Graduate Council Curriculum Committee
March 7, 2018
2:30 p.m., Millican Hall room 395E

Agenda- updated 3/6

1. Welcome and call to order

2. Review of minutes from February 21, 2018

3. General business

4. Addition of CGS Masters of Cognitive Sciences effective Fall 2019

5. Addition of CECS Aerospace Engineering PhD effective Fall 2019

6. Revision of CECS Engineering Management MSEM effective Summer 2018

7. Revision of CAH English MA- Technical Communication Track effective Summer 2019

8. Revision of COS Political Science MA effective Summer 2018

9. Reactivation of COHPA Nonprofit Management Graduate Certificate- Out of State Cohort Track effective Fall 2018. There are no curricular changes.

10. Revision of CEHP Education PhD- Counselor Education Track effective Fall 2018

11. Inactivation of CEHP Severe or Profound Disabilities Graduate Certificate effective Fall 2018

12. Pending course action requests

13. Adjournment

Members of the Graduate Council Curriculum Committee

Kerry Purmensky, CAH, Chair	Devon Jensen, CGS Liaison
Jim Moharam, Steering Liaison, COP	Mostafa Bassiouni, CECS
Paul Goldwater, CBA	Joellen Edwards, CON
Elsie Olan, CEHP	Foard Jones, CBA
Jennifer Sandoval, COS	David Hagan, COP
Cheyenne Ro, RCHM	Lynn Hepner, CAH
Art Weeks, CECS	Jana Jasinski, COS
Diane Andrews, CON	Jesse Mendez, CEHP
Steven Ebert, COM	Saleh Naser, COM
Mercedeh Khajavikhan, COP	Youcheng Wang, RCHM
Terrie Sypolt, LIB	Ross Wolf, COHPA
Joshua Troche, COHPA	Andrea Pulido, GSA

University of Central Florida

Graduate Program Recommendation Form - ADDITIONS ONLY

This form is to be used to **ADD** degree programs, tracks, or certificate programs. If there are tracks being added to the program, 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.

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

☑ If applicable, a written agreement from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate.

☑ Course Action Request forms, as needed.

☑ Library assessment of resources.

College/Unit(s) Submitting Proposal: CAH / Philosophy

Proposed Effective Term/Year: Fall 2019

Unit(s) Housing Program: College of Graduate Studies

Name of program, track and/or certificate: Masters of Cognitive Sciences

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

DELIVERY: Program will be delivered: ☑ Face to Face   ☐ UCF Online   ☐ Mixed Delivery

Will the program be a **market tuition rate** program?   ☐ Yes   ☑ No

Will the program be a **cost recovery** program?   ☐ Yes   ☑ No

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

A 36 credit hour Masters degree in the Cognitive Sciences: the interdisciplinary study of the complex integration of biological, neurological, social, cultural, and technological factors that support cognition. Many students have expressed an interest in the program (particularly those currently taking the certificate). Graduates will be prepared for further academic pursuits and/or a wide variety of careers. They will be flexible, experienced in interdisciplinary collaboration, and have experience in combining the theories, research methods, and applications of different cognitive sciences disciplines to address issues and questions related to cognition and cognitive systems. This is relevant to a wide variety of industries and applications in the local and state areas as well as nationally and internationally.

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 the addition of a program, track or certificate?

> Some students taking the Graduate Certificate in Cognitive Sciences may apply to take this Masters in Cognitive Sciences. They will be able to do so and all certficate courses will count towards the Masters.

Future Students

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

> Demand for the Cognitive Sciences Graduate Certificate program has grown to nearly exceed capacity (10 accepted admission in Fall 2017, 36 active students). A master's in cognitive sciences taps that same demand, intensifying and extending the training it offers.

	Year 1	Year 2	Year 3
Headcount	14	29	40
SCHs	35.7	73.95	102

Indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)
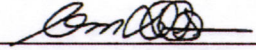
> This base of knowledge and skills is relevant to a wide variety of industries and applications. They have applications in information technology, engineering, design, medicine, education, entertainment, manufacturing, transportation, high technology, and many other fields.
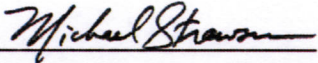
Please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

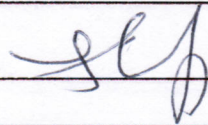|	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Graduate Faculty (Print) Mason Cash   (Signature) _____ Date 11/14/2017
Program Coordinator

Department Chair (Print) MICHAEL STRAWSER   (Signature) _____ Date 11/14/2017
/Director

College Academic (Print) _____ (Signature) _____ Date _____
Standards
     Elizabeth Klonoff
     Vice President for Research
College Dean (Print)   Dean of Graduate Studies   (Signature) _____ Date 3/23/18

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

Vice President for Research and Dean of the College of Graduate Studies

(Print) _____ Elizabeth Klonoff _____ (Signature) _____ Date _____
     Vice President for Research
     Dean of Graduate Studies

Approval

Provost and Executive Vice President _____ Date _____

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

Proposal: Master's of Cognitive Sciences Program

PROGRAM DESCRIPTION

The Master's of Cognitive Sciences program focuses on the interdisciplinary study of cognitive systems. It integrates a diverse range of approaches to examining cognitive processes, investigating the structures that support and scaffold cognition, attempting to understand, model and construct cognitive systems, and philosophically examining the foundations and applications of the cognitive sciences. It also includes applications of these investigations to many areas of human endeavor, including technology design, communication, training, education and clinical settings.

The interdisciplinary program is founded on the belief that cognition is a complex range of phenomena that cannot be well understood from any single disciplinary perspective. Thus, the program includes core interdisciplinary courses on the Cognitive Sciences, as well as drawing from related courses from many areas including Communication Sciences and Disorders, Education, Engineering and Computer Science, Linguistics, Neuroscience, Philosophy and Psychology.

The Master's of Cognitive Sciences is designed for students from diverse backgrounds who wish to: (i) deepen and broaden knowledge gained in a related bachelor's degree, (ii) prepare for further graduate study in a PhD programs in the cognitive sciences or in the discipline of the student's primary research focus, or (iii) prepare for a professional career in any of the diverse fields in which research skills in the cognitive sciences and a deep understanding of cognition would be an asset.

ADVISING

Your advisor is initially the program director. After you have chosen a Committee Chair (no later than the end of the first semester), this person becomes your advisor.

Your advisor should be consulted in developing an overall Program of Study for the degree. Elective courses should be chosen carefully in consultation with your advisor, to help prepare for and support your intended Thesis topic. The advisor should also be consulted in formulating your Thesis Proposal, and in identifying prospective Committee Members.

CURRICULUM

The Interdisciplinary Master's of Cognitive Sciences program requires a minimum of 36 credit hours beyond the bachelor's degree. This includes:
- 9 credit hours of Core Courses in interdisciplinary cognitive sciences and research methodologies.
- At least 3 credit hours of Quantitative Methods from the "Quantitative Methods—Required" list
- At least 15 hours of Elective courses:
    - At least 6 hours from one Area
    - At least 6 hours from a second Area
    - At least 3 hours from a third Area
- Thesis (9 credits):
    - The capstone experience will consist of 9 credit hours of thesis and the successful presentation/defense of a Master's Thesis.

Note: at least half of the credit hours used to meet program requirements must be at the 6000 level or higher.

According to UCF policy, at least 50 percent of the credits taken for a degree must be in a single field of concentration. The Core courses and thesis/research project count towards this requirement. Students should choose elective courses carefully, in consultation with their advisor, in order to satisfy this requirement.

