

Best,
Yingru

Yingru Li, Ph.D.
Assistant Professor of GIS
Department of Sociology
University of Central Florida
Orlando, FL

Public Administration

Lisa Haas

From: Scott Branting
Sent: Thursday, October 08, 2015 9:28 AM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Albert Hill
Sent: Thursday, October 08, 2015 9:26 AM
To: Scott Branting; Mira Bourova
Cc: John Walker
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Scott,
I have reviewed your course materials and see no issues or problems with these courses being added to the mix and certainly no conflict with my course offering in the Public Administration Department. On the contrary, additional courses employing GIS will only serve to strengthen efforts to offer serious and regionally accepted certificate programs for those wishing to pursue this technology professionally. As the effort towards these certificate programs matures however we as a collective group of instructors, need to ensure the same basic skills are imparted to participants regardless of their path through the courses.
Best regards,
Al

Al Hill, GISP, CPM
Volusia County GIS Manager
Ph 386-736-5973 x13470
email ahill@volusia.org

Adjunct Instructor
Department of Public Administration

Political Science

Lisa Haas

From: Scott Branting
Sent: Monday, October 12, 2015 11:54 AM
To: Lisa Haas
Subject: FW: Support email request for new GIS courses in Anthropology (Oct 13th)

From: Barbara Kinsey
Sent: Monday, October 12, 2015 11:50 AM
To: Scott Branting
Cc: Kerstin Hamann
Subject: RE: Support email request for new GIS courses in Anthropology (Oct 13th)

Dear Scott,

Your proposed courses look very good, and they do not raise any problems with the GIS courses in political science; the GIS political science courses include two courses, one undergraduate (**POS 4764 GIS for Political Science**) and one graduate (**POS 6743 Geographic Tools for Political Science Research**). The undergraduate course could fit either in the core (as an intro) or in the electives; the graduate course would fit best in the set of electives. That is, I agree that we should have multiple courses that can serve as core and elective possibilities to support the undergraduate and graduate certificates.

The department approves the new courses proposed in Anthropology with the understanding that we may develop additional GIS courses in the future.

If you have any questions please let me know.

Thank you.

Best regards,
Barbara

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

Split-Level Class Action Request Form

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 compel 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. In addition, it is important to differentiate each of the undergraduate and graduate course elements. To provide reviewers with a clear delineation of the differences between the 4000 and 5000 courses, Summary Tables 1 and 2 should be completed.

Please submit this form along with the completed Course Action Request (CAR) form. Include both the 4000 syllabus and the 5000 syllabus. **The 5000 syllabus should bold any additions or differences.**

Provide narrative rationale for split-level class:

This course is well-suited for upper-level undergraduates and first-year graduate students in anthropology as it provides essential skills in archaeological data recovery and analysis, as well as opportunity for advanced scholarship. Paleoethnobotany is a highly specialized archaeological approach and campuses offering a similar course are uncommon. Therefore, early graduate students likely will not have prior training or coursework in paleoethnobotany. The course is best taught as a split-level class because it would provide training to upper-level undergraduates, but also hands-on research and writing experience essential to graduate student education. In particular, this course will be essential for graduate students entering the program to study with our faculty member in the newly established Paleoethnobotany Laboratory.

Table 1— 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;

or

2) in cases where entirely new objectives or content have been added to the existing undergraduate objectives and content, in the 5000 course column list any course elements that the graduate syllabus requires in addition to the elements of the undergraduate syllabus. For example, if there are 3 course readings in the undergraduate syllabus and a 4th reading was added for the graduate syllabus, list it in the 5000 course column and leave the 4000 course column blank.

Table 1 Differences Between 4000 and 5000 Course Objectives & Content

Course Element	4000 Course	5000 Course
Discussion Leaders	Participation in class discussions of weekly readings	Leads class discussions over weekly readings and laboratory methods
Lab Group Leader to facilitate learning	Participation in group laboratory activities	Perform role as group leader in lab
Research Project to enhance learning and experience	No project for undergraduates	Perform and report on original research or write grant proposal for original research
Project Presentation	No project for undergraduates	Prepare professional conference-quality presentation of research or topic.

Table 2—List different or additional **assessment** elements (course assignments and tests that count toward the grade). For example, if an undergraduate course assignment that requires students to read an article and write a reflection has been expanded to require graduate students to read a book and present it to the class, the two versions of this assignment would be contrasted in this table. If a third exam was added for graduate students, list it in the 5000 column.

Table 2 Differences Between 4000 and 5000 Course Assessment			
Course Element	**4000 Course Assessment & % of grade**	**5000 Course Assessment & % of grade**	
Discussions	0%	Discussion leadership (6.25%)	
Project - proposal or research report	0%	Proposal or Report (15%)	
Final presentation	0%	Final Presentation (3.75%)	
Laboratory group leadership	0%	Lab group leader (8.75%)	
Quizzes Class Participation	66.67% 8.3%	50% 6.25%	
Abstracts & discussion questions Article Presentations	16.67% 8.3%	6.25% 3.75%	
Total Points	300	400	

Print Form

UNDERGRADUATE COURSE ACTION REQUEST FORM

(Departments: Forward form to your college dean's office)

◉ New Course ○ Course Revision ○ Course Deletion

College Sciences Dept. Anthropology Course Contact Person John Schultz Phone 407-823-1180

Academic Affairs approved Instructor Neil Duncan Contact's email john.schultz@ucf.edu

	Prefix e.g. BSC	# e.g. 1020C	Course Title	Credit e.g. 4(3,2)
New Course: List new course's data	ANT	4xxx	Paleoethnobotany	3(2,1)
Revision: List Prefix, #, and changed items			Only enter title if changed	Only if changed
Deletion: List Prefix & #			Title not needed	

Important: New courses and course revisions must be accompanied by an electronic course syllabus (Word or RTF file)

For new courses, title revisions, or changed abbreviation:

30 Character Abbreviation Paleoethnobotany

For new courses or revised prerequisites: Note: All upper division courses must have prerequisites.

Prerequisites &/or Co-requisites (CR:):

PR: ANT 2140, junior standing

For new courses or revised descriptions: Note: 25 word limit.

Course Description: Provides [illegible] students with knowledge and understanding of paleoethnobotany sufficient to understand, interpret, and evaluate plant data in archaeological, paleoecological, and contemporary research.

For new courses, or courses being revised: (If Course Revision, leave blank when there is no change):

Will new/revised course be offered in the next 3 terms? **Yes** ○ **No** ◉ Term _____ (so that a special topics version will be made available)

New or revised Materials & Supply Fees? **Yes** ○ **No** ◉ (If yes, also complete the Materials and Supply Fee Request form)

Is course to be repeatable for credit? **Yes** ○ **No** ◉ (Syllabus must explain how the content changes when repeated.)

If repeatable, specify # of times accepted in major: Unlimited ☐ **or** a maximum of ___; Only if content is different ☐

(If content must be different to be accepted, the department must monitor students' audits to ensure compliance.)

Course to be graded S/U? **Yes** ○ **No** ◉ Graded NC? **Yes** ○ **No** ◉

Source of students: Who will take the course? Anthropology majors, minors, & biology Estimated annual enrollment? 36

Discussion: Possible content overlap with other departments or colleges must be discussed with appropriate parties. Provide evidence of discussions you have had. Approval from Biology attached.

Rationale: How does the addition or revision of this course contribute to the university's curriculum?

Provides students with the ability to understand and apply anthropological perspectives when studying how people of the past interacted with plants.

Term of offering on Main campus: (Mark all terms that apply, or mark Occasional). Students will expect this to be offered when indicated.

☐ Odd Fall ☒ Odd Spring ☐ Odd Summer

☐ Even Fall ☐ Even Spring ☐ Even Summer ☐ Occasional

For Course Deletions:

Rationale: Why delete this course?

Impact: If this course is required in any UCF major or is a prerequisite for any UCF course, attach evidence of discussions you have had.

Recommending Authority	Approved	Denied	Signature	Date
Department Chair	✓			10-16-15
College Academic Standards				
College Dean				
UCRC			Recommendation entered in the 4D CatalogDB	
Vice Provost and Dean of Undergraduate Studies			Approvals entered in the 4D CatalogDB	

ANT4xxx Paleoethnobotany
Department of Anthropology
University of Central Florida

Instructor:
Dr. Neil Duncan
Neil.duncan@ucf.edu
Office: 309F Howard Phillips Hall
Office hours: TBA

Course Description:
Paleoethnobotany studies the interrelationships between humans and the plant world through the archaeological record. This course will provide students with knowledge and understanding of paleoethnobotany sufficient to understand, interpret, and evaluate plant data in archaeological, paleoecological, and contemporary research. The course will cover the major approaches paleoethnobotany uses in the study of archaeobotanical remains: charred wood and plant macro-remains, pollen, phytoliths, and starch grains and explore how these data can be integrated with each other and with other dietary and environmental indicators. Laboratory sessions will provide hands-on experience in sampling and identification techniques of plant materials.

Course Objectives:
1) To help students interested in the archaeological use of plants, diet, and past environments gain the knowledge needed to understand and critique archaeobotanical data and paleoethnobotanical interpretations.
2) To provide hands-on experience working with, analyzing and interpreting archaeobotanical remains.
3) To appreciate multidisciplinary and collaborative research in modern archaeology.

Class info:
This class will be conducted as informal lecture/discussion with weekly laboratory sessions in which you will experience archaeobotanical techniques including identification procedures and microscopy. You should come to class having read ALL the assigned readings for the day and be prepared to add to the discussions. Your participation is essential.

Grading and Course Requirements
There will be 4 take-home quizzes distributed throughout the semester. These are designed to give you a chance to interpret an archaeobotanical dataset. Your work will be your own. In addition, an abstract and at least one discussion question will be prepared

for each of the *Discussion Readings* assigned each week. These will be compiled and turned in at the end of the semester. These will enhance class discussions of the readings and help you have an archive of the material you read. You will also get a chance to present at least one of the articles assigned (or a related topic of your choice approved by me in advance). Lastly, you are expected to participate in the course discussions and lab sessions.

Grading
Quizzes: 4 x 50 = 200
Abstracts and discussion questions: 50
Article Presentations: 25
Class Participation: 25
Undergraduate Total: 300 points

Text and Readings
The main text is *Paleoethnobotany, Third Edition,* by Deborah M. Pearsall (2015) Left Coast Press. Referred to as "DMP" in the readings below. Additional readings listed in the syllabus will be available on reserve.

Note: for this preliminary syllabus, chapter numbers and pages for *Paleoethnobotany* refer to the 2nd edition. Printing for the third edition is scheduled to be finished by 9/2015 (info from publisher on 8/15/15).

Course Schedule:

I. Paeleoethnobotany; Plant-Macroremains Analysis in Archaeology

Week 1
Lecture:
Introduction to the class.

Historical overview and general principles of paleoethnobotany. DMP Ch 1

Recovering Macroremains. DMP Ch 2, 11-65

Discussion Readings:
Ford, R. I. (1979). Paleoethnobotany in American Archaeology *Advances in Archaeological Method and Theory* (Vol. 2): Academic Press.

Hastorf, C. A. (1999). Recent Research in Paleoethnobotany. *Journal of Archaeological Research,* 7(1), 55-103.

Marston, J., C. Warriner, and J. D'Alpoim Guedes (2014) Paleothnobotanical Method and Theory in the Twenty-First Century. In *Method and Theory in Paleoethnobotany,* J. Marston, J. D'Alpoim Guedes, C. Warinner, eds. Boulder: University Press of Colorado.

van der Veen, Marijke (2014) The materiality of plants: plant–people entanglements. *World Archaeology* 46(5):799-812.

Lab: Intro to lab, safety, and caretaking of fragile materials

Week 2
Lecture:
Sampling for Macroremains; Issues and Directions in Recovery of Macroremains. DMP Ch 2, 66-97

Initial Processing of Samples; Building a Comparative Collection. DMP Ch 3, 99-132

Discussion Readings
Chapman, J., & Watson, P. J. (1993). The Archaic Period and the Flotation Revolution. In C. M. Scarry (Ed.), *Foraging and Farming in the Eastern Woodlands* (pp. 27-38). Gainesville: University Press of Florida.

Wagner, G. E. (1988). Comparability among recovery techniques. In C. A. Hastorf & V. S. Popper (Eds.), *Current Paleoethnobotany. Analytical Methods and Cultural Interpretations of Archaeological Plant Remains.* (pp. 17-35). Chicago: University of Chicago Press.

Lab: Macroremains

Week 3
Lecture:
Identifying seeds. DMP Ch 3, 133-140
Wood identification. DMP Ch 3, 144-153

Lab: practicum

Week 4
Lecture:
Presenting and Interpreting Results. DMP Ch 3, 188-227
Discussion Readings
Lopinot, N. and W. Woods (1993) Wood Overexploitation and the Collapse of Cahokia. In *Foraging and Farming in the Eastern Woodlands*, ed. by C. M. Scarry, pp. 206-231

Beresford-Jones, D. G., Whaley, O., Ledesma, C. A., & Cadwallader, L. (2011). Two millennia of changes in human ecology: archaeobotanical and invertebrate records from the lower Ica valley, south coast Peru. *Vegetation History and Archaeobotany*. doi: 10.1007/s00334-011-0292-4

Lab: Macroremains
Identifying fruits and roots. DMP Ch 3, 140-144, 153-162

Week 5
Lecture
In-text Case Studies; Issues and Directions in Macroremain analysis. DMP Ch 3, 227-247.

Disscussion Readings
Miksicek,C. (1987) Formation Processes of the Archaeological Record. In Advances in Archaeological Method and Theory 10, ed. by M. Schiffer, pp. 211-248.

Minnis, P. (1981)Seeds in Archaeological Sites: Sources and Some Interpretive Problems. *American Antiquity* 46:143-152.

Reddy, Seetha N. and Jon M. Erlandson. 2012. Macrobotanical food remains from a trans-Holocene sequence at Daisy Cave (CA-SMI-261), San Miguel Island, California. *J Arch Sci* 39:33-40

Sheets, P., et al. (2011) Manioc Cultivation at Ceren, El Salvador: Occasional Kitchen Garden Plant or Staple Crop? *Ancient Mesoamerica* **22**(01): 1-11.

Ugent, D., et al. (1982) Archaeological Potato Tuber Remains from the Casma Valley of Peru. *Economic Botany* **36**(2): 182-192.