Transfer Credits

Any credits taken prior to the term of admission to the program and used to satisfy specific program requirements are considered graduate transfer credits. The acceptance of transfer credits in a program of study must be approved by the program director and should be finalized by the end of the second semester of program enrollment (based on full-time enrollment), and must be finalized by the end of the term prior to the term of expected graduation.

The thesis credit requirements may not be satisfied by transfer credits.

No more than 9 credit hours from a previously earned degree may be used to satisfy the requirements of a master's degree, except as part of a formally approved accelerated bachelor's/master's program.

The above requirement does not apply to Graduate Certificate programs. So, for instance, someone who has completed the Graduate Certificate in Cognitive Sciences can transfer all of the courses credited towards the Certificate into the Master's Program.

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

Required Courses—9 Credit Hours
The program recommends that students complete these courses in the first year of the certificate.
- PHI #### Foundations of Cognitive Science
- PHI 5327 Topics in the Cognitive Sciences (3 credit hours)
- PHI 5340 Research Methods in the Cognitive Sciences (3 credit hours)

Elective Courses—18 Credit Hours

Quantitative Methods courses 3 Credit Hours

Choose 3 credit hours from the Quantitative Methods area.

Quantitative Methods (3 credit hours)
- DIG 5876 Quantitative Aspects of Modeling and Simulation (3 credit hours)
- EDF 6486 Research Design in Education
- EDF 7403 Quantitative Foundations of Educational Research
- ESI 5219 Engineering Statistics
- MAP 6111 Mathematical Statistics
- MAP 6118 Introduction to Nonlinear Dynamics
- PHY 5524 Statistical Physics
- STA 5176 Introduction to Biostatistics
- STA 5205 Experimental Design
- STA 5206 Statistical Analysis
- SYA 6455 Research Analysis

Restricted Electives: Core Courses 15 Credit Hours

Choose at least 6 credit hours from one of the following Areas.
Choose at least 6 credit hours from a second of the following Areas.
Choose at least 3 credit hours from a third of the following Areas

Many of your elective courses should be chosen to provide theoretical and/or methodological support for your Thesis or Research Project.

Other relevant Core Area courses or elective courses, including up to 6 credit hours of suitable Independent Study courses, may be used in consultation with your advisor.

Cognition and Learning
- EGI 6305 Theory and Development of Creativity (3 credit hours)
- EDF 6141 Human Intelligence (3 credit hours)
- EDP 6213 Seminar in Applied Learning and Instruction I
- EDP 7517 Facilitating Learning, Development & Motivation
- EME 6601 Instructional Simulation Design for Training and Education (3 credit hours)
- EME 6614 Instructional Game Design for Training and Education (3 credit hours)
- EME 6613 Instructional System Design (3 credit hours)
- EME 6646 Learning, Instructional Design, and Cognitive Neuroscience (3 credit hours)
- EXP 6506 Human Cognition and Learning (3 credit hours)
- IDS 6504 Adult Learning (3 credit hours)

Cognitive Systems
- CAP 5100 Human-Computer Interface Design (3 credit hours)
- CAP 6671 Intelligent Systems: Robots, Agents, and Humans (3 credit hours)
- EEL 5874 Expert Systems and Knowledge Engineering (3 credit hours)
- EIN 6258 Human Computer Interaction (3 credit hours)
- EXP 6541 Advanced Human-Computer Interaction (3 credit hours)
- INP 5825 Human-Computer Interface (HCI) Design: A Team Approach (3 credit hours)
- PCB 6675C Evolutionary Biology
- PCB 6677 Molecular Evolution & Phylogenetics
- PHY 5715 Physical Basis of Life (3 credit hours)
- SPA 6437 Communication Foundations and Assistive/Instructional Technology for Communication (3 credit hours)

Language and Communication
- ANG 5620 Language and Culture (3 credit hours)
- CAP 6640 Computer Understanding of Natural Language (3 credit hours)
- COM 6046 Interpersonal Communication (3 credit hours)
- DIG 5487 Principles of Visual Language (3 credit hours)
- LIN 5137 Linguistics (3 credit hours)
- LIN 6932 Problems in Linguistics (3 credit hours)
- MMC 6402 Mass Communication Theory
- MMC 6407 Visual Communication Theory
- MMC 6445 Quantitative Research Methods in Mass Communication
- MMC 6446 Qualitative Research Methods in Mass Communication
- MMC 6607 Communication and Society
- SPA 6410 Aphasia and Related Disorders (3 credit hours)
- SPA 6417 Cognitive/Communicative Disorders (3 credit hours)
- TSL 6252 Sociolinguistics for ESOL (3 credit hours)
- TSL 6250 Applied Linguistics in ESOL (3 credit hours)

Modeling Cognition
- CAP 5055 AI for Game Programming (3 credit hours)

- CAP 5636 Advanced Artificial Intelligence (3 credit hours)
- CAP 6640 Computer Understanding of Natural Language (3 credit hours)
- CAP 6671 Intelligent Systems: Robots, Agents, and Humans (3 credit hours)
- DIG 5875C Introduction to Modeling and Simulation
- EEL 5669 Autonomous Robotic Systems
- EME 6613 Instructional System Design
- EEL 6876 Current Topics in Artificial Intelligence (3 credit hours)
- EEL 6878 Modeling and Artificial Intelligence (3 credit hours)
- EEL 6812 Introduction to Neural Networks (3 credit hours)
- EEL 6875 Autonomous Agents (3 credit hours)
- EME 7634 Advanced Instructional Systems Design
- EML 5271 Intermediate Dynamics
- EML 5311 System Control
- EML 5587C Mechanics of Biostructures I
- ESI 6217 Statistical Aspects of Digital Simulation
- ESI 6358 Decision Analysis
- IDS 6146 Modeling and Simulation Systems
- IDS 6147 Perspectives on Modeling and Simulation
- IDS 6148 Human Systems Integration for Modeling and Simulation
- IDS 6938: Modeling Neuronal Systems

Neuroscience
- PSB 6348 The Neuroanatomical Basis of Psychological Function (3 credit hours)
- BMS 6636 Brain and Behavior
- PCB 5837 Cellular and Molecular Neuroscience
- PCB 5838 Cellular and Molecular Basis of Brain Functions
- PHT 6115C Gross Anatomy/Neuroscience I (6 credit hours)
- PHT 6118C Gross Anatomy/Neuroscience II (6 credit hours)
- PSB 6348 The Neuroanatomical Basis of Psychological Function (3 credit hours)
- PSB 6352 Neuroimaging Design and Analysis Methods
- PSB 7349 Advanced Topics in Cognitive Neuroscience
- ZOO 5745C Essentials of Neuroanatomy (4 credit hours)
- ZOO 5748C Clinical Neuroanatomy (5 credit hours)
- ZOO 5749C Clinical Neuroscience (5 credit hours)

Philosophy
- IDS 6308 Ways of Knowing (3 credit hours)
- LIT 6435 Rhetoric of Science
- PHI 5225 Philosophy of Language (3 credit hours)
- PHI 5325 Topics in Philosophy of Mind (3 credit hours)
- PHI 5328 Philosophies of Embodiment (3 credit hours)
- PHI 5329 Philosophy of Neuroscience (3 credit hours)

Psychology
- DEP 5057 Developmental Psychology (3 credit hours)
- EXP 5208 Sensation and Perception (3 credit hours)
- EXP 5256 Human Factors I (3 credit hours)
- EXP 6116 Visual Performance (3 credit hours)
- EXP 6255 Human Performance (3 credit hours)
- EXP 6257 Human Factors II (3 credit hours)
- EXP 6506 Human Cognition and Learning (3 credit hours)
- EXP 6541 Advanced Human Computer Interaction (3 credit hours)

- PET 6062C Perceptual Motor Development
- PSB 6348 The Neuroanatomical Basis of Psychological Function (3 credit hours)
- PSY 5605 History and Systems of Psychology (3 credit hours)
- PSY 7315 Psychometric Theory and Practice
- SOP 5059 Advanced Social Psychology (3 credit hours)

Research Methods
- COM 6303. Qualitative Research Methods in Communication
- EDF 7475 Qualitative Research in Education
- EML 6104 Classical Thermodynamics
- HIM 6119C Biostatistics and Decision Analysis
- IDC 6700 Interdisciplinary Approach to Data Visualization
- IDS 6694 Experimental Design & Analysis in Biomedical Sciences
- ISM 7938 Theoretical Foundations for Information Systems Research
- MAD 5205 Graph Theory I
- MAP 5117 Mathematical Modeling
- MAP 5336 Ordinary Differential Equations and Applications
- MAP 6383 Mathematical Methods for Image Analysis
- MAP 6469 Bayesian Analysis and Approximation Theory
- MAP 7119 Advanced Nonlinear Dynamics
- MAS 5145 Advanced Linear Algebra and Matrix Theory
- MAT 5712 Scientific Computing
- PSY 6216C Research Methodology
- PSY 7217C Advanced Research Methodology I (4 credit hours)
- PSY 7218C Advanced Research Methodology II (4 credit hours)
- PSY 7219C Advanced Research Methodology III (4 credit hours)
- STA 5104 Advanced Computer Processing of Statistical Data
- STA 6106 Statistical Computing I
- STA 6329 Statistical Applications of Matrix Algebra
- STA 6857 Applied Time Series Analysis
- SYA 6305 Social Research
- SYA 6315 Qualitative Research Methods
- SYA 6425 Design and Conduct of Social Surveys

Unrestricted Elective Course— 3 Credit Hours

Choose 3 credit hours of elective courses either from the above Areas or from other relevant courses, chosen in consultation with your advisor.

The following list contains some examples of courses that might be considered:
- CAP 5415 Computer Vision (3 credit hours)
- CAP 5610 Machine Learning (3 credit hours)
- CAP 6676 Knowledge Representation (3 credit hours)
- COM 6467 Studies in Persuasion (3 credit hours)
- ENC 6740 Topics in Rhetoric and Composition (3 credit hours). NOTE: Where topic is appropriate; topic should be cleared in advance with your advisor.
- EXP 6257 Human Factors II (3 credit hours)
- IDS 7657 Professional Collaboration Around Language Issues (3 credit hours)
- SOP 5059 Advanced Social Psychology (3 credit hours)

Thesis— 9 Credit Hours
- IDS XXXX (9 credit hours)

All students will engage in a capstone research experience, ideally on a topic that brings together different cognitive sciences disciplines and research methods.

The Thesis is designed to be similar to research Masters degrees in other Cognitive Sciences disciplines such as Psychology, Philosophy, Modeling and Simulation, Computer Science, Communications, or Communication Disorders. However topics that span or interconnect such disciplines are encouraged (e.g. in human computer interaction, educational technology, or experimental philosophy). The emphasis is on students developing and enhancing their research skills and applying them to independently address an interesting question in the cognitive sciences.

The first step in the Thesis is to identify a faculty member who agrees to serve as your Chair and Advisor. This should be done by the end of the first semester in the program. This person will be consulted in selection of courses, creation of the Proposal and identification or prospective Committee members.

As early as possible, and no later than the end of their second semester in the program, students are required to present a Thesis Proposal to the Cognitive Sciences Graduate Committee. This proposal must present the thesis topic, preliminary bibliography, plan of approach, and identify the Committee chair and at least two or more Committee members, one of whom must be from a different discipline than the others.

Since this is an interdisciplinary degree, students are encouraged to choose topics suitable for having co-chairs from different disciplines, in which both Chairs meet regularly with you regarding the project. In this case you must have at least one other Committee Member.

The Committee Members and Committee Chair must approve the proposal before submission to the Cognitive Sciences Graduate Committee.

By the end of their plan of study, students must complete 9 credit hours of thesis. The thesis must be prepared in writing as well as being presented and defended orally.

The Thesis is a formal written document. The introduction cites similar, related, and antecedent work. The body explains the purposes of the project, the method employed, and any evaluation of the project that was performed. The conclusion includes plans for future work and a reflection on lessons learned from the research process. The thesis also includes an archival copy of any resulting creative product. Both the thesis and the creative product (if any) must be delivered in digital form, acceptable by the UCF library according to its standards for digital dissertations and theses.

APPLICATION REQUIREMENTS

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the Admissions section of the Graduate Catalog. Applicants must apply online. All requested materials must be submitted by the established deadline.
- In addition to the general UCF graduate application requirements, applicants to this program must provide:
- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Goal statement
  - This explains your research interests and any research accomplishments so far, indicates a likely direction of your research when in the program, and describes what you expect to get out of the program and how the program relates to your future plans after graduation. (This will be up tp three pages, and in prose so we have an indication of how well you express yourself in writing.)
- Curriculum Vita (CV)
  - This lists your name and contact information, education, point form list of research interests, titles of previous theses, publications, or research presentations (if any), scholarships received, research experience (describe and list supervisors), teaching experience, and other relevant experience.

- Three letters of recommendation from people who can speak to your academic abilities and your suitability for this program.

Applicants should note the minimal requirements for admission to the program, although 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.

Involved faculty

The following is a list of UCF faculty who are involved with the creation of the Master of Cognitive Sciences program and those who have expressed interest in supporting the program via advising students, offering courses, etc.

- Jonathan Beever, Assistant Professor, Department of Philosophy and Texts & Technology Program
- Mason Cash, Associate Professor, Department of Philosophy
- Luis H. Favela, Assistant Professor, Department of Philosophy
- Stephen Fiore, Professor, Department of Philosophy and Institute for Simulation and Training
- Luciana Garbayo, Department of Philosophy and Medical Education
- Derek Green, Lecturer, Department of Philosophy
- Donald Jones, Assistant Professor, Department of Philosophy
- Jonathan D. Kibble, Professor, Physiology and Medical Education
- Lanlan Kuang, Assistant Professor, Department of Philosophy
- Daniel McConnell, Associate Lecturer, Department of Psychology
- Jennifer Mundale, Associate Professor, Department of Philosophy
- Mark B. Deider, Associate Professor, Department of Psychology
- Michael Strawser, Professor, Department of Philosophy

Library Assessment for Proposed Masters in Cognitive Sciences Degree

> **A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5. Provide the total number of volumes and serials available in this discipline and related fields. List major journals that are available to the university's students. Include a signed statement from the Library Director that this subsection and subsection B have been reviewed and approved.**

In reviewing library support for the proposed Masters in Cognitive Sciences, the following aspirational peer institutions, which have similar master's-level graduate programs in Cognitive Science, were used for comparison:

- The Johns Hopkins University
- Michigan Technological University
- Carleton University [Canada]

All of the above schools have similar master's-level graduate programs in Cognitive Science.