Lab: Macroremains

II. Pollen in Archaeology

Week 6
Lecture:
Nature and Production of Pollen; History of Pollen Analysis. DMP Ch 4, 249-269

Barton, H. and R. Fullager 2006 Microscopy. In *Ancient Starch Research,* pp47-52. Robin Torrence and Huw Barton, eds. Left Coast Press. (slanted toward starch but useful overview of microscope techniques)

First Take-home Quiz Due (no discussion readings this week)

Lab: Pollen

Week 7
Lecture:
Field Sampling. DMP Ch 4, 270-289

Laboratory Analysis; Presenting and Interpreting Results: Stratigraphic Pollen Diagrams. DMP Ch 4, 289-315

Bryant, V.M. and R G. Hollloway (1983). The role of palynology in archaeology. Advances in archaeology Method and Theory. 6: 191-224.

Horrocks, M., et al. (1999). "Forensic palynology: Variation in the pollen content of soil on shoes and in shoeprints in soil." *Journal of Forensic Science* 44: 119-122.

Rhode, David (2003) Coprolites from Hidden Cave, revisited: evidence for site occupation history, diet and sex of occupants. Journal of Archaeological Science 30:909-922

Lab: Pollen

Week 8
Lecture:
Presenting and Interpreting Results, continued. DMP Ch 4, 316-337

Hase, Yoshitaka, Akiko Iwauchi, Utako Uchikoshiyama, Eri Noguchi and Naoko Sasaki (2012) Vegetation changes after the late period of the Last Glacial Age based on pollen analysis of the northern area of Aso Caldera in central Kyushu, Southwest Japan. *Quaternary International* 254:107-117.

Kozáková, Radka, Petr Pokorný, Vladimír Peša, Alžběta Danielisová, Katarína Čuláková and Helena Svitavská Svobodová (2015) Prehistoric human impact in the mountains of Bohemia. Do pollen and archaeological data support the traditional scenario of a prehistoric "wilderness"? *Review of Palaeobotany and Palynology* 220:29-43.

Geib, P. R. and S. J. Smith (2008) Palynology and archaeological inference: bridging the gap between pollen washes and past behavior. *Journal of Archaeological Science* 35(8):2085-2101.

Lab: Presenting and Interpreting Results

Week 9
In-text Case Studies; Issues and Directions in Pollen Analysis. DMP Ch 4, 338-353

Disscussion Readings

Fearn, M. L., & Liu, K.-b. (1995). Maize pollen of 3500 B.P. from southern Alabama. *American Antiquity, 60*(1), 109-117.

Eubanks, M. (1997). Reevaluation of the identification of ancient maize pollen from Alabama. *American Antiquity, 62*(1), 139-145.

Fearn, M. L., & Liu, K.-b. (1997). Identification of Maize pollen: Reply to Eubanks. *American Antiquity, 62*(1), 146-148.

Lab: Pollen

III. Opal Phytoliths in Archaeology

Week 10

Second Take-home Quiz Due

Lecture:
Nature and Occurrence of Phytoliths. DMP Ch 5, 355-374

Identifying Plants using Phytoliths; Phytolith Deposition; History. DMP Ch 5, 375-399

Discussion Reading:
Ball, T., , Karol Chandler-Ezell, Ruth Dickau, Neil Duncan, Thomas C. Hart, Jose Iriarte, Carol Lentfer, Amanda Logan, Houyuan Lu, Marco Madella, Deborah M. Pearsall, Dolores R. Piperno, Arlene M. Rosen, Luc Vrydaghs, Alison Weisskopf and Jianping Zhang (2015) Phytoliths as a tool for investigations of agricultural origins and dispersals around the world. *Journal of Archaeological Science.* (in press as of 8/31/15)

Lab: Phytoliths

Week 11
Lecture
Field Sampling; Laboratory Analysis. DMP Ch 5, 399-443

Scanning and Counting Procedures; Presenting and Interpreting Results. DMP Ch 5, 444-473

Discussion Readings
Harvey, E. L. and D. Q. Fuller (2005). "Investigating crop processing using phytolith analysis: the example of rice and millets." *Journal of Archaeological Science* **32**(5): 739-752.

Iriarte, J. (2003). "Assessing the feasibility of identifying maize through the analysis of cross-shaped size and three-dimensional morphology of phytoliths in the grasslands of southeastern South America." Journal of Archaeological Science **30**(9): 1085-1094.

Piperno, D. R., et al. (2000). "Phytoliths in Cucurbita and other Neotropical Cucurbitaceae and their occurrence in early archaeological sites from the lowland American tropics." *Journal of Archaeological Science* **27**(3): 193-208.

Lab: Phytoliths

Week 12
Lecture:
In-text Case Studies; Issues and Directions in Phytolith Analysis. DMP Ch 5, 473-496.

Discussion Readings
Pearsall, D. M., K. Chandler-Ezell, A. Chandler-Ezell (2003) Identifying maize in neotropical sediments and soils using cob phytoliths. Journal of Archaeological Science 30:611-627.

Rover, Irwin (2004) On transparent blindfolds□: Comments on identifying maize in Neotropical sediments and soils using cob phytoliths JAS 31:815-819

Pearsall, Deborah M., Karol Chandler-Ezell, Alex Chandler-Ezell
(2004) Maize can *still* be identified using phytoliths: response to Rovner JAS 31:1029-1038

Lab: Phytoliths

IV. Starch Grains Analysis in Archaeology

Week 13
Third Take-home Quiz Due
Lecture:
Starch grain analysis. DMP 178-182

Gott, B., H. Barton, D. Samuel, and R. Torrence (2006) Biology of Starch. In *Ancient Starch Research,* pp 35-45. Robin Torrence and Huw Barton, eds. Left Coast Press.

Lab: Starch

Week 14
Lecture:
Discussion Readings
Babot, M. Pilar (2003) Starch grain damage as an indicator of food processing. *Phytolith and starch research in the Australian-Pacific-Asian regions: the state of the art*: 69-81.

Lu, H., X. Yang, M. Ye, K. B. Liu, Z. Xia, X. Ren, L. Cai, N. Wu and T. S. Liu (2005) Culinary archaeology: Millet noodles in Late Neolithic China. *Nature* 437(7061):967-968.

Ge, W. E. I., L. I. Liu, Xingcan Chen and Zhengyao Jin (2011) Can Noodles Be Made from Millet? An Experimental Investigation of Noodle Manufacture Together with Starch Grain Analyses. *Archaeometry* 53(1):194-204.

Perry, L. (2004) Starch analyses reveal the relationship between tool type and function: an example from the Orinoco valley of Venezuela. *Journal of Archaeological Science* 31:1069-1081.

Mercader, J., T. Bennett and M. Raja (2008) Middle Stone Age starch acquisition in the Niassa Rift, Mozambique. *Quaternary Research* 70(2):283-300.

Lab: Starch

V. Multiple Indicators in Paleoethnobotany; Integrating Data

Week 15
Lecture:
Integrating Biological Data. Introduction; Indirect Indicators; Direct Indicators: gut contents and coprolites. DMP Ch 6, 497-560.

Predictions from Dietary Indicators; From Model to Reality: Two Case Studies. DMP Ch 6, 560-591.

Discussion Readings
Cadwallader, L., et al. (2012). "The Signs of Maize? A Reconsideration of What δ13C Values Say about Palaeodiet in the Andean Region." *Human Ecology* 40: 487-509.

Holst, I., et al. (2007). "Identification of teosinte, maize, and Tripsacum in Mesoamerica by using pollen, starch grains, and phytoliths." *PNAS* **104**(45): 17608-17613

Kennett, Douglas J., Dolores R. Piperno, John G. Jones, Hector Neff, Barbara Voorhies, Megan K. Walsh and Brendan J. Culleton (2010) Pre-pottery farmers on the Pacific coast of southern Mexico. *Journal of Archaeological Science* 37(12):3401-3411.

Whitney, B. S., R. Dickau, F. E. Mayle, J. H. Walker, J. D. Soto and J. Iriarte (2014) Pre-Columbian raised-field agriculture and land use in the Bolivian Amazon. *The Holocene* 24(2):231-241.

Morehart, Christopher T. and Shanti Morell-Hart (2013) Beyond the Ecofact: Toward a Social Paleoethnobotany in Mesoamerica. *Journal of Archaeological Method and Theory.*

Lab: Student Presentations

Week 16

Final Exam Day TBA: *Fourth Take-home Quiz Due*

Lisa Haas

From: John Schultz
Sent: Monday, October 05, 2015 7:42 AM
To: Lisa Haas
Subject: FW: Proposed Paleoethnobotany Course from Anthropology

Response from Bio

From: Graham Worthy
Sent: Friday, October 02, 2015 5:47 PM
To: John Schultz <John.Schultz@ucf.edu>
Subject: Re: Proposed Paleoethnobotany Course from Anthropology

Hi John
Biology sees no conflicts and supports the development of this course and its inclusion in your curriculum
Cheers, Graham

Graham A.J. Worthy, Ph.D.

Department Chair, Provost's Distinguished Research Professor of Biology,
Hubbs-Sea World Endowed Professor of Marine Mammalogy, and
Director, Physiological Ecology and Bioenergetics Lab

Department of Biology, University of Central Florida,
4110 Libra Dr., Room BIO302A
Orlando FL 32816-2368

Graham.Worthy@ucf.edu
http://worthy.cos.ucf.edu/PEBL/
https://www.facebook.com/BiologyUCF

407-823-1333 office
407-823-5769 fax
skype: graham.worthy

"Wise men talk because they have something to say; fools, because they have to say something" Plato

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On 10/2/2015 11:04 AM, John Schultz wrote:

> Hi Gram,
>
> Anthropology is proposing another class from our new faculty member that specializes in paleoethnobotany. His proposed course is entitled "Paleoethnobotany" and it will be taught as a combined advanced undergraduate and graduate course (4xxx/5xxx). Is it possible for you to review the syllabi and let me know if Biology has any conflicts? Thanks for your time.

University of Central Florida

Course Action Request Form

☒ Course Addition ☐ Course Revision ☐ Course Deletion

Forward to your college office

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

College: Sciences **Department:** Anthropology

Department Chair: Tosha Dupras **Phone:** 407-823-6725

Approved Graduate Faculty/Scholars: Neil Duncan

	Course Prefix	Number	Title	Credit Hours Ex.: 3(3,0)
Course Prefix	ANG	5xxx	Paleoethnobotany	3(3,0)
New or Proposed Revision				

30 Char. Abbreviation: Paleoethnobotany

Course Description (25 word limit)

~~This course will provide students with~~ knowledge and understanding of paleoethnobotany sufficient to understand, interpret, and evaluate plant data in archaeological, paleoecological, and contemporary research.

Will lab fees be charged? ☐ Yes ☒ No

Repeat for credit? ☐ Yes ☒ No If yes, indicate the total times this course may be used in the degree program. _____

Repeat within same semester? ☐ Yes ☒ No

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.

Prerequisite(s) and/or Corequisite(s): PR: Admission to Anthropology MA program or Consent of Instructor **Graded S/U?** ☐ Yes ☒ No

Split-Level Class: ☒ Yes ☐ No

If offering a split-level class, complete this section even if it had been approved earlier for individual delivery.

List undergraduate split-level course: ANT 4XXX Paleoethnobotany

NOTE: *Both the graduate and the undergraduate split-level syllabi must be approved through the established university process for approving courses so that there are two separate and complete syllabi for each course. The graduate syllabus should clearly demonstrate more advanced subject matter, expectations, and rigor. Attach both undergraduate and graduate syllabi to this form.*

Term of Offering
When will course be offered?

☐ Odd Fall ☒ Odd Spring ☐ Odd Summer ☐ Every Semester

☐ Even Fall ☐ Even Spring ☐ Even Summer ☐ Occasional

Intended Utilization of Course
The course will be used primarily as:

☐ Required Courses ☒ Elective Courses

Justification for Course Addition or Course Revision

What is the rationale for adding/changing this course?

Provides students with the ability to understand and apply anthropological perspectives when studying how people of the past interacted with plants. We may have a few graduate students that enter our Anthropology MA program that need this class for their area of thesis research.

What majors require or recommend this course for graduation? Anthropology MA

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

What is the estimated annual enrollment? 5

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

Please see attached email with approval from Biology.

Justification for Course Deletion

Is this course a required course for graduation in a major or prerequisite? ☐ Yes ☐ No

If yes, have the involved major departments been informed, in writing, of proposed deletion? ☐ Yes ☐ No

If not, explain:Course Description (25 word limit)

Notes:

Approval Signatures

Department Chair _____ **Date** 10-16-15

College Academic Standards _____ **Date** _____

College Dean _____ **Date** _____

Graduate Council _____ **Date** _____

Graduate Dean _____ **Date** _____

Biology

Lisa Haas

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Sent: Monday, October 05, 2015 7:42 AM
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Subject: FW: Proposed Paleoethnobotany Course from Anthropology

Response from Bio

From: Graham Worthy
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Hi John
Biology sees no conflicts and supports the development of this course and its inclusion in your curriculum
Cheers, Graham

Graham A.J. Worthy, Ph.D.

Department Chair, Provost's Distinguished Research Professor of Biology,
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ANG 5xxx Paleoethnobotany

Department of Anthropology
University of Central Florida

Instructor:
Dr. Neil Duncan
Neil.duncan@ucf.edu
Office: 309F Howard Phillips Hall
Office hours: TBA

Course Description:

Paleoethnobotany studies the interrelationships between humans and the plant world through the archaeological record. This course will provide students with knowledge and understanding of paleoethnobotany sufficient to understand, interpret, and evaluate plant data in archaeological, paleoecological, and contemporary research. The course will cover the major approaches paleoethnobotany uses in the study of archaeobotanical remains: charred wood and plant macro-remains, pollen, phytoliths, and starch grains and explore how these data can be integrated with each other and with other dietary and environmental indicators. Laboratory sessions will provide hands-on experience in sampling and identification techniques of plant materials.

Course Objectives:

1) To help students interested in the archaeological use of plants, diet, and past environments gain the knowledge needed to understand and critique archaeobotanical data and paleoethnobotanical interpretations.
2) To provide hands-on experience working with, analyzing and interpreting archaeobotanical remains.
3) To appreciate multidisciplinary and collaborative research in modern archaeology.
4) To obtain first-hand research and/or grant-writing experience in paleoethnobotany.

Class info:

This class will be conducted as informal lecture/discussion with weekly laboratory sessions in which you will experience archaeobotanical techniques including identification procedures and microscopy. You should come to class having read ALL the assigned readings for the day and be prepared to add to the discussions. Your participation is essential.