Databases: UCF Libraries' databases support the proposed program. The one essential database to which the UCF Libraries do not subscribe is *MIT CogNet* ($7,500 annually with estimated +5% annual increase). Since its inception in 2000, *MIT CogNet* has become an essential resource for those interested in cutting-edge primary research across the range of fields that study the nature of the human mind. The full text of more than 700 books published by the MIT Press are included in *MIT CogNet*. Content continues to be added on an ongoing basis, with the following new books now available: *Brain Computation as Hierarchical Abstraction* (Ballard), *Developmental Robotics* (Cangelosi and Schlesinger), *The Minimalist Program, 20th Anniversary Ed.* (Chomsky), *Minds Without Meanings* (Fodor and Pylyshyn), *After Phrenology* (Anderson), *Grammatical Theory and Bilingual Codeswitching* (MacSwan). Among the journals in the database are *Artificial Life*, *Computational Linguistics*, *Evolutionary Computation*, *Journal of Cognitive Neuroscience*, *Linguistic Inquiry*, *Neural Computation*, *Computational Psychiatry*, *Network Neuroscience*, and *Open Mind: Discoveries in Cognitive Science.*

Journals: UCF Libraries' journal holdings list compares very favorably with those of the compared institutions.

Books: The analysis of the book collection shows that UCF Libraries' book holdings compare favorably with those of the compared institutions.

Summary: After comparing the selected institutions library collections to UCF Libraries' current collection, the proposed Master's in Cognitive Sciences lacks one database – *MIT CogNet* – that would support curriculum and research needs of faculty and students.

Comparative Analysis on key library resources supporting the new Masters in Cognitive Sciences:

> **Databases:** Currently, UCF Libraries have the basic databases needed to support a Masters in Cognitive Science. The one essential database to which the UCF Libraries do not subscribe is *MIT CogNet,* which has been an essential resource for cutting edge primary research in the study of human mind, including cognitive sciences. It includes books, journals, e.g. *Journal of Cognitive Neuroscience* and *Open Mind: Discoveries in Cognitive Science.* The annual subscription cost for *MIT CogNet* is $7,500 plus a 5% inflation.

DATABASE	UCF	JOHNS HOPKINS	MICHIGAN TECH	CARLETON
Annual Reviews	X	X	X	X
Citation Connection	X			
ERIC	X	X	X	X
Linguistics and Language Behavior Abstracts	X	X		X
MEDLINE/PubMed	X	X	X	X
MIT CogNet		X		X
Philosopher's Index	X	X	X	X
PhilPapers	X	X		X
PsycINFO	X	X	X	X
ScienceDirect	X	X	X	X
SCOPUS	X	X	X	X
Web of Science	X	X	X	X

Journals: The UCF Libraries journal list compares favorably with the holdings of the peer institutions. UCF Libraries offer access to 19 of the following 23 journals.

The 4 journals UCF doesn't have: *Cognitive Neurodynamics, Journal of Consciousness Studies, Review of Philosophy and Psychology*, and *Social Cognition* are important, especially if this proposed program ever moves to a doctoral level. The total of subscription costs for them combined will exceed $3,000 annual. However, at the Master's degree level, the current journal subscriptions are adequate to support the proposed program.

JOURNAL TITLE	UCF	JOHNS HOPKINS	MICHIGAN TECH	CARLETON
Adaptive Behavior	X	X	X	X
Brain and Cognition	X	X	X	X
Behavioral and Brain Sciences	X	X	X	X
Cognition	X	X	X	X
Cognitive, Affective, and Behavioral Neuroscience	X	X		X
Cognitive Neurodynamics	$823	X		X
Cognitive Science	X	X	X	X
Cognitive Systems Research	X	X		
Frontiers in Psychology: Cognitive Science (open access)	X	X	X	X
Journal of Consciousness Studies	$528	X		X
Journal of Memory and Language	X	X	X	X
Memory and Cognition	X	X	X	X
Mind and Language	X	X	X	X
Minds and Machines	X	X		X
Phenomenology and the Cognitive Sciences	X	X		X
Philosophical Psychology	X	X		X
Psychological Science	X	X	X	X
Psychonomic Society Journals	X	X		X
Review of Philosophy and Psychology	$545	X		X
Social Cognition	$995	X		

Theory and Psychology	X	X	X	X
Trends in Cognitive Sciences	X	X	X	
Wiley Interdisciplinary Reviews: Cognitive Science	X	X	X	X

Books: The holdings of the UCF Libraries were compared to the aspirational benchmark institutions; the following chart provides details regarding how the collections compare for title count using selected keywords or Library of Congress Subject Headings (Library of Congress Subject Headings are indicated by an asterisk). UCF Libraries have adequate monograph (book) collections to support the proposed M.A. in Cognitive Science and compares favorably with the aspirational peers.

<u>Book Analysis by Titles:</u>

BOOK TITLE	UCF	JOHNS HOPKINS	MICHIGAN TECH	CARLETON
Anderson, J. R., 2007. *How Can the Mind Occur in the Physical Universe?*, Oxford: Oxford University Press	X	X	X	X
Bechtel, W., 2008. *Mental Mechanisms: Philosophical Perspectives on Cognitive Neurosciences*, New York: Lawrence Erlbaum	X	X		
Bechtel, W., & Graham, G. (eds.), 1998. *A Companion to Cognitive Science*, Malden, MA: Blackwell		X		X
Boden, M. A., 2006. *Mind as Machine: A History of Cognitive Science* , Oxford: Clarendon	X			X
Chemero, A., 2009, *Radical Embodied Cognitive Science,* Cambridge, MA: MIT Press	X			X
Churchland, P. M., 2007. *Neurophilosophy at Work*, Cambridge: Cambridge University Press	X	X		X
Churchland, P. S., 2002. *Brain-wise: Studies in Neurophilosophy*, Cambridge, MA: MIT Press	X			
Clark, A., 2001. *Mindware: An Introduction to the Philosophy of Cognitive science*, New York: Oxford University Press	X			X
Clark, A., 2008. *Supersizing the Mind: Embodiment, Action, and Cognitive Extension*, New York: Oxford University Press	x	X		
Dawson, M. R. W., 1998. *Understanding Cognitive Science*, Oxford: Blackwell	X	X		
Dreyfus, H. L., 1992. *What Computers Still Can't Do*, (3rd ed.). Cambridge, MA: MIT Press	X	X		X

Eliasmith, C., 2013. *How to Build a Brain: A Neural Architecture for Biological Cognition*, Oxford: Oxford University Press	X	X		
Eliasmith, C., & Anderson, C. H., 2003. *Neural Engineering: Computation, Representation and Dynamics in Neurobiological Systems*, Cambridge, MA: MIT Press	X	X		
Friedenberg, J. D., & Silverman, G., 2005. *Cognitive Science: An Introduction to the Study of Mind*, Thousand Oaks, CA: Sage				X
Gibbs, R. W., 2005, *Embodiment and Cognitive Science*, Cambridge: Cambridge University Press	X	X		X
Goldman, A., 1993. *Philosophical Applications of Cognitive Science*, Boulder: Westview Press	X			X
Johnson-Laird, P., 1988. *The Computer and the Mind: An Introduction to Cognitive Science*, Cambridge, MA: Harvard University Press	X	X	X	X
Metzinger, T., and J. Windt, eds., 2016. *Open Mind: Philosophy and the Mind Sciences*, Cambridge, MA.: MIT Press	X	X		
Pessoa, L., 2013. *The Cognitive-Emotional Brain: From Interactions to Integration*, Cambridge, MA: MIT Press		X		X
Polk, T. A., & Seifert, C. M. (eds.), 2002. *Cognitive Modeling*, Cambridge, MA: MIT Press	X	X		X
Searle, J., 1992. *The Rediscovery of the Mind*, Cambridge, MA: MIT Press	X	X		X
Sun, R., ed., 2008. *The Cambridge Handbook of Computational Psychology*, Cambridge: Cambridge University Press			X	X
Sun, R., ed., 2012. *Grounding Social Sciences in Cognitive Sciences*, Cambridge, MA: MIT Press	X	X		
Thagard, P., 2005. *Mind: Introduction to Cognitive Science*, second edition, Cambridge, MA: MIT Press	X	X	X	X
Thagard, P., 2010. *The Brain and the Meaning of Life*, Princeton: Princeton University Press	X	X	X	X
Thagard, P., 2012. *The Cognitive Science of Science: Explanation, Discovery, and Conceptual Change*, Cambridge, MA: MIT Press	X	X		X