Grading and Course Requirements

There will be 4 take-home quizzes distributed throughout the semester. These are designed to give you a chance to interpret an archaeobotanical dataset. Your work will be your own. In addition, an abstract and at least one discussion question will be prepared for each of the *Discussion Readings* assigned each week. These will be compiled and turned in at the end of the semester. These will enhance class discussions of the readings and help you have an archive of the material you read. You will also get a chance to present at least one of the articles assigned (or a related topic of your choice approved by me in advance). **As a Graduate student, you will be assigned at least one week for which you will be responsible for leading discussion. Most importantly, you are expected to participate in and contribute to all of the course discussions and lab sessions.**

Graduate students will be assigned as group leaders during lab sessions. You will be responsible for overseeing group work and completion, making sure proper procedures are followed, and qualitatively assessing group participation.

In addition to the above requirements, you will have the option to prepare a project proposal for paleo- or ethnobotanical research in your area of graduate research or to conduct original research with materials from your own research.

***Option 1*: The goal of this 15-20 page research proposal is to assess your understanding of the potential contribution of paleoethnobotany to answering archaeological and anthropological questions including, but not limited to, diet, subsistence, environment and ritual. Guidelines for writing a research proposal will be distributed during the first week of class, but your proposal will generally include an abstract, an introduction that outlines your research questions, background research and theoretical approach that will inform your proposed research, the methods you intend to use to answer your research questions, and, finally, a statement of the significance of your proposed work (or, why this proposed work is important). Finally, you will present your proposal to class in a 15 minute "powerpoint" presentation at the end of the semester. 100 points.**

***Option 2*: This option is available to graduate students who are interested in conducting original research in their own areas of interest with materials that they have obtained (soils, artifacts, etc. or data) as part of their graduate projects. While I encourage graduate students to take this option, you should be aware that it may require a significant amount of personal time to complete. In addition, Laboratory Safety Training through UCF Environmental Health & Safety may also be required. The research will be written up as paper or poster of a quality to be presented at a professional meeting. Lastly, you will present the paper or poster at the end of the semester. 100 points.**

Grading
Quizzes: 4 x 50 = 200
Abstracts and discussion questions: 25
Discussion leadership: 25
Class Participation: 25
Article Presentations: 15
Lab Group Leadership: 35
Project and final presentation: 60
Final Presentation: 15
Graduate Total: 400 points

Text and Readings
The main text is *Paleoethnobotany, Third Edition,* by Deborah M. Pearsall (2015) Left Coast Press. Referred to as "DMP" in the readings below. Additional readings listed in the syllabus will be available on reserve.

Note: for this preliminary syllabus, chapter numbers and pages for *Paleoethnobotany* refer to the 2nd edition. Printing for the third edition is scheduled to be finished by 9/2015 (info from publisher on 8/15/15).

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van der Veen, Marijke (2014)The materiality of plants: plant–people entanglements. *World Archaeology* 46(5):799-812.

Lab: Intro to lab, safety, and caretaking of fragile materials

Week 2
Lecture:
Sampling for Macroremains; Issues and Directions in Recovery of Macroremains. DMP Ch 2, 66-97

Initial Processing of Samples; Building a Comparative Collection. DMP Ch 3, 99-132

Discussion Readings
Chapman, J., & Watson, P. J. (1993). The Archaic Period and the Flotation Revolution. In C. M. Scarry (Ed.), *Foraging and Farming in the Eastern Woodlands* (pp. 27-38). Gainesville: University Press of Florida.

Wagner, G. E. (1988). Comparability among recovery techniques. In C. A. Hastorf & V. S. Popper (Eds.), *Current Paleoethnobotany. Analytical Methods and Cultural Interpretations of Archaeological Plant Remains.* (pp. 17-35). Chicago: University of Chicago Press.

Lab: Macroremains

Week 3
Lecture:
Identifying seeds. DMP Ch 3, 133-140
Wood identification. DMP Ch 3, 144-153

Lab: practicum

Week 4
Lecture:
Presenting and Interpreting Results. DMP Ch 3, 188-227
Discussion Readings
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Beresford-Jones, D. G., Whaley, O., Ledesma, C. A., & Cadwallader, L. (2011). Two millennia of changes in human ecology: archaeobotanical and invertebrate records from the lower Ica valley, south coast Peru. *Vegetation History and Archaeobotany*. doi: 10.1007/s00334-011-0292-4

Lab: Macroremains
Identifying fruits and roots. DMP Ch 3, 140-144, 153-162

Week 5

Lecture

In-text Case Studies; Issues and Directions in Macroremain analysis. DMP Ch 3, 227-247.

Disscussion Readings

Miksicek,C. (1987) Formation Processes of the Archaeological Record. In Advances in Archaeological Method and Theory 10, ed. by M. Schiffer, pp. 211-248.

Minnis, P. (1981)Seeds in Archaeological Sites: Sources and Some Interpretive Problems. *American Antiquity* 46:143-152.

Reddy, Seetha N. and Jon M. Erlandson. 2012. Macrobotanical food remains from a trans-Holocene sequence at Daisy Cave (CA-SMI-261), San Miguel Island, California. *J Arch Sci* 39:33-40

Sheets, P., et al. (2011) Manioc Cultivation at Ceren, El Salvador: Occasional Kitchen Garden Plant or Staple Crop? *Ancient Mesoamerica* **22**(01): 1-11.

Ugent, D., et al. (1982) Archaeological Potato Tuber Remains from the Casma Valley of Peru. *Economic Botany* **36**(2): 182-192.

Lab: Macroremains

II. Pollen in Archaeology

Week 6

Lecture:

Nature and Production of Pollen; History of Pollen Analysis. DMP Ch 4, 249-269

Barton, H. and R. Fullager 2006 Microscopy. In *Ancient Starch Research,* pp47-52. Robin Torrence and Huw Barton, eds. Left Coast Press. (slanted toward starch but useful overview of microscope techniques)

First Take-home Quiz Due (no discussion readings this week)

Lab: Pollen

Week 7

Lecture:
Field Sampling. DMP Ch 4, 270-289

Laboratory Analysis; Presenting and Interpreting Results: Stratigraphic Pollen Diagrams. DMP Ch 4, 289-315

Bryant, V.M. and R G. Holloway (1983). The role of palynology in archaeology. Advances in archaeology Method and Theory. 6: 191-224.

Horrocks, M., et al. (1999). "Forensic palynology: Variation in the pollen content of soil on shoes and in shoeprints in soil." *Journal of Forensic Science* 44: 119-122.

Rhode, David (2003) Coprolites from Hidden Cave, revisited: evidence for site occupation history, diet and sex of occupants. Journal of Archaeological Science 30:909-922

Lab: Pollen

Week 8
Lecture:
Presenting and Interpreting Results, continued. DMP Ch 4, 316-337

Hase, Yoshitaka, Akiko Iwauchi, Utako Uchikoshiyama, Eri Noguchi and Naoko Sasaki (2012) Vegetation changes after the late period of the Last Glacial Age based on pollen analysis of the northern area of Aso Caldera in central Kyushu, Southwest Japan. *Quaternary International* 254:107-117.

Kozáková, Radka, Petr Pokorný, Vladimír Peša, Alžběta Danielisová, Katarína Čuláková and Helena Svitavská Svobodová (2015) Prehistoric human impact in the mountains of Bohemia. Do pollen and archaeological data support the traditional scenario of a prehistoric "wilderness"? *Review of Palaeobotany and Palynology* 220:29-43.

Geib, P. R. and S. J. Smith (2008) Palynology and archaeological inference: bridging the gap between pollen washes and past behavior. *Journal of Archaeological Science* 35(8):2085-2101.

Lab: Presenting and Interpreting Results

Week 9
In-text Case Studies; Issues and Directions in Pollen Analysis. DMP Ch 4, 338-353

Disscussion Readings

Fearn, M. L., & Liu, K.-b. (1995). Maize pollen of 3500 B.P. from southern Alabama. *American Antiquity, 60*(1), 109-117.

Eubanks, M. (1997). Reevaluation of the identification of ancient maize pollen from Alabama. *American Antiquity, 62*(1), 139-145.

Fearn, M. L., & Liu, K.-b. (1997). Identification of Maize pollen: Reply to Eubanks. *American Antiquity, 62*(1), 146-148.

Lab: Pollen

III. Opal Phytoliths in Archaeology

Week 10

Second Take-home Quiz Due

Lecture:
Nature and Occurrence of Phytoliths. DMP Ch 5, 355-374

Identifying Plants using Phytoliths; Phytolith Deposition; History. DMP Ch 5, 375-399

Discussion Reading:
Ball, T., , Karol Chandler-Ezell, Ruth Dickau, Neil Duncan, Thomas C. Hart, Jose Iriarte, Carol Lentfer, Amanda Logan, Houyuan Lu, Marco Madella, Deborah M. Pearsall, Dolores R. Piperno, Arlene M. Rosen, Luc Vrydaghs, Alison Weisskopf and Jianping Zhang (2015) Phytoliths as a tool for investigations of agricultural origins and dispersals around the world. *Journal of Archaeological Science.* (in press as of 8/31/15)

Lab: Phytoliths

Week 11
Lecture
Field Sampling; Laboratory Analysis. DMP Ch 5, 399-443

Scanning and Counting Procedures; Presenting and Interpreting Results. DMP Ch 5, 444-473

Discussion Readings
Harvey, E. L. and D. Q. Fuller (2005). "Investigating crop processing using phytolith analysis: the example of rice and millets." *Journal of Archaeological Science* **32**(5): 739-752.

Iriarte, J. (2003). "Assessing the feasibility of identifying maize through the analysis of cross-shaped size and three-dimensional morphology of phytoliths in the grasslands of southeastern South America." Journal of Archaeological Science **30**(9): 1085-1094.

Piperno, D. R., et al. (2000). "Phytoliths in Cucurbita and other Neotropical Cucurbitaceae and their occurrence in early archaeological sites from the lowland American tropics." *Journal of Archaeological Science* **27**(3): 193-208.

Lab: Phytoliths

Week 12

Lecture:

In-text Case Studies; Issues and Directions in Phytolith Analysis. DMP Ch 5, 473-496.

Discussion Readings

Pearsall, D. M., K. Chandler-Ezell, A. Chandler-Ezell (2003) Identifying maize in neotropical sediments and soils using cob phytoliths. Journal of Archaeological Science 30:611-627.

Rover, Irwin (2004) On transparent blindfolds□: Comments on identifying maize in Neotropical sediments and soils using cob phytoliths JAS 31:815-819

Pearsall, Deborah M., Karol Chandler-Ezell, Alex Chandler-Ezell (2004) Maize can *still* be identified using phytoliths: response to Rovner JAS 31:1029-1038

Lab: Phytoliths

IV. Starch Grains Analysis in Archaeology

Week 13

Third Take-home Quiz Due

Lecture:

Starch grain analysis. DMP 178-182

Gott, B., H. Barton, D. Samuel, and R. Torrence (2006) Biology of Starch. In *Ancient Starch Research,* pp 35-45. Robin Torrence and Huw Barton, eds. Left Coast Press.

Lab: Starch

Week 14

Lecture:

Discussion Readings

Babot, M. Pilar (2003) Starch grain damage as an indicator of food processing. *Phytolith and starch research in the Australian-Pacific-Asian regions: the state of the art*: 69-81.

Lu, H., X. Yang, M. Ye, K. B. Liu, Z. Xia, X. Ren, L. Cai, N. Wu and T. S. Liu (2005) Culinary archaeology: Millet noodles in Late Neolithic China. *Nature* 437(7061):967-968.

Ge, W. E. I., L. I. Liu, Xingcan Chen and Zhengyao Jin (2011) Can Noodles Be Made from Millet? An Experimental Investigation of Noodle Manufacture Together with Starch Grain Analyses. *Archaeometry* 53(1):194-204.

Perry, L. (2004) Starch analyses reveal the relationship between tool type and function: an example from the Orinoco valley of Venezuela. *Journal of Archaeological Science* 31:1069-1081.

Mercader, J., T. Bennett and M. Raja (2008) Middle Stone Age starch acquisition in the Niassa Rift, Mozambique. *Quaternary Research* 70(2):283-300.

Lab: Starch

V. Multiple Indicators in Paleoethnobotany; Integrating Data

Week 15

Lecture:

Integrating Biological Data. Introduction; Indirect Indicators; Direct Indicators: gut contents and coprolites. DMP Ch 6, 497-560.

Predictions from Dietary Indicators; From Model to Reality: Two Case Studies. DMP Ch 6, 560-591.

Discussion Readings

Cadwallader, L., et al. (2012). "The Signs of Maize? A Reconsideration of What δ13C Values Say about Palaeodiet in the Andean Region." *Human Ecology* 40: 487-509.

Holst, I., et al. (2007). "Identification of teosinte, maize, and Tripsacum in Mesoamerica by using pollen, starch grains, and phytoliths." *PNAS* **104**(45): 17608-17613

Kennett, Douglas J., Dolores R. Piperno, John G. Jones, Hector Neff, Barbara Voorhies, Megan K. Walsh and Brendan J. Culleton (2010) Pre-pottery farmers on the Pacific coast of southern Mexico. *Journal of Archaeological Science* 37(12):3401-3411.

Whitney, B. S., R. Dickau, F. E. Mayle, J. H. Walker, J. D. Soto and J. Iriarte (2014) Pre-Columbian raised-field agriculture and land use in the Bolivian Amazon. *The Holocene* 24(2):231-241.

Morehart, Christopher T. and Shanti Morell-Hart (2013) Beyond the Ecofact: Toward a Social Paleoethnobotany in Mesoamerica. *Journal of Archaeological Method and Theory*.

Lab: Student Presentations

Week 16

Final Exam Day TBA: *Fourth Take-home Quiz Due*

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

NEW FORM – BEGINNING FALL 2015

Program Recommendation Form - REVISIONS ONLY

This form is to be used to **REVISE** degree programs, tracks, or certificate programs. If there are changes to a program and the changes will also affect the program tracks, one form may be used for both the program and the track(s).

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

Checklist of items to be attached with completed form:

☑ Complete and current Graduate Catalog copy (www.graduatecatalog.ucf.edu), including description, curriculum, contact information, application requirements, and application deadlines. Use Track Changes in Word to show revisions.

☐ A list of faculty who will participate in the program, track or certificate and their credentials.

☐ All course action requests that will be needed to implement the curriculum changes.

☐ If applicable, a written agreement from all involved units that they are in support of the revisions.

College/Unit(s) Submitting Proposal: College of Sciences

Proposed Effective Term/Year: Fall 2016

Unit(s) Housing Program: Chemistry Department

Name of program, track and/or certificate: Graduate Certificate in Computer Forensics

Please check all that apply: This action affects a: ☐ Program ☐ Track ☑ Certificate

If the revision applies to multiple tracks, please list them here:

Brief description of **program and rationale** of the revision: **Do not add complete catalog copy here.**

The proposed change is to reduce the the certificate's course requirements from 15 hours to 12 hours, which will consist of the 12 hours of required courses as they stand right now, dropping an elective course. The rationale for the proposed change is to streamline the certificate so that students could complete the program in two semesters (if they start in the fall semester), therefore promoting the certificate as an add-on for students in other disciplines to pursue. Also, those students interested in continuing to a master's degree in computer forensics can apply to UCF's MS in Digital Forensics while all 12 hours of course credits will transfer (if they meet the course grades required).

Briefly list curriculum changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**

- Keep all 12 hours of Required Courses, but add a note to allow for possible substitution:
  Note: A graduate-level digital evidence course approved by the graduate faculty may be used to substitute for CGS 5131 or CNT 6418.
- Drop Elective Courses - 3 Credit Hours
- Add resume as part of the application requirements.
- Drop the Out of State Cohort/Track since UCF Continuing Education has suspended the option.

Name Change

Are you changing the name of an existing program, track, or certificate? ☐ Yes ☑ No

If yes, provide the new name of the program, track, or certificate: _____

A proposed name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this new 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:

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?

Existing students will not be impacted by the proposed changes since satisfying the existing certificate requirements will automatically satisfies the new requirements after the changes take effect.

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Department Chair /Director	**(Print)** Cherie Yestrebsky	**(Signature)** Cherie L. Yestrebsky	**Date** 1/22/2016
College Academic Standards	**(Print)** [illegible]	**(Signature)** [signature]	**Date** 1/22/16
College Dean	**(Print)** Michael Johns	**(Signature)** [signature]	**Date** 2016-1-25
Graduate Council	**(Print)**	**(Signature)**	**Date**
Graduate Dean	**(Print)**	**(Signature)**	**Date**

Approval

Provost and Executive Vice President: _____ **Date** _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Knowledge Management; Academic Services; College of Graduate Studies

Computer Forensics Certificate

PROGRAM DESCRIPTION

The Graduate Certificate in Computer Forensics provides a unique graduate training opportunity for those who deal directly or indirectly with digital evidence.

Read More

CURRICULUM

Total Credit Hours Required:

~~15~~ 12 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—12 Credit Hours

- CHS 5504 Topics in Forensic Science (3 credit hours)
- CHS 5518 The Forensic Collection and Examination of Digital Evidence (3 credit hours) or CHS 5596 The Forensic Expert in the Courtroom (3 credit hours)
- CGS 5131 Computer Forensics I: Seizure and Examination of Computer Systems (3 credit hours)
- CNT 6418 Computer Forensics II: Network Security, Intrusion Detection, and Forensic Analysis (3 credit hours)

Note: A graduate-level digital evidence course approved by the graduate faculty may be used to substitute for CGS 5131 or CNT 6418

~~**Elective Courses—3 Credit Hours**~~

~~Choose one course from the following list~~

- ~~CIS 6207 The Practice of Digital Forensics (3 credit hours)~~
- ~~CAP 6133 Advanced Topics in Computer Security and Computer Forensics (3 credit hours)~~
- ~~A digital evidence course approved by the graduate faculty~~

Application Requirements

Admission is open to those with a bachelor's degree from a regionally accredited institution. An application to the graduate certificate program, a resume, and official transcripts must be submitted. Applicants must apply online. All requested materials must be submitted by the established deadline.

Admission to the program is competitive on a space-available basis. Final admission is based on evaluation of the applicant's abilities, past performance and the applicant's potential for completing the certificate. ~~Students interested in the Out-of-State Cohort/Track, must contact the program director, Sheau-Dong Lang, PhD, prior to applying.~~

Application Deadlines

Computer Forensics Certificate	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	-	Jul 15	Dec 1	-
International Applicants	-	-	-	-
International Transfer Applicants	-	-	-	-

*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.

Tonya Walker

From: Teresa Dorman
Sent: Monday, November 02, 2015 3:34 PM
To: Sheau-Dong Lang
Cc: Cherie Yestrebsky; Tonya Walker; Michael Sigman
Subject: Re: changes to graduate certificate in computer forensics

Sheau,

Thank you for this and congrats on your soon-to-be retirement! I've enjoyed working with you these years. I wish you the best.

I've copied Tonya so she can start the curriculum review process with the college.

I've also copied Cherie on this so she can be considering a potential replacement.

We'll be in touch as needed.
Teresa

Teresa Dorman
Associate Dean
College of Sciences
Sent from phone. Please excuse typos.

From: Sheau-Dong Lang <slang@ucf.edu>
Sent: Monday, November 2, 2015 10:20
Subject: changes to graduate certificate in computer forensics
To: Teresa Dorman <teresa.dorman@ucf.edu>
Cc: Michael Sigman <michael.sigman@ucf.edu>

Good Morning, Teresa,

I hope all is well. I am proposing some changes to UCF's graduate certificate in computer forensics and hope the changes will be acceptable to all parties involved and that these changes if approved can go in effect starting the 2016 catalog year.

First, since I am retiring at the end of March 2016 (through the DROP program), a new program coordinator needs to be appointed presumably someone from UCF's Chemistry/Forensic Science program. Additionally, I am proposing to change the certificate's course requirements from 15 hours to 12 hours, which will consist of the 12 hours of required courses as they stand right now (http://graduatecatalog.ucf.edu/programs/program.aspx?id=1266&program=Computer Forensics Certificate):

- CHS 5504 Topics in Forensic Science (3 credit hours)
- CHS 5518 The Forensic Collection and Examination of Digital Evidence (3 credit hours) or CHS 5596 The Forensic Expert in the Courtroom (3 credit hours)
- CGS 5131 Computer Forensics I: Seizure and Examination of Computer Systems (3 credit hours)
- CNT 6418 Computer Forensics II: Network Security, Intrusion Detection, and Forensic Analysis (3 credit hours)

The rationale for the proposed change is to streamline the certificate so that students could complete the program in two semesters (if they start in the fall semester), therefore promoting the certificate as an add-on for students in other disciplines to pursue. Also, those students interested in continuing to a master's degree in computer forensics can apply to UCF's MS in Digital Forensics while all 12 hours of course credits will transfer (if they meet the course grades required). I have discussed the changes with Mike Sigman and he is in agreement with the proposal. Please advise if you see any issues, and, if not, how we should proceed. I will be happy to schedule a meeting with you along with Mike Sigman to discuss.

Thank you. It has been a great pleasure working with you and with the COS personnel over the years regarding this graduate certificate.

Regards,
Sheau

Cc: Dr. Michael Sigman

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

NEW FORM – BEGINNING FALL 2015

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This form is to be used to **REVISE** degree programs, tracks, or certificate programs. If there are changes to a program and the changes will also affect the program tracks, one form may be used for both the program and the track(s).

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

Checklist of items to be attached with completed form:

☑ Complete and current Graduate Catalog copy (www.graduatecatalog.ucf.edu), including description, curriculum, contact information, application requirements, and application deadlines. Use Track Changes in Word to show revisions.

☑ A list of faculty who will participate in the program, track or certificate and their credentials.

☑ All course action requests that will be needed to implement the curriculum changes.

☑ If applicable, a written agreement from all involved units that they are in support of the revisions.

College/Unit(s) Submitting Proposal: Science

Proposed Effective Term/Year: Fall 2016

Unit(s) Housing Program:

Name of program, track and/or certificate: Graduate Certificate in Mathematical Science

Please check all that apply: This action affects a: ☐ Program ☐ Track ☑ Certificate

If the revision applies to multiple tracks, please list them here:

Brief description of **program and rationale** of the revision: **Do not add complete catalog copy here.**

1. We change the name of the graduate program from "Graduate Certificate in Mathematics" to "Graduate Certificate in Mathematical Science". The reason for the change is that most of students in our program teach either in high school or community college, and they need to teach a variety of courses in mathematical science.

2. We change the three electives from taking all courses from the Department of Mathematics to at least one from the Department of Mathematics and at most two courses in the Department of Statistics. The Department Chairs of Mathematics and Statistics have discussed this issue and they are agreed.

Briefly list curriculum changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**

Change name of program from 'Graduate Certificate in Mathematics' to Certificate in Mathematical Science'.
Student can take up to 2 elective courses from the Statistics Department.

Name Change

Are you changing the name of an existing program, track, or certificate? ☑ Yes ☐ No

If yes, provide the new name of the program, track, or certificate: Graduate Certificate in Mathematical Science

A proposed name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this new 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:

Graduate Certificate of Mathematics

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?

We add the option for the elective courses. Existing students can take all elective courses offered by Department of Mathematics.

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Graduate Faculty Program Coordinator	(Print)	Qiyu Sun	(Signature)		Date 12/1/2015
Department Chair /Director	(Print)	Xin Li	(Signature)		Date 12/1/2015
College Academic Standards	(Print)	[illegible]	(Signature)		Date 4/28/16
College Dean	(Print)	Michael Johnson	(Signature)		Date 2016-5-21
Graduate Council	(Print)		(Signature)		Date
Graduate Dean	(Print)		(Signature)		Date

Approval

Provost and Executive Vice President: _____ Date _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s), College; Registrar; Associate Registrar; Institutional Knowledge Management; Academic Services; College of Graduate Studies

From: Shunpu Zhang
Sent: Wednesday, November 25, 2015 9:13 AM
To: Qiyu Sun
Subject: RE: Graduate Certificate in Math., Support letter

Dear Professor Qiu,

Thank you, Xin and Dorman for including our department in the Graduate Certificate program in Mathematical Sciences. We welcome students in this program to take courses in our department. If you need a formal letter of support, I'll be more than happy to provide it.

Best regards,

Shunpu

Shunpu Zhang, Ph.D.

Chair and Professor of Statistics

Department of Statistics

University of Central Florida

4000 Central Florida Blvd

Orlando, FL 32816-2370

Office: 407-823-1566

Fax: 407-823-3930

Mathematics Education Approval

RE: Graduare Certificate in Math. support letter

Janet Andreasen
Sent: Wednesday, November 25, 2015 1:55 PM
To: Qiyu Sun

Hi Dr. Sun,

We are supportive of this change. Please confirm with the statistics department as well.

Janet B. Andreasen, Ph.D.
Associate Lecturer, Mathematics Education
Coordinator of Secondary Education
University of Central Florida
College of Education and Human Performance
School of Teaching, Learning, and Leadership
Janet.Andreasen@ucf.edu

From: Qiyu Sun
Sent: Tuesday, November 24, 2015 11:39 PM
To: Janet Andreasen
Subject: Graduare Certificate in Math. support letter

Dear Janet,

The Math Department will revise the Graduate Certificate in Mathematics.

As discussed in a couple of meeting about Valencia College issue, Math Department plan to revise the current graduate Certificate program in Mathematics.

We are going to change the name from Graduate Certificate in Mathematics to Graduate Certificate in Mathematical Sciences. For the elective courses, we add that students can take at most two courses from your department, instead of all courses from Math. Department. This will help faculty to get the graduate certificate in mathematical science, and for our cooperation on this project.

I am preparing the petition for the revision of the program.
It will be very helpful for the petition to get approved if I can get the support from your college. I may submit the petition next Monday.

best regards

Qiyu Sun

Graduate Coordinator
Department of Mathematics
University of Central Florida
Orlando, FL 32816
Web: http://math.ucf.edu/~qsun
Email: qiyu.sun@ucf.edu

PROGRAM DESCRIPTION

The ~~Graduate Certificate in Mathematics~~ Graduate Certificate in Mathematical Science is designed to prepare students to teach college-level mathematics in high schools or colleges. All required courses will be offered to accommodate distance learning by posting recorded lectures and offering scheduled online problem sessions and office hours.

CURRICULUM

Students must take 9 credit hours of required courses and 9 credit hours of elective courses.

Total Credit Hours Required:

18 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—9 Credit Hours

Students choose three of the following courses.

- MAA 5210 Topics in Advanced Calculus (3 credit hours)
- MAS 5145 Advanced Linear Algebra and Matrix Theory (3 credit hours)
- MTG 5253 Introduction to Differential Geometry (3 credit hours)
- MAA 6405 Complex Variables (3 credit hours)
- MAT 5712 Scientific Computing (3 credit hours)
- MAP 5426 Special Functions (3 credit hours)

Elective Course—9 Credit Hours

Students should take three graduate-level courses offered by ~~the UCF Mathematics Department.~~ The Department of Mathematics and/or the Department of Statistics at UCF, with at most two elective courses from the Department of Statistics.

Application Requirements

Admission is open to those with a bachelor's degree from a regionally accredited institution. An application to the graduate certificate program and official transcripts must be submitted. Applicants must apply online. All requested materials must be submitted by the established deadline.

Please note: Due to restrictive state regulations, UCF is not permitted to provide online courses or instruction to students in the following states. If you reside in one of these states, you may not be permitted to enroll in or be admitted to a UCF online program. Please contact your state's higher education regulation authorities or the UCF Graduate Program (see contact information above) for more details.

- Minnesota
- Oregon

Application Deadlines

Mathematics Certificate	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	-	Jul 15	Dec 1	Apr 15
International Applicants	-	-	-	-
International Transfer Applicants	-	-	-	-

*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.

Contact Info

Request Program Information

Graduate Program

Qiyu Sun

Professor

qiyu.sun@ucf.edu
Telephone: 407-823-4839
PO Box 161364 Map

Graduate Admissions

Admissions Counselor

gradadmissions@ucf.edu
Telephone: 407-823-2766

Millican Hall 230 Map
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

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

NEW FORM – BEGINNING FALL 2015

Program Recommendation Form - REVISIONS ONLY

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☐ A list of faculty who will participate in the program, track or certificate and their credentials.

☑ All course action requests that will be needed to implement the curriculum changes.

☐ If applicable, a written agreement from all involved units that they are in support of the revisions.

College/Unit(s) Submitting Proposal: Chemistry

Proposed Effective Term/Year: Spring 2015

Unit(s) Housing Program: Chemistry/College of Sciences

Name of program, track and/or certificate: Chemistry PhD

Please check all that apply: This action affects a: ☑ Program ☐ Track ☐ Certificate

If the revision applies to multiple tracks, please list them here:

Brief description of **program and rationale** of the revision: **Do not add complete catalog copy here.**

The Chemistry PhD program focuses on Materials Chemistry, Environmental Chemistry, Forensic Science and Biochemistry. The training prepares future scientists and educators for research within contemporary fields to accommodate changing and growing industry demands. The Forensic Science program recently split CHS 6548 Explosives and Accelerants Analysis into 2 courses (CHS 6545 Forensic Analysis of Explosives & CHS 6546 Forensic Analysis of Ignitable Liquids) therefore we would like to remove CHS 6548 from the list of elective courses related to the Forensic Science Concentration, and replace it with CHS 6545 & CHS 6546. Additionally, CHS 6539C Forensic Analysis Laboratory, which has CHS 6548 as a prerequisite, will be deleted because it is no longer taught.