Thompson, E., 2007. *Mind in Life: Biology, Phenomenology, and the Science of Mind*, Cambridge, MA: Harvard University Press	X			
Von Eckardt, B., 1993. *What is Cognitive Science?*, Cambridge, MA: MIT Press	X	X		X
Wilson, R. A., & Keil, F. C. (eds.), 1999. *The MIT Encyclopedia of the Cognitive Sciences*, Cambridge, MA: MIT Press	X		X	X

Books Analysis by Subject:

KEYWORDS/SUBJECT HEADINGS	UCF	JOHNS HOPKINS	MICHIGAN TECH	CARLETON
Artificial intelligence*	7,576	8,330	473	2,499
Augmented reality*	36	19	28	31
Bayesian statistical decision theory*	337	421	139	250
Brain mapping*	31	100	32	26
Clinical psychology*	187	663	36	150
Cognitive neuroscience*	325	411	16	270
Cognitive psychology*	253	600	45	345
Cognitive science*	363	590	28	354
Complexity science	384	106	51	0
Computational neuroscience*	65	70	18	64
Cybernetics*	278	336	21	112
Developmental psychology*	645	770	32	562
Distributed cognition	5	7	4	8
Dynamical systems theory	89	118	11	0
Embodied cognition	32	97	29	0
Environmental psychology*	223	278	11	216
Extended cognition	15	20	3	0
Knowledge, Theory of*	3,113	4,163	1	1,664
Language acquisition*	691	1,018	193	607
Linguistics*	656	6,089	59	715
Machine learning*	413	578	52	465
Mathematical psychology	33	45	209	0
Metacognition*	64	51	2	44
Mind and body*	1,308	1,159	15	646
Modeling and simulation	2,837	1,545	52	0
Natural language processing*	308	259	319	279
Network neuroscience	391	706	126	0
Neural model	82	159	40	0
Neural networks (Neurobiology)*	163	150	7	104
Neurosciences*	368	2,806	23	311
Neurosciences – Philosophy*	26	28	59	16
Perception*	558	5,187	7	380
Philosophy and cognitive science*	32	110	37	29
Philosophy of mind*	565	1,010	7	536

Psychology, Experimental*	232	337	62	266
Psychology – Philosophy*	473	2,075	17	232
Psychophysiology	1,174	1,548	125	572
Robotics*	571	8,153	204	411
Social perception*	294	314	24	240
System theory	420	1,341	256	394
Team cognition	146	19	3	0
Virtual reality*	274	420	39	193
TOTALS	26,036	52,206	2,915	12,991

B. Describe additional library resources that are needed to implement and/or sustain the program through Year 5. Include projected costs of additional library resources in Table 2 in Appendix A. Please include the signature of the Library Director in Appendix B.

After comparing the selected institutions library collections to UCF Libraries' current collection, the proposed Masters in Cognitive Science should have adequate support on most databases, journals and books. However, it will lack a critical database – *MIT CogNet* – that would support curriculum and research needs of faculty and students. An annual subscription cost of $7,500 + 5% inflation is requested each year as new funding to support the proposed Master's in Cognitive Science.

In the unfortunate event library budget shortfalls occur, some existing resource subscriptions may be cut or scaled back.

Below illustrates the first six year's funding request:

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
$7,500	$7,875	$8,268	$8,681	$9,115	$9,570

APPENDIX B

Please include the signature of the Equal Opportunity Officer and the Library Director.
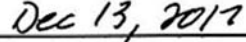
Signature of Equal Opportunity Officer	12-4-17 Date
Signature of Library Director	Dec 13, 2017 Date

This appendix was created to facilitate the collection of signatures in support of the proposal. Signatures in this section illustrate that the Equal Opportunity Officer has reviewed section II.E of the proposal and the Library Director has reviewed sections X.A and X.B.

Graduate Program Recommendation Form - ADDITIONS ONLY

This form is to be used to ADD degree programs, tracks, or certificate programs. If there are tracks being added to the program, 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.

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

☐ If applicable, a written agreement from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate.

☑ Course Action Request forms, as needed.

☑ Library assessment of resources.

College/Unit(s) Submitting Proposal: College of Engineering and Computer Science / Mechanical and Aerospace Engineering

Proposed Effective Term/Year: Fall 2019

Unit(s) Housing Program: Mechanical and Aerospace Engineering

Name of program, track and/or certificate: PhD in Aerospace Engineering

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

DELIVERY: Program will be delivered: ☐ Face to Face ☐ UCF Online ☑ Mixed Delivery

Will the program be a **market tuition rate** program? ☐ Yes ☑ No

Will the program be a **cost recovery** program? ☐ Yes ☑ No

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

Description:
The Aerospace Engineering PhD program will offer students the opportunity, through both coursework and research, to meet the highest standards of academic achievement in the core areas: Aerodynamics, Aerospace Systems Design, Astrodynamics and Space Applications, Dynamics and Control, Propulsion, Structures and Materials.
Rationale:
UCF College of Engineering and Computer Science (CECS) enrolls the most Aerospace Engineering (AE) (CIP code: 14.0201) undergraduate students in the SUS (growth of 59% since 2005 [1]) without providing a pathway to an AE doctoral degree. CECS has successfully established an MSAE program with a strong history of aerospace-related funding, research and theses outcomes to support the rationale for an active AE PhD program. The proposed AE PhD program aligns tightly with 3 of UCF's 5 key visionary goals: to achieve international prominence in key programs of graduate study and research, to become more inclusive and diverse and to be America's leading partnership university. It supports SUS BOG goals for teaching and learning in the 2025 System Strategic plan [2] including Excellence, Productivity and Strategic Priorities for a Knowledge Economy, which calls for increasing student access and success in STEM degrees with AE as a key program to meet both state and national economic and workforce needs [2]. The proposed AE PhD program promises advanced graduate education with diversity [1] to support more than 11,600 aerospace-related companies and a growing commercial space industry in Florida [3,4].
[1] SUS Interactive Data
[2] 2025 System Strategic plan & Programs of Strategic Emphasis
[3] Aviation and Aerospace Brief, Enterprise Florida
[4] http://www.spaceflorida.gov

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:

Mechanical Engineering PhD program

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 the addition of a program, track or certificate?

The addition of the AE PhD program will be of positive benefit to current ME PhD students since they will have access to the additional courses, to be introduced by the addition of the program, as potential electives during their course of study. The library resources that will be added for the AE PhD program includes journals and literature that have equal importance and relevance to current ME PhD program students. In addition, it is envisaged that the increase in research funds generated by an active AE PhD program will benefit all ME and AE students in the department through improved laboratory instrumentation and increase in collaborative research opportunities.

Future Students

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

The AE PhD degree is intended for students who have earned an MS or BS degree in Aerospace Engineering, Mechanical Engineering or a closely related field of Engineering. It provides a pathway for students to meet the timely need for advanced research in relevant areas where the university and state have made significant investments for growth and economic diversification. This includes advanced manufacturing for the development of aerospace parts and components including sensors, solar cells and additive manufactured high temperature components for propulsion. Future students will support positioning of Florida as a national leader in aircraft manufacturing, an industry projected to grow by 5 percent annually during the next 20 years [1]

	Year 1	Year 2	Year 3
Headcount	10	12	15
SCHs	240	288	360

Indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

The proposed AE PhD program promises advanced graduate education and research training for graduates to support the growing aerospace and commercial space industry in Florida as Engineering and Research managers and leaders. The program supports needs for scientists and postdoctoral scholars in the 20 major military installations in Florida.Graduates will have career opportunities as future faculty and researchers to support research and scholarly activities at SUS institutions or elsewhere.