Briefly list curriculum changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**

- Delete CHS 6548 Explosives and Accelerants Analysis (3 credit hours) from the Forensic Science Concentration electives category

- Add CHS 6545 Forensic Analysis of Explosives to the Forensic Science Concentration electives category

-Add CHS 6546 Forensic Analysis of Ignitable Liquids to the Forensic Science Concentration electives category

-Delete CHS 6539C Forensic Analysis Laboratory (3 credit hours) from Chemistry course list

Name Change

Are you changing the name of an existing program, track, or certificate? ☐ Yes ☑ No

If yes, provide the new name of the program, track, or certificate: _____

A proposed name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this new 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:

_____

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?

Students will not be impacted by this change.

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Department Chair /Director (Print) Cherie Yestrebsky (Signature) [signature] Date 10/26/15

College Academic Standards (Print) [illegible] (Signature) [signature] Date 11/20/15

College Dean (Print) Michael Johnson (Signature) [signature] Date 2016-1-21

Graduate Council (Print) _____ (Signature) _____ Date _____

Graduate Dean (Print) _____ (Signature) _____ Date _____

Approval

Provost and Executive Vice President: _____ Date _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Knowledge Management; Academic Services; College of Graduate Studies

Chemistry PhD

PROGRAM DESCRIPTION

The Chemistry PhD program focuses on Materials Chemistry, Environmental Chemistry, Forensic Science and Biochemistry. The training prepares future scientists and educators for research within contemporary fields to accommodate changing and growing industry demands.

Read More ▼▲

CURRICULUM

The Chemistry PhD program requires 72 credit hours beyond the bachelor's degree with a minimum 18 credit hours of electives in the chosen sub-discipline, an original research project and dissertation presentation. A maximum of 24 credit hours may be transferred for students that have completed an approved MS degree program. At least 27 hours of formal course work, exclusive of independent study, are required in order to fulfill degree requirements. This includes four core courses and four electives, three of which must be taken from Chemistry. Six credit hours of directed research are also required; additional courses may be specified by the student's research adviser.

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

One of the primary means of education and training in the PhD program is achieved through successful completion of an original research project, close mentorship by their research adviser and the presentation and defense of the PhD dissertation. This intense research experience provides the education and training necessary for the student to substantiate his/her expertise and develop the skills necessary to become an independent professional.

By the second semester, students will choose a dissertation adviser and establish a program of study. Students will take a two-semester seminar, presenting a seminar to the department during the second semester. A third seminar credit hour will be taken in preparation for the dissertation defense. During this semester, the student will present a seminar to the department on their dissertation research. The research adviser and graduate program director will establish an advisory committee for each student. Students must maintain a 3.0 GPA or higher.

Required Courses—15 Credit Hours

Core—12 Credit Hours

Students must take four of the following courses.

- CHM 6710 Applied Analytical Chemistry (3 credit hours)

- CHM 6440 Kinetics and Catalysis (3 credit hours)
- CHS 6251 Applied Organic Synthesis (3 credit hours)
- CHS 6240 Chemical Thermodynamics (3 credit hours)
- BCH 6740 Applied Biochemistry (3 credit hours)

If a student successfully completes all five core courses, one course will count toward fulfilling the electives requirement.

Seminar—3 Credit Hours

- CHM 6936 Seminar (1 credit hour, to be taken three times)

Elective Courses—18-42 Credit Hours in Chosen Concentration

Students who enter the program with a master's degree need to take four elective courses (12 credit hours) and 6 credit hours of directed research. They may choose four courses from the departmental offerings or three courses from the departmental offerings and one from outside of the department. Directed research will always be within the department. Students who enter the program without a master's degree will be required to take 24 additional hours for a total of 42 credit hours of a combination of elective and research courses.

A program of study requires 27 hours of total formal course work exclusive of independent study. Students and advisers need to be careful about how elective courses are selected so that at least 12 credit hours of electives must be formal course work, exclusive of independent study. Doctoral research, dissertation research, independent study and directed research may also be used to satisfy additional hours in the concentration.

Materials Chemistry Concentration

Choose from the following courses (one may be from outside the department) in addition to 6 hours of directed research.

- CHM 5225 Advanced Organic Chemistry (3 credit hours)
- CHM 5580 Advanced Physical Chemistry (3 credit hours)
- CHS 6260 Chemical Unit Operations and Separations (3 credit hours)
- CHM 6711 Chemistry of Materials (3 credit hours)
- CHM 6620 Solid State Inorganic Chemistry (3 credit hours)
- CHM 5450 Polymer Chemistry (3 credit hours)
- CHM 5451C Techniques in Polymer Science (3 credit hours)
- CHM 5715C Optical Materials Processing and Characterization Techniques (3 credit hours)
- CHM 6449 Photochemistry (3 credit hours)
- CHM 5305 Applied Biological Chemistry (3 credit hours)
- CHM 6938 Special Topics (3 credit hours)

- CHM 5235 Applied Molecular Spectroscopy (3 credit hours)
- CHM 6134 Advanced Instrumental Analysis (3 credit hours)
- CHM 7938 Frontiers in Chemistry (three semesters, 1 credit hour each semester)
- CHM 7919 Directed Research in Materials Chemistry (6 credit hours)

Courses from outside the Chemistry Department.

- OSE 5203 Fundamentals of Applied Optics (3 credit hours)
- OSE 5313 Materials for Optical Systems (3 credit hours)
- OSE 5414 Fundamentals of Optoelectronic Devices (3 credit hours)
- EMA 5504 Modern Characterization of Materials (3 credit hours)
- EMA 6518 Transmission Electron Microscopy (3 credit hours)
- EMA 5108 Surface Science (3 credit hours)
- EMA 6129 Solidification and Microstructure Evolution (3 credit hours)
- EMA 6130 Phase Transformations in Metals and Alloys (3 credit hours)
- EMA 6136 Diffusion in Solids (3 credit hours)
- EMA 6516 X-Ray Diffraction and Crystallography (3 credit hours)
- IDS 7691 Structure-Function-Relationships of Biomolecules I (5 credit hours)
- PHY 5933 Selected Topics in Biophysics of Macromolecules (3 credit hours)
- PCB 5527 Genetic Engineering and Biotechnology (3 credit hours)
- BSC 5408L Advanced Biology Laboratory Techniques (3 credit hours)

Environmental Chemistry Concentration

Choose from the following courses (one may be from outside the department) in addition to 6 hours of directed research.

- CHS 6260 Chemical Unit Operations and Separations (3 credit hours)
- CHS 6613 Current Topics in Environmental Chemistry (3 credit hours)
- CHS 6508 Advanced Mass Spectrometry for Forensic Science (3 credit hours)
- CHM 5235 Applied Molecular Spectroscopy (3 credit hours)
- CHM 5580 Advanced Physical Chemistry (3 credit hours)
- CHM 6134 Advanced Instrumental Analysis (3 credit hours)
- CHM 6449 Photochemistry (3 credit hours)
- CHM 6938 Special Topics (3 credit hours)
- CHM 7938 Frontiers in Chemistry (three semesters, 1 credit hour each semester)
- CHM 7919 Directed Research in Environmental Chemistry (6 credit hours)

Courses from outside the Chemistry Department.

- ENV 5410 Drinking Water Treatment (3 credit hours)
- ENV 6046 Membrane Mass Transfer (3 credit hours)
- ENV 6055 Fate and Transport of Subsurface Contaminants (3 credit hours)

- ENV 6106 Theory and Practice of Atmospheric Dispersion Modeling (3 credit hours)
- ENV 6126 Design of Air Pollution Controls (3 credit hours)
- ENV 6336 Site Remediation and Hazardous Waste Treatment (3 credit hours)
- ENV 6519 Aquatic Chemical Processes (3 credit hours)
- ENV 6558 Industrial Waste Treatment (3 credit hours)

Forensic Science Concentration

Choose from the following courses in addition to 6 hours of directed research.

- ~~CHS 6548 Explosives and Accelerants Analysis (3 credit hours)~~
- CHS 6545 Forensic Analysis of Explosives (3 credit hours)
- CHS 6546 Forensic Analysis of Liquids (3 credit hours)
- CHS 6508 Advanced Mass Spectrometry for Forensic Science (3 credit hours)
- CHM 6134 Advanced Instrumental Analysis (3 credit hours)
- CHM 5451C Techniques in Polymer Science (3 credit hours)
- CHM 6938 Special Topics (3 credit hours)
- CHS 6535 Forensic Molecular Biology (2 credit hours)
- CHS 6535L Forensic Analysis of Biological Materials (3 credit hours)
- CHS 6536 Population Genetics and Genetic Data Analysis (3 credit hours)
- CHM 7938 Frontiers in Chemistry (three semesters, 1 credit hour each semester)
- CHM 7919 Directed Research in Forensic Science (6 credit hours)

Biochemistry Concentration

Choose from the following courses (one may be from outside the department) in addition to 6 hours of directed research.

- CHM 5305 Applied Biological Chemistry (3 credit hours)
- CHM 5235 Applied Molecular Spectroscopy (3 credit hours)
- CHM 5225 Advanced Organic Chemistry (3 credit hours)
- CHM 6278 The Organic Chemistry of Drug Design (3 credit hours)
- CHM 5580 Advanced Physical Chemistry (3 credit hours)
- CHM 6449 Photochemistry (3 credit hours)
- CHS 6535 Forensic Analysis of Biological Materials (3 credit hours)
- CHS 6535L Forensic Analysis of Biological Materials Lab (3 credit hours)
- CHS 6536 Forensic Analysis of DNA Data (3 credit hours)
- CHM 7938 Frontiers in Chemistry (three semesters, 1 credit hour each semester)
- CHM 7919 Directed Research in Biochemistry (3 credit hours)

Courses from outside the Chemistry Department.

- IDS 7691 Structure-Function-Relationships of Biomolecules I (5 credit hours)

- PHY 5933 Selected Topics in Biophysics of Macromolecules (3 credit hours)
- MCB 5654 Applied Microbiology (3 credit hours)
- MCB 6417C Microbial Metabolism (3 credit hours)
- BSC 6407C Laboratory methods in Molecular Biology (3 credit hours)
- IDS 5127 Foundation of Bio-Imaging Science (3 credit hours)
- PCB 5236 Cancer Biology (3 credit hours)
- PCB 5527 Genetic Engineering and Biotechnology (3 credit hours)
- EMA 6516 X-Ray Diffraction and Crystallography (3 credit hours)
- EMA 6518 Transmission Electron Microscopy (3 credit hours)

Dissertation—15 Credit Hours Minimum

- CHM 7980 Doctoral Dissertation (15 credit hours)

Within three months before defending the dissertation, the student will present a dissertation research seminar to the Department of Chemistry, registering for one credit hour of seminar.

Qualifying Examinations

Students will be expected to satisfy qualifying (proficiency) requirements (analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical chemistry) during the first year by taking exams in four of these five areas. Additional course work may be required if one or more of the qualifying exams is not satisfied. These exams may be waived if the entering student possesses an MS degree in the Chemical Sciences. Satisfaction of this requirement will help ensure that all students are adequately prepared for the core courses. If a student does not satisfy the proficiency exam requirements within the first year, the student may be subject to dismissal from the program.

Candidacy Examination

By the end of the fifth semester (excluding summers), students must pass the PhD candidacy oral examination. The candidacy examination consists of writing and orally defending an original research proposal to the student's program faculty advisory committee as well as a presentation of their preliminary dissertation research accomplishments and plans. The research proposal will focus on a topic not directly related to the student's dissertation research and must be approved by the adviser and advisory committee. Failure to pass the PhD candidacy exam will result in dismissal from the program.

Admission to Candidacy

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

- Completion of all required and formal elective course work, except for dissertation hours.
- Successful completion of the candidacy examination.
- Successful defense of the written dissertation proposal.

- The dissertation advisory committee is formed, consisting of approved graduate faculty and graduate faculty scholars.
- Submittal of an approved program of study.

Dissertation Defense

The final requirement for the PhD degree is completion of a satisfactory written dissertation of the student's research, along with successful presentation and defense of the dissertation to the advisory committee, including one doctorate-holding non-program faculty member.

Equipment Fee

Full-time students in the Chemistry PhD program pay a $90 equipment fee each semester that they are enrolled. Part-time students pay $45 per semester.

Independent Learning

The grounding in scientific research methodology provided by the dissertation requirement is a central focus of the proposed program. Students will conduct research either on site or at the professional laboratories where they work. In either case, a member of the UCF Chemistry Department graduate faculty will act as research adviser and approve the research topic. This research culminates in the writing and presentation of the dissertation. The student will present his/her dissertation for examination by a committee consisting of a minimum of five members including the research adviser. One of the committee members will be from outside the Chemistry department. A majority of the program committee members will hold tenure-earning faculty appointments in the Chemistry Department. The committee has to be approved by the Graduate Coordinator of the Chemistry program and the department Chair. The dissertation must be judged worthy of publication by the dissertation committee and may not be submitted for examination until so deemed. For students performing their dissertation research off campus, the dissertation adviser will visit the student's laboratory, where their research is to be performed, before the research begins and on a regular basis until the work is complete.

APPLICATION REQUIREMENTS

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissionssection 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.
- A Bachelor of Science degree in the Chemical Sciences or a closely related field.
- Official, competitive GRE score taken within the last five years.

- Three letters of recommendations.
- A statement of purpose.
- Résumé.

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, and the applicant's potential for completing the degree.

Application Deadlines

Chemistry PhD	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Jul 15	Dec 1	-
International Applicants	Jan 15	Jan 15	Jul 1	-
International Transfer Applicants	Jan 15	Mar 1	Sep 1	-

*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.

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

NEW FORM – BEGINNING FALL 2015

Program Recommendation Form - REVISIONS ONLY

This form is to be used to **REVISE** degree programs, tracks, or certificate programs. If there are changes to a program and the changes will also affect the program tracks, one form may be used for both the program and the track(s).

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

Checklist of items to be attached with completed form:

☑ Complete and current Graduate Catalog copy (www.graduatecatalog.ucf.edu), including description, curriculum, contact information, application requirements, and application deadlines. Use Track Changes in Word to show revisions.

☑ A list of faculty who will participate in the program, track or certificate and their credentials.

☑ All course action requests that will be needed to implement the curriculum changes.

☐ If applicable, a written agreement from all involved units that they are in support of the revisions.

College/Unit(s) Submitting Proposal: Sciences

Proposed Effective Term/Year: Fall 2016

Unit(s) Housing Program: Psychology PhD

Name of program, track and/or certificate: Clinical Psychology PhD

Please check all that apply: This action affects a: ☑ Program ☑ Track ☐ Certificate

If the revision applies to multiple tracks, please list them here:

Brief description of **program and rationale** of the revision: **Do not add complete catalog copy here.**

Through our various program assessments, we have learned that the material covered in the stand alone Cross Cultural course is also covered in various other core classes that make up the doctoral program curriculum. For example, our assessment courses cover how race, ethnicity, culture, gender, and age may affect the reliability or validity of a psychological test. Similarly, feedback from students indicates that the course is redundant with material learned earlier in their doctoral training. In light of that, we would like to remove this course as a requirement and substitute 3 credits of an elective. Currently, we do not have any electives within our program and this would allow our students to take a class directly relevant to their special interests." Specifically as clinical psychology becomes more neuroscience oriented, our students desire (and need) courses in this area.

Briefly list curriculum changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**

- Delete CLP 6191 Cross-Cultural Psychotherapy
- Add - one 3 credit hour elective

Name Change

Are you changing the name of an existing program, track, or certificate? ☐ Yes ☑ No

If yes, provide the new name of the program, track, or certificate: _____

A proposed name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this new 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:

_____

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?

Students will have the option to change their catalog year to follow the current change.

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Department Chair /Director	**(Print)** Jeffrey Cassisi	**(Signature)**		**Date**	11/1/15
College Academic Standards	**(Print)** Teresa Dan	**(Signature)**		**Date**	1/20/16
College Dean	**(Print)** Michael Johnson	**(Signature)**		**Date**	2016-1-20
Graduate Council	**(Print)** _____	**(Signature)**	_____	**Date**	_____
Graduate Dean	**(Print)** _____	**(Signature)**	_____	**Date**	_____

Approval

Provost and Executive Vice President: _____ **Date** _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Knowledge Management; Academic Services; College of Graduate Studies

College : Sciences	**Degree** :PHD
Department : Psychology	**Option** : Dissertation
Program Websites : http://psychology.cos.ucf.edu/graduate/ph-d-clinical/	

PROGRAM DESCRIPTION

The Psychology Department offers a Psychology PhD in Clinical Psychology, educating students in both the science and the practice of clinical psychology.

Read More

CURRICULUM

The Clinical Psychology track in the Psychology PhD Program is designed to be a full-time program, with some summer enrollment expected. There are a total of 84 semester hours of courses, practica, and research requirements. In addition to the 84 semester hours, graduate students engage in a variety of clinical training experiences that occur in health and mental health facilities throughout greater Orlando. Courses are presented in sequential fashion and students entering with a Bachelor's degree must earn a Master's degree in route to the PhD. Students who enter with a Master's degree must complete at least 54 semester hours at UCF. A Dissertation that represents a significant scientific contribution to the discipline is required. Successful completion of the Qualifying and Comprehensive Examination is required to be admitted into candidacy and prior to initiation of Dissertation research.

Total Credit Hours Required:
84 Credit Hours Minimum beyond the Bachelor's Degree
54 Credit Hours Minimum beyond the Master's Degree

Required Courses—69 Credit Hours (Plus 15 Dissertation Credit Hours Listed Below)

Psychology Foundation Courses—12 Credit Hours

- DEP 5057 Developmental Psychology (3 credit hours)
- SOP 5059 Advanced Social Psychology (3 credit hours)
- PSB 5005 Physiological Psychology (3 credit hours)
- EXP 6506 Human Cognition and Learning (3 credit hours)

Research Courses—18 Credit Hours

- PSY 7217C Advanced Research Methodology I (4 credit hours)
- PSY 7218C Advanced Research Methodology II (4 credit hours)

- PSY 7219C Advanced Research Methods III (4 credit hours)
- PSY 6971 Thesis (6 credit hours)

Clinical Courses—36 Credit Hours **(Changes to 33 Credit Hours)**

- ~~CLP 6191 Cross-Cultural Psychotherapy (3 credit hours)~~ – Remove Cross - Cultural
- CLP 7446C Child Psychological Assessment (3 credit hours)
- CLP 7447C Adult Psychological Assessment (3 credit hours)
- CLP 7145C Introduction to Clinical Psychology and Psychotherapy (2 credit hours; taken two times at 1 credit hour each time)
- CLP 7125 Adult Psychopathology (3 credit hours)
- CLP 7136 Child Psychopathology (3 credit hours)
- CLP 7623 Ethical and Professional Issues in Clinical Psychology (3 credit hours)
- CLP 7494 Adult Empirically Supported Treatments (3 credit hours)
- CLP 7474 Child Empirically Supported Treatments (3 credit hours)
- CLP 7943C Clinical Practicum (taken 2 times at 3 hours; 6 credit hours)
- CLP 6949 Pre-doctoral Internship (taken 3 times at 1 credit hours; 3 credit hours)
- CLP 7942L Supervision Practicum (1 credit hour)

Professional Development—3 Credit Hours

- EXP 6939 Teaching Seminar (3 credit hours)

Elective – 3 Credit Hours

- Any graduate-level course as approved by the program director.
-

Dissertation—15 Credit Hours

- PSY 7980 Doctoral Dissertation (15 credit hours)

Quality/Comprehensive Doctoral Examinations

Domain A: Research (required)

- Theoretical or Review Article, or
- Empirical Article

Domain B: Clinical Practice/Consultation

- Comprehensive Case Presentation, or

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- Program Development (Rx/Prevention)

Domain C: Teaching

- Undergraduate Instructor Experience, or
- Professional Presentation Experience

Purpose—The purpose of the Qualifying and Comprehensive Examination is to develop and assess competency of professional behaviors in doctoral-level graduate students in the Clinical Psychology PhD Program that are consistent with the program's professional training goals. These goals include but are not limited to the development and demonstration of skills and abilities that enable graduating students to (a) conduct and publish independent empirical research; (b) be expertly trained, empirically oriented clinicians capable of designing, implementing and assessing programs concerned with health service and mental health delivery broadly defined; and (c) competently serve as innovative teachers/instructors in colleges, universities, and medical schools and as presenters at local, regional, national, and international professional conferences.

Requirements, Rationale, and Objectives—Successful completion of Qualifying and Comprehensive Examination requirements reflects the program's desire to ensure overall breadth of training in the field of Clinical Psychology that is complemented by individually tailored professional training experiences and competencies consistent with a student's professional career goals. The three professional domains outlined above are consistent with this intent. All graduate students are expected to discuss possible selections with their major professor/faculty adviser prior to formalizing their choices. Choices made are expected to reflect individual professional training goals and the desire for additional knowledge and expertise in a selected area. All competency domains contain two options, and graduate students are free to select either option (see options "a" and "b" under each domain in above matrix) in consultation with their faculty adviser.

Admission to Candidacy

The following are required to be admitted to Candidacy and enroll in Dissertation hours:

- Completion of most course work, except for Dissertation hours.
- Successful completion of the Candidacy Examination.
- The Dissertation advisory committee is formed, consisting of approved graduate faculty and graduate faculty scholars.
- Submittal of an approved program of study.

The American Psychological Association requires that graduate students be evaluated at least annually and provide written feedback to graduate students. Because Clinical Psychology involves the provision of mental health services to the public, special care must be taken to ensure that graduate students possess the requisite interpersonal sensitivity and skill. As a result, evaluation procedures within this track will focus not only on academic performance but also on: clinical proficiency; ethical and professional conduct; response to supervision; interpersonal behavior; and interpersonal functioning. The Clinical Psychology committee reserves the right to drop from the program graduate students who

continue to exhibit serious difficulties in these behavioral domains and do not respond to feedback and efforts at remediation.

MASTER OF SCIENCE IN CLINICAL PSYCHOLOGY

Graduate students enrolled in the Clinical Psychology PhD Program earn a Master of Science in Clinical Psychology in route to their doctorate unless they are admitted with an acceptable Master's degree. This is a nonterminal Master's degree available only to students in the Clinical Psychology PhD program.

Independent Learning

As befits the nature of graduate training and the pursuit of a doctoral degree, graduate students in Clinical Psychology are expected to engage in independent learning throughout their graduate career. The completion of the Master's Thesis and the doctoral Dissertation are two examples of independent learning in which all graduate students participate. In addition, depending upon their career goals, other experiences, such as directed readings or additional research projects, may be undertaken by graduate students.

APPLICATION REQUIREMENTS

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

Applicants must have at least a Bachelor's degree with a major in Psychology or a Bachelor's degree and completion of undergraduate or graduate courses in statistics/research methods and six additional upper division courses in core content areas of Psychology (i.e., personality theory, abnormal psychology, learning, physiological psychology, clinical psychology, developmental psychology, social psychology). Applicants who enter with a Master's degree may be eligible to waive or transfer up to 30 credit hours for credits earned from a completed Master's degree from an accredited institution (as long as this number does not exceed 50% of the program's requirements). In these cases, each applicant's situation will be reviewed individually based on program standards and requirements.

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 scores taken within the last five years (use UCF Institution Code: 5233).
- The Psychology Subject Test of the GRE.
- Evidence of successful completion of undergraduate course work in statistics and general areas of Psychology.
- Curriculum Vitae.
- Three letters of recommendation, with at least two furnished by college or university professors who are acquainted with the applicant.

- A clear statement concerning the type of research you wish to pursue as a graduate student, and the Clinical Faculty member you believe would be best suited to serve as your major professor and mentor.

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, and the applicant's potential for completing the degree.

Due to the competitive nature of the application process, strong candidates are likely to meet criteria that are more stringent than those listed here. Strong candidates are also likely to have both research and clinical experience. A department admissions committee reviews the applicants' credentials and may invite a group of candidates for an interview. Final selection is based on both submitted credentials and the interview.

In 2013, the Doctoral Program in Clinical Psychology received 173 applications for admission, but only seven students entered the Ph.D. program. Accepted students had, on average, between 1.5 and 2 years prior research experience and were well matched with the Clinical Faculty's research and training interests.

Previous graduate work will be considered on a case-by-case basis (including acceptance of a previously completed Master's Thesis).Graduate students may be eligible to waive up to 30 credits earned from a completed Master's degree from an accredited institution. Each graduate student's situation is considered individually by the Clinical Faculty. Graduate students should submit a request to the Director of Clinical Training and provide a course catalog description, course syllabus, and other relevant information to enable the Clinical Faculty to make a determination of equivalence with a course in the PhD curriculum. The waived hours must come from graduate-level course work (e.g., numbered 5000 and above in the Florida SUS approach). No courses with grades less than "B" will be considered for waiver. Graduate students who did not complete an empirical Master's Thesis as part of their required training at another accredited institution must complete an empirical Master's Thesis prior to forming a Dissertation committee. Graduate students who completed an empirical Master's Thesis at their former accredited institution may submit the Master's Thesis to the Director of Clinical Training, who will assign a Clinical Faculty committee to review the Master's Thesis and determine whether it meets the PhD program's standards for excellence. Graduate students must propose and successfully defend an approved Master's Thesis under the direction of Clinical Faculty if the Master's Thesis that they completed at a previous institution fails to meet the PhD program's standards.

Application Deadlines

Clinical Psychology PhD	***Fall Priority**	**Fall**	**Spring**	**Summer**
Domestic Applicants	Dec 1	Dec 1	-	-

International Applicants	Dec 1	Dec 1	-	-
International Transfer Applicants	Dec 1	Dec 1	-	-
*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.

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UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

NEW FORM – BEGINNING FALL 2015

Program Recommendation Form - REVISIONS ONLY

This form is to be used to **REVISE** degree programs, tracks, or certificate programs. If there are changes to a program and the changes will also affect the program tracks, one form may be used for both the program and the track(s).

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

Checklist of items to be attached with completed form:

☐ Complete and current Graduate Catalog copy (www.graduatecatalog.ucf.edu), including description, curriculum, contact information, application requirements, and application deadlines. Use Track Changes in Word to show revisions.

☑ A list of faculty who will participate in the program, track or certificate and their credentials.

☐ All course action requests that will be needed to implement the curriculum changes.

☐ If applicable, a written agreement from all involved units that they are in support of the revisions.

College/Unit(s) Submitting Proposal: College of Science / Biology

Proposed Effective Term/Year: Fall 2016

Unit(s) Housing Program: Biology

Name of program, track and/or certificate: Conservation Biology PhD (Applied Conservation and Ecology & Organismal Biology Tracks)

Please check all that apply: This action affects a: ☐ Program ☑ Track ☐ Certificate

If the revision applies to multiple tracks, please list them here:

Applied Conservation Track and Ecology & Organismal Biology Track

Brief description of **program and rationale** of the revision: **Do not add complete catalog copy here.**

The track name change from Ecology & Organismal Biology to Integrative Biology (1) better reflects the curriculum changes that were enacted in the previous year, (2) captures the current renaissance within the field of ecology, which is highlighted by the merging of ecology with molecular biology, bioinformatics and several other disciplines, and (3) is consistent with other PhD programs focusing on similar topics at other research universities .

The track name change from Applied Conservation Biology to simply Conservation Biology also better reflects the curriculum changes enacted last year. It is also motivated by the need to better prepare students who can engage successfully at both the applied and basic research levels.

Briefly list curriculum changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**

No curriculum changes are recommended.

Name Change

Are you changing the name of an existing program, track, or certificate? ☑ Yes ☐ No

If yes, provide the new name of the program, track, or certificate: Conservation Biology Track and Integrative Biology Track

A proposed name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this new 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:

Applied Conservation Biology Track and Ecology & Organismal Biology 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?

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Department Chair /Director	**(Print)** GRAHAM WORTHY	**(Signature)**		**Date**	11-2-15
College Academic Standards	**(Print)** Teresa Dan	**(Signature)**		**Date**	1/22/16
College Dean	**(Print)** Michael Johnson	**(Signature)**		**Date**	2016-1-28
Graduate Council	**(Print)** _____	**(Signature)**	_____	**Date**	_____
Graduate Dean	**(Print)** _____	**(Signature)**	_____	**Date**	_____

Approval

Provost and Executive Vice President: _____ **Date** _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Knowledge Management; Academic Services; College of Graduate Studies

Conservation Biology PhD

- ~~Applied~~ Conservation Biology Track
- Integrative Biology Track

TRACK DESCRIPTION

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: ~~Applied~~ Conservation Biology or Integrative Biology. The ~~Applied~~ 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.