Please complete the following table on financial support:
(Specify all forms of support – assistantships, fellowships, and tuition remission.)

	Number of assistantship students GRA/GTA	Source of funds GRA/GTA	Number of fellowship students (specify fellowship) ORC + External	Number of tuition remissions	Source of funds
Year 1	5/2	C&G/E&G	3	0	N/A
Year 2	7/2	C&G/E&G	3	0	N/A
Year 3	8/3	C&G/E&G	4	0	N/A

Signatures

Recommend Approval *(all approval levels must be signed)*

Graduate Faculty Program Coordinator:

Print: _____Jihua Gou_____   Signature: _____   Date: 02/15/18

Department Chair / Director

Print: _____Yoav Peles_____   Signature: _____   Date: 2/15/18

College Academic Standards

Print: _____Mostafa Bassiouni_____   Signature: _____M. Bas_____   Date: 2/16/18

College Dean

Print: _____Michael Georgiopoulos_____   Signature: _____   Date: 2/19/18

Graduate Council

Print: _____   Signature: _____   Date: _____

Vice President for Research and Dean of the College of Graduate Studies:

Print: _____   Signature: _____   Date: _____

Approval

Provost and Executive Vice President:

Print: _____   Signature: _____   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

Complete and current Graduate Catalog copy (www.graduatecatalog.ucf.edu), including description, curriculum, contact information, application requirements, and application deadlines.

PROGRAM DESCRIPTION

The Aerospace Engineering PhD program offers students the opportunity, through both coursework and research, to meet the highest standards of academic achievement in the core areas: Aerodynamics, Aerospace Systems Design, Astrodynamics and Space Applications, Dynamics and Control, Propulsion, Structures and Materials.

The Doctor of Philosophy degree in Aerospace Engineering is intended for students who have earned an MS or BS degree in Aerospace Engineering, Mechanical Engineering or a closely related field of Engineering.

CURRICULUM

The Aerospace Engineering PhD program requires a minimum of 72 credit hours beyond a bachelor's degree. This program requires 15 Dissertation (XXX 7980) credit hours minimum and may include up to a total of 12 credit hours combined of Directed (XXX 6918) or Doctoral Research (XXX 7919) and/or Independent Study (XXX 6908) with an approved Program of Study. At least 45 hours of the Program of Study must consist of formal coursework, exclusive of Directed Research (XXX 6918), Doctoral Research (XXX 7919) and Independent Study (XXX 6908).

Students entering the program with a master's degree are required to complete 42 credit hours minimum, of which 15 credit hours minimum must be formal coursework. The remaining 12 hours can be chosen by the student in consultation with the adviser and the dissertation committee and with the approval of the graduate program coordinator. These credit hours may include doctoral directed research hours or doctoral dissertation hours.

Total Credit Hours Required:
72 Credit hours minimum beyond the bachelor's degree
42 Credit hours minimum beyond the master's degree

Unless a completed (signed) Program of Study itemizing the study plan is approved prior to the end of the first semester of studies, the Graduate Director of the MAE Department may choose not to accept any part of the coursework (including independent studies and/or directed research) taken by the student on a Program of Study subsequently submitted by the student.

Admission to doctoral status requires that the student (1) pass a PhD Qualifying Examination, (2) establish a Doctoral Advisory Committee and (3) submit a departmentally approved Program of Study. These steps are normally completed within the first year of study beyond the master's degree.
Additionally, all students pursuing the doctoral program must enroll in the following course:

EML 5090 Mechanical and Aerospace Seminar (0 credit hours)
Students must register for the seminar course a minimum of four times during their graduate career in the doctoral program. Students must complete the EML 5090 seminar course with a satisfactory (S) grade twice prior to taking the candidacy exam and twice after completing the candidacy exam. If the student does not complete the course with a satisfactory grade, the student will be asked to repeat the course to meet program requirements.

Elective courses – 57 Credit hours
- May include up to a total of 12 credit hours combined of Directed (XXX 6918) or Doctoral Research (XXX 7919) and/or of Independent Study (XXX 6908)
- At least 45 credit hours must be formal coursework, exclusive of Independent Study, Doctoral Research and/or Directed Research for those without a master's degree
- At least 15 credit hours must be formal coursework, exclusive of Independent Study, Doctoral Research and/or Directed Research for those with a master's degree

Suggested elective courses include

- EAS 5123: Intermediate Aerodynamics (3 credit hours)
- EAS 5211: Aeroelasticity (3 credit hours)
- EAS 5302: Directed Energy Conversion (3 credit hours)
- EAS 5315: Rocket Propulsion (3 credit hours)
- EAS 5407: Mechatronic Systems (3 credit hours)
- EAS 5535: Engineering Design for Aerospace Vehicles (3 credit hours)
- EAS 6138: Advanced Gas Dynamics (3 credit hours)
- EAS 6185: Turbulent Flow (3 credit hours)
- EAS 6403: Spacecraft Attitude Determination and Control System (3 credit hours)
- EAS 6405: Advanced Flight Dynamics (3 credit hours)
- EAS 6415: Guidance, Navigation and Control (3 credit hours)
- EAS 6507: Topics of Astrodynamics (3 credit hours)
- EAS 6807: Aerospace Measurements Instrumentation (3 credit hours)
- EAS 6808: Space Environment and Payload Instrumentation (3 credit hours)
- EAS 6XXX: Multidisciplinary Optimization under Uncertainty (3 credit hours)
- EAS 6XXX: Estimation of Dynamical Systems (3 credit hours)
- EAS 6XXX: Non-Destructive Evaluation of Structures (3 credit hours)
- EAS 6XXX: Structural & Dynamic Stability (3 credit hours)

- EML 5060: Mathematical Methods in Mechanical, Materials and Aerospace Engineering (3 credit hours)
- EML 5066: Computational Methods in MAE (3 credit hours)
- EML 5105: Gas Kinetics and Statistical Thermodynamics (3 credit hours)
- EML 5152: Intermediate Heat Transfer (3 credit hours)
- EML 5237: Intermediate Mechanics of Materials (3 credit hours)
- EML 5271: Intermediate Dynamics (3 credit hours)

- EML 5311: System Control (3 credit hours)
- EML 5402: Turbomachinery (3 credit hours)
- EML 5456: Turbines for Sustainable Power (3 credit hours)
- EML 5532: CAD/CAM (3 credit hours)
- EML 5545: Smart and Adaptive Structures (3 credit hours)
- EML 5546: Engineering Design with Composite Materials (3 credit hours)
- EML 5572: Probabilistic Methods in Mechanical Design (3 credit hours)
- EML 5713: Fluid Mechanics (3 credit hours)
- EML 6067: Finite Elements I (3 credit hours)
- EML 6068: Finite Elements II (3 credit hours)
- EML 6104: Classical Thermodynamics (3 credit hours)
- EML 6131: Combustion Phenomena (3 credit hours)
- EML 6154: Conduction Heat Transfer (3 credit hours)
- EML 6155: Convective Heat Transfer (3 credit hours)
- EML 6157: Radiation Heat Transfer (3 credit hours)
- EML 6211: Continuum Mechanics (3 credit hours)
- EML 6223: Advanced Vibrational Systems (3 credit hours)
- EML 6233: Fundamentals of Fatigue Analysis (3 credit hours)
- EML 6547: Engineering Fracture Mechanics in Design (3 credit hours)
- EML 6712: Viscous Flow (3 credit hours)
- EML 6725: Computational Fluid Dynamics (3 credit hours)

- EEL 5432: Satellite Remote Sensing (3 credit hours)
- EEE 5542: Random Processes I (3 credit hours)
- EEL 5881: Software Engineering I (3 credit hours)
- EEL 6616: Adaptive Control (3 credit hours)
- EEL 6621: Nonlinear Control Systems (3 credit hours)

Students are also permitted to take courses from other specialization areas. Students may take courses from Mechanical and Aerospace Engineering and other departments, including but not limited to Industrial, Civil and/or Electrical Engineering; Computer Science; Statistics; Mathematics and Physics, with the consent of the academic adviser.