CURRICULUM

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

The ~~Applied~~ Conservation Biology Track requires 75 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, 20 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee, and 15 hours of dissertation research. The remaining credit hours may consist of additional electives, doctoral research, and a maximum of 12 credit hours of combined directed research and independent study. All students will take core courses that provide an introduction to the science of conservation biology.

The Integrative Biology Track requires 73-74 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 13-14 credit hours of required core courses, 20 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee, and 15 hours of dissertation research. The remaining credit hours may consist of additional electives, doctoral research, and a maximum of 12 credit hours of combined directed research and independent study. All students will take core courses that provide an introduction to the science of conservation biology.

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 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 may register for dissertation research only after passing the candidacy exam.

Total Credit Hours Required:

73-75 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 towards, 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 upon their career goals, other experiences such as directed readings, additional research projects, or internships may be undertaken by the students.

APPLICATION REQUIREMENTS

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

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

Conservation Biology PhD	Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Jan 15		
International Applicants	Jan 15	Jan 15		
International Transfer Applicants	Jan 15	Jan 15		

CONTACT INFO

Kenneth Fedorka PhD
Assistant Professor
Program Director
kenneth.fedorka@ucf.edu
407-823-6685
BL 401B

Conservation Biology PhD

~~Applied~~ Conservation Biology Track

TRACK DESCRIPTION

The ~~Applied~~ 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.

APPLICATION REQUIREMENTS

In addition to general application requirements, applicants must provide an official, competitive GRE score taken within the last five years, three letters of recommendation, a résumé, and a statement of research interest and purpose, including a summary of relevant work or research experience.

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

Conservation Biology PhD	Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Jan 15		
International Applicants	Jan 15	Jan 15		
International Transfer Applicants	Jan 15	Jan 15		

CONTACT INFO

Kenneth Fedorka PhD
Assistant Professor
Program Director
kenneth.fedorka@ucf.edu
407-823-6685
BL 401B

CURRICULUM

The ~~Applied~~ Conservation Biology Track in the Conservation Biology PhD program requires 75 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, 20 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee, and 15 hours of dissertation research. The remaining credit hours may consist of additional electives,

doctoral research, and a maximum of 12 credit hours of combined directed research and independent study. All students will take core courses that provide an introduction to the science of conservation biology.

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 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 may register for dissertation research only after passing the candidacy exam.

Total Credit Hours Required:

75 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—15 Credit Hours Minimum

- PCB 6042 Conservation Biology Theory (4 credit hours)
- PCB 6053C Restoration Ecology (4 credit hours)
- PCB 6466 Methods in Experimental Ecology (3 credit hours)
- BSC 6935 Seminar in Biology (2 credit hours, take twice at 1 credit hour each)
- PCB 6095 Professional Development in Biology I (1 credit hour)
- PCB 6096 Professional Development in Biology II (1 credit hour)

Elective Courses—45 Credit Hours Minimum

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 25 credit hours may include additional electives, dissertation research, internship, and a maximum of 12 credit hours of combined independent study and 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.

1. 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.
2. 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.

3. 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.
4. 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.
- 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.

Conservation Biology PhD

Integrative Biology Track

TRACK DESCRIPTION

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.

APPLICATION REQUIREMENTS

In addition to general application requirements, applicants must provide transcripts, an official, competitive GRE score taken within the last five years, three letters of recommendation, a résumé, and a statement of research interest and purpose, including a summary of relevant work or research experience.

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 PhD 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

Conservation Biology PhD	Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Jan 15		
International Applicants	Jan 15	Jan 15		
International Transfer Applicants	Jan 15	Jan 15		

CONTACT INFO

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BL 401B

CURRICULUM

The Integrative Biology Track requires 73-74 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 13-14 credit hours of required core courses, 20 credit hours of graduate-level courses from Biology (or other departments) selected in consultation with the adviser and the dissertation committee, and 15 hours of dissertation research. The remaining credit hours may consist of additional electives, doctoral research, and a maximum of 12 credit hours of combined directed research and independent study. All students will take core courses that provide an introduction to the science of conservation biology.

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 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 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—13-14 Credit Hours Minimum

- PCB 6466 Methods in Experimental Ecology (3 credit hours)
- BSC 6935 Seminar in Biology (2 credit hours, take twice at 1 credit hour each)
- PCB 6095 Professional Development in Biology I (1 credit hour)
- PCB 6096 Professional Development in Biology II (1 credit hour)

Students also take two of the following courses:

- PCB 6675C Evolutionary Biology (4 credit hours)
- PCB 6046 Advanced Ecology (3 credit hours)
- PCB 6677 Molecular Evolution (3 credit hours)

Elective Courses—45 Credit Hours Minimum

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 25 credit hours may include additional electives, dissertation research, and a maximum of 12 hours of combined independent study and directed research. 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.

1. 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.
2. 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.
3. 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.
4. 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.
- 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

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

NEW FORM – BEGINNING FALL 2015

Program Recommendation Form - REVISIONS ONLY

This form is to be used to **REVISE** degree programs, tracks, or certificate programs. If there are changes to a program and the changes will also affect the program tracks, one form may be used for both the program and the track(s).

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

Checklist of items to be attached with completed form:

☐ Complete and current Graduate Catalog copy (www.graduatecatalog.ucf.edu), including description, curriculum, contact information, application requirements, and application deadlines. Use Track Changes in Word to show revisions.

☐ A list of faculty who will participate in the program, track or certificate and their credentials.

☐ All course action requests that will be needed to implement the curriculum changes.

☐ If applicable, a written agreement from all involved units that they are in support of the revisions.

College/Unit(s) Submitting Proposal: College of Sciences/Department of Sociology

Proposed Effective Term/Year: Fall 2016

Unit(s) Housing Program: Department of Sociology

Name of program, track and/or certificate: Ph.D. in Sociology

Please check all that apply: This action affects a: ☑ Program ☐ Track ☐ Certificate

If the revision applies to multiple tracks, please list them here:

na

Brief description of **program and rationale** of the revision: **Do not add complete catalog copy here.**

The Sociology PhD program provides training in the skills necessary to secure research careers in academic and nonacademic professions and emphasizes applied research in community-based settings.

The changes revise the current system of qualifying exams and the lists of required courses in theory and methods/statistics. The changes update the requirements and make them more consistent with those in other doctoral programs in sociology (see attachment).

Briefly list curriculum changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**

The current three exams are merged into one exam that is more comprehensive and more structured.
Two additional courses are added to the list of research methods courses that are elective.
An additional theory course is added as a requirement that may be satisfied by taking one of two courses.

Name Change

Are you changing the name of an existing program, track, or certificate? ☐ Yes ☑ No

If yes, provide the new name of the program, track, or certificate: _____

A proposed name change will apply to the record of all students who are currently enrolled, readmitted or newly admitted into this program as of the effective date of this change.

Impact on Current Students

Will students be moved from an existing program, track, or certificate into this new 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:

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?

Students currently in their first year in the Ph.D. program will have the option of moving to the Fall 2016 catalog. Students currently in their second year will be writing their dissertations when the changes go into effect, and they will not impact them.

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Department Chair /Director (Print) Elizabeth Mustaine (Signature) _____ Date 12/1/15

College Academic Standards (Print) _____ (Signature) _____ Date 12/20/16

College Dean (Print) _____ (Signature) _____ Date 2016-1-21

Graduate Council (Print) _____ (Signature) _____ Date _____

Graduate Dean (Print) _____ (Signature) _____ Date _____

Approval

Provost and Executive Vice President: _____ Date _____

Distribution: After approval is received from the Provost, distribution will be to:

Department(s); College; Registrar; Associate Registrar; Institutional Knowledge Management; Academic Services; College of Graduate Studies

Departments of Sociology Doctoral Requirements Comparison

	Number of hours	Required Methods	Required Theory	Theory Exam	Type	Methods/ Stats Exam	Type	Area Exam	Type	Years BA-PhD
UCF	90	15 hrs	3 hrs	Y	In house	Y	In house	Y	TBD	4
USF	90	6 hrs	3 hrs	N		N		Y	Portfolio	4
UF Soc	90	15 hrs	6 hrs	Y	Take home	Y	Take home	Y	Take home	5
UF Crim/Law	90	0 hrs	6 hrs	N		N		Y	Take home	5
FSU	90	15 hrs	3 hrs	N		N		Y	Take home	4
GSU	93	10 hrs	3 hrs	N		N		Y	Take home	5
UGA	90	15 hrs	0 hrs	N		N		Y	In house	*
UAB	93	15 hrs	6 hrs	N		N		Y	Take home	5

'GA has no set limit.

PROGRAM DESCRIPTION

The Sociology PhD program provides training in the skills necessary to secure research careers in academic and nonacademic professions and emphasizes applied research in community-based settings.

CURRICULUM

The Sociology PhD requires a minimum of 60 credit hours beyond the master's degree, with 15 credit hours coming from required core courses and three credit hours from a restricted elective in research methods and data analysis. Students select a minimum of 12 elective credit hours in one of the department's four areas of concentration, Sociology of Crime/Deviant Behavior; Domestic Violence; Social Inequalities; or Health, Families and Communities.

Total Credit Hours Required:

60 Credit Hours Minimum beyond the Master's Degree

Students must earn a grade of "B" (3.0) or better in the program's required courses. Courses may be retaken to achieve a better grade; however, students must maintain a minimum GPA of 3.0 in their program of study.

Required Courses—~~18~~21 Credit Hours

Core—15 Credit Hours

•SYA 7019 Advanced Sociological Theory (3 credit hours)

•SYA 7309 Advanced Sociological Research Methods (3 credit hours)

•SYA 7407 Advanced Data Analysis (3 credit hours)

•SYA 6657 Program Design and Evaluation (3 credit hours)

•SYA 7658 Social Policy and Research Analysis (3 credit hours)

Theory—3 Credit Hours

Select one course from the list below

SYA 6933 Topics in Sociological Theory (3 credit hours)

SYA 6XXX Theoretical Criminology (3 credit hours)

~~SYP 5525 Sociological Criminology (3 credit hours)~~

Research Methods—3 Credit Hours

Select one course from the list below.

•SYA 6315 Qualitative Research Methods (3 credit hours)

•SYA 6425 Design and Conduct of Social Surveys (3 credit hours)

•SYA 7457 Topics in Data Analysis (3 credit hours)

SYA 6XXX ~~Introductory Geographic Information Systems~~ (3 credit hours) Geographic Information Systems in Society

SYA 6XXX Geographic Information Systems Applications (3 credit hours)

Elective Courses—2~~4~~7 Credit Hours

Major Area of Concentration Electives—12 Credit Hours Minimum

Students will select a minimum of 12 credit hours of unrestricted electives in one of the department's four areas of concentration.

•Sociology of Crime/Deviant Behavior

•Domestic Violence

•Social Inequalities

•Health, Families and Communities

Unrestricted Electives—1~~2~~5 Credit Hours Minimum

The unrestricted electives provide students with an opportunity to expand their doctoral training beyond the program's core courses and the electives in the student's major area of concentration. Unrestricted electives may include formal course work, graduate-level courses in programs outside the Sociology Department, independent study courses with a highly focused student/faculty research component, directed research, doctoral research and a research practicum, which enable students to gain valuable research experience in a nonacademic setting. At least 9 hours from concentration electives and unrestricted electives must consist of formal course work, exclusive of independent study. Unrestricted electives may be taken at any point in the student's program of study. The research practicum and courses from other departments must be approved by the student's adviser and the Graduate Director.

Dissertation—15 Credit Hours Minimum

•SYA 7980 Dissertation Research (15 credit hours)

Examinations

~~Qualifying Examinations~~

~~After completing the program's required courses, a student will take two qualifying examinations. The qualifying examinations will be designed by a faculty grading committee and reflect the course work in the areas of Theory and Methods/Statistics. The qualifying examinations will be used to determine the student's eligibility to complete the doctoral degree. The exams will screen for research ability, technical skills, and mastery of the discipline's core content. Each examination will be a five hour examination that will be used to determine the student's eligibility to complete the doctoral degree. Qualifying examinations will be administered in December and August, at a date arranged by the graduate committee and a student must notify the Graduate Director in writing of their intent to take the qualifying examinations at least one month before the date fixed for the examination. Students passing the qualifying exams will continue with their program. If an exam is failed a second time, the student will be dismissed from the Sociology doctoral program.~~

~~Major Area Examination~~

~~After completing the program's two qualifying examinations and 12 credit hours in their major area of concentration, a student will take a major area examination. The student's adviser and faculty who teach in the selected area will design and administer the examination, which will be based on course work completed in the student's major area of concentration.~~

Examinations

Qualifying Exam

Full-time students would typically be expected to take the Qualifying Exam during their 2nd or 3rd year in the program (after having completed all required courses in theory, methods/statistics, and one of the four areas of concentration: Crime and Deviance; Domestic Violence; Social Inequalities; and Health, Families and Communities).

1. Content

Section 1: Theoretical Foundations of Sociology

All students will answer two of three questions. All students who take the exam in the same area of concentration in a given semester will receive the same three questions. One of the questions will

require students to trace the connections between classical and contemporary sociological theories and a second question will require students to discuss the three central theoretical paradigms in sociology.

Section 2: Methods and Statistics

All students will answer two of three questions. All students who take the exam in the same area of concentration in a given semester will receive the same three questions. One of the questions will require students to interpret statistical results in tabular form.

Section 3: Major Area of Concentration

All students will answer three of four questions covering general information within the area of concentration. All students who take the exam in the same area of concentration in a given semester will receive the same four questions.

Committee

The Qualifying Exams will be graded by a committee of three faculty members who teach or do research in the area of concentration. Prior to the final faculty meeting of each spring semester, four separate qualifying exam committees will be formed by faculty choosing to become a member of one or more areas of concentration. Each qualifying exam committee will create the exam to be used for the next academic year and select the three members who will be the Grading Committee.

Administration

The Qualifying Exam will be offered to students twice during the academic year (once during the fall semester and once during the spring semester). Students must notify the Graduate Director by June 1 to take the exam in the fall semester or by October 1 to take the exam in the spring semester. They will select a major area of concentration. The exam will be distributed by the Graduate Director via email on the Monday of the week prior to the beginning of the fall semester and the Monday prior to the start of the spring semester. Students will have four days (96 hours) to complete all sections of the exam and return the exam to the Graduate Director via email. The Graduate Director will then distribute the exam to the appropriate grading committee.

Students are expected to work on the Qualifying Exam alone, and all exams will be submitted to turnitin.com.

Each grading committee will have three weeks to notify the Graduate Director of the student's grade on the exam (High Pass, Pass, Conditional Pass, or Fail). A grade of conditional pass on an exam will require the student to revise and resubmit one or more questions identified as insufficient by the Grading Committee. The student will have one week to complete each question that must be rewritten.

If a student fails the exam, he/she must retake the exam the next semester it is offered. If the exam is failed a second time, the student will be dismissed from the Ph.D. Program in Sociology.

Candidacy Examination

The dissertation proposal hearing constitutes the program's candidacy examination, and students who successfully pass their proposal hearing along with other requirements shall be admitted to candidacy. The proposal will encompass an overview of the dissertation topic that includes an in-depth review of relevant literature, a precise statement of the research question, and specific research design (planned methodology and analysis). The student's Dissertation Advisory Committee will supervise the preparation of the dissertation proposal and the proposal hearing.

Admission to Candidacy

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

- Completion of all course work, except for dissertation hours.
- Successful completion of the candidacy examination.
- Successful defense of the dissertation proposal.
- The dissertation advisory committee is formed, consisting of approved graduate faculty and graduate faculty scholars.
- Submittal of an approved program of study.

Dissertation

A dissertation is required for completion of the PhD, along with an oral defense of the dissertation proposal and completed dissertation through a minimum of 15 credit hours, which students use to accomplish original research on a topic approved by their adviser and three committee members. One committee member must be from a relevant field outside the Department of Sociology. The dissertation must conform to standard disciplinary, institutional, and departmental practices. Students may not enroll for dissertation credit until they have completed all examinations in their program of study.

Applied Research Practicum (Optional)

An important component of the Sociology PhD program is the research practicum. The practicum is three to six credit hours of directed research experience in a nonacademic setting, which will provide a "hands-on" approach for advanced doctoral students. Although completion of a research practicum will not be required for all doctoral students, it is expected that some students, including most of those seeking employment in research positions in public and private agencies, will take advantage of this opportunity. Doctoral students must pass their qualifying examinations before being eligible for a research practicum. The student's graduate adviser and the department's Graduate Director must

approve the research practicum. Hours completed in a research practicum will count as unrestricted electives in the student's program of study.

Equipment Fee

Full-time students in the Sociology PhD program pay a $39 equipment fee each semester that they are enrolled. Part-time students pay $19.50 per semester.

Independent Learning

As with all graduate programs, independent learning is an important component in the Sociology doctoral program. Students will demonstrate independent learning through research seminars, directed research and the dissertation.

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.
- Master's degree in a related field from an accredited institution (Note: Official, preliminary transcript reflecting Master's degree in-progress may be submitted prior to first semester of enrollment. Final, official transcripts are required post admission to document completion of master's degree.).
- Official, competitive GRE scores taken within the last five years.
- Three letters of recommendation, at least two from academic sources regarding the applicant's potential for success in the program.
- A 250-500 word personal statement identifying the area of research interest, faculty with whom they would like to work with and a description of the applicant's academic and professional experiences and goals.
- Résumé.

•A writing sample, at least 2,500 words and demonstrating the ability to complete advanced graduate work.

Applicants' records will be reviewed on an individual basis for academic deficiencies and evaluated to assess their potential for success in the program. Supplemental course work may be recommended. Consult the graduate program director whenever questions arise.

Meeting minimum UCF admissions criteria does not guarantee program admission. Final admission is also based on evaluation of the applicant’s abilities, past performance, recommendations, match of this program to the applicant’s career/academic goals, and applicant’s potential for completing the degree.

Application Deadlines

Sociology PhD

*Fall Priority

Fall

Spring

Summer

Domestic Applicants

Jan 1 Jan 1

-

-

International Applicants

Jan 1 Jan 1

-

-

International Transfer Applicants

Jan 1 Jan 1

-

-

*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.

Program Profile

Student Profile

Lauren Norman

Student Image

Read Profile +

Jenny Nguyen

Student Image

Boniface Noyongoyo

Student Image

Faculty Profile

Faculty Image

Faculty Image

Faculty Profile Image

Program Stats

Contact Info

Request Program Information

Graduate Program

Jay Corzine PhD

harold.corzine@ucf.edu

Telephone: 407-823-3744

PH 403B Campus Map

Traci Milbuta

traci.milbuta@ucf.edu

Telephone: 407-823-1198

PH 403J Campus Map

Graduate Admissions

Admissions Counselor

gradadmissions@ucf.edu

Telephone: 407-823-2766

Millican Hall 230 Campus Map

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

Footer

Course Agenda
February 3, 2016

1. Course Additions

College of Engineering and Computer Science Course Additions

Course approved pending approval of the lab fee. A list of the miscellaneous supplies should be provided.

BME 6XXXC **ECS-MECH/AERO** **3(2,2)**

Bioinstrumentation: PR: BME 5587C or C.I. An introduction to the fundamental theory and experimental techniques needed for performing bioengineering measurements, designing related experiments, aad analyzing experimental results. *Fall.*

Abbrev: (18 of 30 chars) Bioinstrumentation

Majors taking course: Bioengineering MS

College of Sciences Course Additions

This is a SPLIT CLASS.

ANG 5XXX **COS-ANTHRO** **3(3,0)**

Advanced GIS Methods in Anthropolgy: PR: ANG 5XXX GIS Methods in Anthropology and admission to Anthropology MA program or future GIS certificate, or CI. Advanced methods to Geographic Information Systems (GIS) from an anthropological perspective. *Odd Spring.*

Abbrev: (28 of 30 chars) Adv GIS Methods Anthropology

Discussion with others: Approvals received from Biology, Sociology, COHPA, and Political Science are attached.

Rationale: Provides students w/ advanced methods from an anthropological perspective using geographic information systems. The GIS cluster certificate will require 2 courses that will both be at the 4000/5000 level for each department.

This is a SPLIT CLASS.

ANG 5XXX **COS-ANTHRO** **3(3,0)**

GIS Methods in Anthropology: PR: Admission to Anthropology MA and future GIS certificate. Overview to Geographic Information Systems (GIS) methods from an anthropological perspective. *Even Fall.*

Abbrev: (24 of 30 chars) GIS Methods Anthropology

Discussion with others: Approvals received from Biology, Sociology, COHPA, and Political Science are attached.

Rationale: Provides students with the ability to understand and apply anthropological perspectives using geographic information systems. The GIS cluster certificate will require 2 courses that will both be at the 4000/5000 level for each department.

This is a SPLIT CLASS.

ANG 5XXX **COS-ANTHRO** **3(3,0)**

Paleoethnobotany: PR: Admission to Anthropology MA program or Consent of Instructor. Knowledge and understanding of paleoethnobotany sufficient to understand, interpret, and evaluate plant data in archaeological, paleoecological, and contemporary research. *Odd Spring.*

Abbrev: (16 of 30 chars) Paleoethnobotany

Discussion with others: Please see attached email with approval from Biology. Rationale: Provides students with the ability to understand and apply anthropological perspectives when studying how people of the past interacted with plants. We may have a few graduate students that enter our Anthropology MA program that need this class for their area of thesis research.

CPO 6XXX **COS-POLS** **3(3,0)**

Issues in Latin American Politics: PR: Graduate standing or C.I. Examines and evaluates major issues in Latin American politics employing political science theories and methodologies. *Occasional.*

Abbrev: (30 of 30 chars) Issues Latin American Politics

Discussion with others: We contacted the History department, which approved the course (see attached email).

Rationale: To add an elective in an area of core interest to the PhD in Security Studies, MA in Political Science, and Certificate in Intelligence and National Security.

INR 6XXX **COS-POLS** **3(3,0)**

Strategic Warning Analysis: PR: Graduate standing or C.I. Explores the question of strategic warning within the context of national security with focus upon principles of analysis using examples. *Occasional.*

Abbrev: (26 of 30 chars) Strategic Warning Analysis

Discussion with others: We contacted Legal Studies; they support the course (see attached email communication).

Rationale: To add an elective in an area of core interest to the PhD in Security Studies, MA in Political Science, and Certificate in Intelligence and National Security.

SYP 6XXX **COS-SOC** **3(3,0)**

Special Topics in Crime and Deviance: PR: Graduate standing or C.I. Seminar involving an in-depth examination of special topics relating to crime and deviance. *Occasional.*

Abbrev: (29 of 30 chars) Special Topics in Crime & Dev

Repeat For Credit: True Max Times: 3

Discussion with others: Consulted w/Criminal Justice Dept. Correspondence attached.

Rationale: This is a new course that will rotate topics in crime & deviance, one of the four areas of concentration in the graduate programs in Sociology.Topics may be repeated, but not within a 3-year period.

2. Special Topics Additions

College of Engineering and Computer Science Special Topics Additions

Tabled at April 20, 2015 meeting. Further discussion needed with Statistics Department. Dr. Weishampel met with Statistics, IEMS and Computer Science regarding an MOU. Still in progress.

ESI 6938 **ECS-IEMS** **3(3,0)**

Optimization and Data Mining: PR: ESI 5306 or ESI 6418. Optimization modeling is widely used in operations research for a variety of applications such as scheduling, resource allocation, planning of facilities etc. In this course we will demonstrate another use of optimization, that of analyzing data. Basic optimization theory and popular data analysis algorithms from an optimization point of view. *Occasional.*

Abbrev: (23 of 30 chars) DM Apps of Optimization

Discussion with others: Comments were requested from Computer Science ("CS has no objections to this course" email from Dr. Gary Leavens, 3/30/2015 8:47 am) and Statistics.

3. Course Revisions

College of Arts and Humanities Course Revisions

Tabled. Committee questioned Max Times: 2 revision, requested CAH report how they track the differences in courses when a student takes it twice and also asked for the policy to be checked regarding this question.

LIT 6039 **Studies in Contemporary Poetry** **3(3,0)**

PR: Graduate standing in MFA Creative Writing program or C.I.

English language poetry from 1945 to the present. Emphasis on American poets, but others such as English or Australian will be included. May be used in the degree program a maximum of 2 times only when course content is different.

Repeat For Credit: ~~No~~ Yes Max Times: ~~1~~ 2

Discussion with others: None.

Rationale: MFA CW faculty voted unanimously to make this course repeatable so that students will read more works by contemporary authors.

Majors taking course: Creative Writing MFA students

Tabled. Committee questioned Max Times: 2 revision, requested CAH report how they track the differences in courses when a student takes it twice and also asked for the policy to be checked regarding this question.

LIT 6076 **Studies in Contemporary Nonfiction** **3(3,0)**

PR: Admission to the Creative Writing MFA Program or C.I. based on submission of manuscript. Comprehensive study of nonfiction, including memoir, personal essay, literary journalism, and/or nature writing, with special emphasis on craft. May be used in the degree program a maximum of 2 times only when course content is different.

Term Offered: ~~Odd Fall~~ Occasional

Repeat For Credit: ~~No~~ Yes Max Times: ~~1~~ 2

Discussion with others: None.

Rationale: MFA CW faculty voted unanimously to make this course repeatable so that students will read more works by contemporary authors.
Majors taking course: Creative Writing MFA students.

Tabled. Committee questioned Max Times: 2 revision, requested CAH report how they track the differences in courses when a student takes it twice and also asked for the policy to be checked regarding this question.

LIT 6097 Studies in Contemporary Fiction 3(3,0)

PR: Graduate standing in MFA in Creative Writing program or C.I.
Fiction in the last 20 years in the United States and Britain. May be used in the degree program a maximum of 2 times only when course content is different.
Repeat For Credit: ~~No~~ Yes Max Times: ~~1~~ 2
Discussion with others: None.
Rationale: MFA CW faculty voted unanimously to make this course repeatable so that students will read more works by contemporary authors.
Majors taking course: Creative Writing MFA students.

College of Engineering and Computer Science Course Revisions

Course approved pending approval of the lab fee. Additional information requested regarding the lab coat, lab glasses and the list of dissection tools.

~~EML 5587C~~ Mechanics of Biostructures I 3(2,3)
BME 5587C

PR: Graduate standing or C.I.
Part I of a two semester course. Mechanical analysis of hard ~~(bone)~~ and soft ~~(organs, connective tissues, etc.) biostructures~~ tissues and ~~the analysis includes preparation~~ prosection lab on human anatomy and ~~experimental testing for constitutive equations for predictive modeling.~~ physiology. Term Offered: ~~Occasional~~ Fall
Rationale: This course is Part I of a two semester course that is a core requirement for all students in biomedical engineering and will serve as the educational foundation for all future bme classes.
Majors taking course: MS in Biomedical Engineering

Course approved pending approval of the lab fee. Additional information requested regarding the lab coat, lab glasses and the list of dissection tools.

~~EML 5588C~~ Mechanics of Biostructures II ~~3(2,3)~~
BME 5588C 3(2,2)

PR: ~~EML 5587C.~~ BME 5587C or C.I.
Part II of a two semester course. ~~Mechanical~~ Cell physiology and engineering principles applied to analysis of ~~hard (bone)~~ cellular processes and ~~soft (organs, connective tissues, etc) biostructures~~ prosection anatomy lab on human anatomy and ~~the analysis includes preparation and experimental testing for constitutive equations for predictive modeling.~~ physiology.
Term Offered: ~~Occasional~~ Spring
Rationale: This course is Part II of a two semester course that is a core requirement for all students in biomedical engineering and will serve as the educational foundation for all future bme classes.

College of Health and Public Affairs Course Revisions

Tabled. The committee suggested adding the word "epidemiology" back in the description since it is still in the title. Review with College of Nursing for overlap or conflict of interest. New information: Department would like to withdraw this Course Action Request.

HIM 6464C **Epidemiology, Analytics and Quality Management** **4(3,1)**

PR: Admission to M.S. in Health Care Informatics or C.I.

This course ~~introduces epidemiological principles~~ focuses on quality measures reporting for health care providers. Special focus includes the role of informatics professionals in identifying, parsing, understanding and ~~analytics for enhancing utilization management, quality improvement~~ utilizing data and ~~outcome assessment in the service delivery system.~~ data reporting systems.

Abbrev (26 of 30): ~~Epidem Analytics & Qual Mgmt~~ Epidem Analytic & Qual Mgm

Rationale: Existing course description was created when HCI program was proposed in 2008. Course description is being updated to better reflect current course content which has evolved to accommodate changes in technology, health care and the profession since 2008.

Majors taking course: Health Care Informatics MS

4. Course Deletions

College of Sciences Course Deletions

CHS 6539C **COS-CHEM** **4(2,3)**

Forensic Analysis Laboratory PR: CHM 5235, CHS 6548, or C.I. Forensic analytical laboratory techniques focusing on spectroscopic and chromatographic methods.

Rationale: Course separated into CHS 6545 & CHS6546.

5. Course Continuations