Dissertation – 15 Credit hours
EAS/EML 7980 Doctoral Dissertation (15 credit hours minimum)

Examinations
In addition to the Qualifying Examination discussed above, the student must pass a Candidacy Examination and a Dissertation Defense Examination. The Candidacy Examination is taken near the end of the course work and consists of a written and oral presentation of a research proposal. The MAE Department typically requires a PhD student to submit his/her Candidacy Exam in the academic semester immediately following his/her successful passing of the PhD Qualifying Exam. The Dissertation Defense Examination is an oral examination taken in defense of the written

dissertation. The College of Engineering and Computer Science requires that all Dissertation Defense Examination announcements are approved by the student's advisor and posted on the College's website and on the Events Calendar of the College of Graduate Studies website at least two weeks prior to the defense date.

Dissertation Committee

The Doctoral Advisory Committee must consist of a minimum of four members: two must be graduate faculty members from within the MAE Department and one must be at large from outside the MAE Department and will serve as the external committee member. The committee Chair must be a member of the graduate faculty approved to direct dissertations. Joint faculty members may serve as members from within the MAE Department as well as committee Chairs. Adjunct faculty and off-campus experts, if approved graduate faculty scholars, may serve as the external person in the committee. The UCF College of Graduate Studies reserves the right to review appointments to advisory committees, place a representative on any advisory committee or appoint a co-adviser.

All committee members vote on acceptance or rejection of the dissertation proposal and the final dissertation. The dissertation proposal and final dissertation must be approved by a majority of the Doctoral Advisory Committee.

Admission to Candidacy

The following are required to be admitted to candidacy and enroll in dissertation hours (enrollment in dissertation hours begins the semester following the completion of these requirements). Evidence of meeting these requirements must be received by the College of Graduate Studies by the day before the first day of classes for the semester in which a student wishes to enroll in dissertation hours.

- Completion of all course work, except for dissertation hours.
- Successful completion of the Candidacy Examination.
- Successful defense of the written dissertation proposal.
- Formation of the Doctoral Advisory Committee, consisting of approved Graduate Faculty and Graduate Faculty Scholars.
- Submission of an approved Program of Study.

Equipment Fee

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

MAE Department Graduate Seminar Requirement

The MAE Graduate Seminar is a zero (0) credit hour (S/U) course that is offered each fall and spring academic semesters. Prior to graduation, all MAE graduate students who are pursuing a PhD dissertation are required to register, participate, and receive a satisfactory (S) for four (4) semesters of MAE Graduate seminar, with at least two of these taken prior to candidacy.

Independent Learning

The Independent Learning Requirement is met by successful completion of the student's Candidacy and Dissertation Defense Examinations.

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.

The College of Engineering and Computer Science strongly encourages prospective applicants to request a free pre-screening (www.cecs.ucf.edu/prescreen) of their qualifications prior to submitting an online application for graduate admission. However, a pre-screening is not required; rather, it is offered as a courtesy to all prospective applicants before they commit to submitting a complete online application and paying an application processing fee.

Admissions decisions are made on the basis of a complete online application only, and not on the basis of any pre-screening. Prospective applicants who are encouraged to apply to their intended graduate program based on the information provided for their pre-screening are not assured of admission or financial assistance when they submit a complete online application. Although it is possible, it is not likely, that prospective applicants who are discouraged from formally applying to a graduate program at the pre-screening stage will be admitted if they elect to submit a complete online application anyway.

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 GRE score taken within the last five years.
Bachelor's or Master's degree in Aerospace or Mechanical Engineering or a closely related discipline.
Résumé.
Statement about educational, research, and professional career objectives.
Three letters of recommendation.

Faculty members may choose to conduct face-to-face or telephone interviews before accepting an applicant into their research program.
Additional courses may be required to correct deficiencies. Students should contact the graduate program director for more information.

Application Deadlines

Aerospace Engineering 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.

Aerospace Engineering PhD program Participating Faculty

Seetha Raghavan, Associate Professor: PhD in Aeronautics and Astronautics, 2008, Purdue University. Research interests: Mechanics of aerospace structures and materials; Piezo-spectroscopy; Thermal barrier coatings; Spectral analysis methods using genetic algorithms; In situ strain measurements using synchrotron radiation; Non-destructive evaluation.

Yunjun Xu, Associate Professor: PhD in Aerospace Engineering, 2003, University of Florida. Research interests: Bio-inspired control for single or cooperative vehicles; Sensor rich based control; Complex system modeling; Robotics/UAV/MAV/CubeSat design, guidance and navication; Filtering, estimation, Stochastic control.

Kuo Chi "Kurt" Lin, Associate Professor: PhD in Aerospace Engineering, 1990, University of Michigan. Research interests: Real-time simulation; Multi-body dynamics; Numerical integration algorithm; Modeling of dynamic systems; Distributed interactive simulation; Vibration modal analysis; Genetic algorithm; Cubesat; Renewable energy.

Jeffrey Kauffman, Assistant Professor: PhD in Aerospace Engineering, 2012, The Pennsylvania State University. Research interests: Structural dynamics; Adaptive structures; Multi-stable systems; Nonlinear dynamics; Vibration damping and control; Turbomachinery and rotordynamics.

Kawai Kwok, Assistant Professor: PhD in Aeronautics, 2013, California Institute of Technology. Research interests: Mechanics of structures and materials, deployable structures, flexible composites, high-temperature ceramics, instability and micromechanics modeling.

Tarek Elgohary, Assistant Professor: PhD in Aerospace Engineering, Texas A&M University. Research interests: Astrodynamics, Optimal Control, Computational Methods, Nonlinear Dynamics and Uncertainty Quantification.

Samik Bhattarcharya, Assistant Professor: PhD in Aerospace Engineering, 2013, The Ohio State University. Research interests: Experimental fluid mechanics and aerodynamics, Flow control, Unsteady fluid mechanics, Fluid-structure interactions.

Felipe Viana, Assistant Professor: PhD in Aerospace Engineering, 2011, University of Florida. Research interests; Multi-disciplinary optimization and uncertainty.

Ranganathan Kumar, Professor: PhD in Theoretical and Applied Mechanics, 1983, University of Illinois Urbana-Champaign, Multiphase flow and heat transfer; Droplet atomization and vaporization; Droplet and spray drying; Microfluidics and nanofluids; Laser-based measurements; Lattice Boltzmann methods; Molecular dynamics simulation; CFD.

Jihua Jan Gou, Professor: PhD in Materials Engineering, 1999, Shanghai Jiao Tong University. PhD in Industrial and Manufacturing Engineering, 2002, Florida State University. Research interests: Composite materials manufacturing; Mechanics of composite materials; Durability of composite materials; Nanocomposite materials; Advanced materials processing; Solid mechanics; Design and manufacturing.

Jayanta Kapat, Professor: Sc.D. in Mechanical Eng., Massachusetts Institute of Technology, Heat transfer and related sensors with application to MEMS; Aerodynamics and heat transfer for gas turbines and other turbomachineries; Transition and turbulence and associated effects on droplet evaporation and transport augmentation; Flow and transport in different material processing techniques.

Ali Gordon, Associate Professor: PhD in Mechanical Engineering, 2006, Georgia Institute of Technology. Research interests: Creep and thermomechanical fatigue deformation and crack growth; Coupled environment-stress interactions; Constitutive modeling of cast and wrought alloys; Life prediction methodologies.

Kareem Ahmed, Assistant Professor : PhD in Mechanical Engineering, 2009, University of Buffalo. Research interests: propulsion and energy focusing on multi-phase turbulent reacting and non-reacting flows, turbulent combustion, combustion dynamics, static flame stability, ignition, supersonic compressible flows, fluid mechanics, flow control, flame-fluidic interaction, hydrodynamic instabilities, experimental methods and advance laser and optical diagnostics.

Subith Vasu, Assistant Professor: PhD in Mechanical Engineering, 2010, Stanford University. Research interests: Supercritical CO_2 power cycles for power generation and naval propulsion. Gas Turbine combustion, ignition, and chemical kinetics. Reaction conversion processes in combustion, atmosphere, and propulsion systems using shock tube and spectroscopic diagnostics. Optical diagnostics and sensors development; Optical diagnostics applications in energy, propulsion, and environmental science; Fundamental & applied Laser spectroscopy. Fuel chemical kinetics experiments and modeling; Computational modeling of reactive flows.

Ranajay Ghosh, Assistant Professor: PhD in Mechanical & Aerospace Engineering, 2010, Cornell University. Research interests: Mechanics of solids, biomimetic materials, computational mechanics, multiscale and multiphysics modeling.

Memo

To: Dr. Seetha Raghavan, Associate Professor and Aerospace Director, Mechanical & Aerospace Engineering

Dr. Jeffrey Kauffman, Assistant Professor, Mechanical & Aerospace Engineering

Dr. Yoav Peles, Professor and Chair, Mechanical and Aerospace Engineering

Dr. Michael Georgiopoulos, Dean, College of Engineering & Computer Science

Ms. Ying Zhang, Dept. Head, Acquisitions & Collections

Ms. Selma Jaskowski, Assoc. Director, Technology Services & Resource Management

Mr. Barry Baker, Director of Libraries

Dr. John Weishampel, Senior Associate Dean, College of Graduate Studies

From: Buenaventura "Ven" Basco, Associate Librarian, Research and Information Services

Subject: Library Evaluation of the Proposal to add Aerospace Engineering PhD. in the Mechanical & Aerospace Engineering Department

Date: January 12, 2018

When reviewing library support for the new Aerospace Engineering PhD. degree, the following institutions were selected for comparison:

- North Carolina State University
- Ohio State University
- University of Florida

Summary and Projected Costs for New Library Resources:

Each of these institutions has a PhD. program in Aerospace Engineering. In comparing the library collections at the selected aspiring programs, UCF Libraries needs to upgrade our subscription to a few high impact journals, subscribe to the meeting papers published by the American Institute of Aeronautics and Astronautics (AIAA), and as well add recently published monographs to fill the gaps in the collection. The total cost for library materials for the first year to begin the program is **$15,000** plus inflation for subsequent years. After the five year period, costs will continue so money will need to be added to the Library budget to cover those expenses, especially the subscriptions to the journals and meeting papers.

In the unfortunate event library budget shortfalls occur, some existing resource subscriptions may be cut or scaled back.

Projected costs needed to acquire library materials to support the new PhD in Aerospace Engineering

	2018	2019	2020	2021	2022	2023
AIAA Journal Package Archive (Access Only)	$3,250	3,413	3,584	3,763	3,951	4,149

1

AIAA Meeting Papers – Current Year Only (Only Available as Permanent Purchase)	$10,250	10, 552	11,080	11,634	12,215	12,826
Books (print and online)	$1,500	1,050	1,100	1,157	1,215	1,275
Total	$15,000	15,015	15,764	16,554	17,381	18,250

Databases

Database Name	UCF	UF	Ohio State	NC State
Mechanical and Transportation Engineering Abstract (ProQuest)	x	x		
Compendex (Engineering Index)	x	x	x	x
IEEE Xplore	x	x	x	x
INSPEC	x	x		x
Advanced Technologies & Aerospace Database (ProQuest)	x	x		x
Science Direct	x	x		x
SCOPUS			x	
Web of Science	x	x	x	x
NASA Technical Reports Server (NTRS) FREE	x	x	x	x
Applied Science & Technology Full Text	x	x		
Engineered Materials Abstracts (ProQuest)	x	x	x	x
Journal Citation Index (JCR)	x	x	x	x
NTIS (Free public access to a very small portion of the database)	public access	x (ProQuest)	public access	public access
ProQuest Dissertations and Thesis Full-Text	x	x	x	x
SPIE Digital Library	x		x	x

Databases: The UCF Libraries journal list compares favorably with the chosen institutions. **We have the databases needed to support Aerospace Engineering.**

Key Journals

Top 25 Electronic Journals in Aerospace Engineering - as determined by Thomson Reuters Journal Impact Factor 2015 Rankings	UCF	UF	Ohio State	NC State
Progress in Aerospace Sciences	**1995-**	1961 –	1961-	1970-
Aerospace Science and Technology (V. 1, 1997)	1997-	1997-	1997-	1997-
IEEE Transactions on Aerospace and Electronic Systems	1965-	1965-	1988-	1965-

Journal of Guidance, Control, and Dynamics (AIAA)	**2004-**	1982-	1978-	2015-
AIAA Journal	**2014-**	1963 –	1963-	1963-
Journal of Propulsion and Power (AIAA)	**2014-**	1985-	1985-	2008-
ACTA Astronautica (V.1, 1974)	**1995-**	1974-	1974-	1974-
Navigation- Journal of the Institute of Navigation (Wiley, V.43, 1996)	1996-	1997-		2012-2016
Chinese Journal of Aeronautics (Science Direct, V. 15, 2002)	2002-	2002-	2002-	
International Journal of Aerospace Engineering (ProQuest SciTech Collection, 2009-)	2009-	2009-	2009-	2009-
Journal of the American Helicopter Society (EBSCO ASP 2011 selective full text)	2011-	2011-	2011-	2011-
Microgravity Science and Technology (V.31, 2001)	2001-	2001-	2001-	2001-
Journal of Aerospace Engineering (V.1, 1988)	1988-	1988-	1988-	1988-
Journal of Spacecraft and Rockets (AIAA)	**2014-**	1964-	1964-	2013-
Journal of Aircraft (AIAA)	**2014-**	1964-	1961-	2008-
International Journal of Satellite Communications and Networking (V.1, 1983)	**1996-**	1996-	1983 v.1 -	1983-
Proceedings of the Institution of Mechanical Engineers Part G – Journal of Aerospace Engineering (Sage 1989-)	1994 - 2010	1994- 2010	1989-	1994-2010
IEEE Aerospace and Electronic Systems Magazine (1986, v.1)	1986-	1986-	1988-	1986-
Cosmic Research (V.38, 2000)	2000-	2000-	2000-	2003-
ESA Bulletin European Space Agency 8/1/94 – limited freely accessible science journal)				
Aeronautical Journal (Cambridge University Press v.108, 2004)	2004-	2000-	2004-	2004-
Aircraft Engineering and Aerospace Technology (v.69, 1997)	1997-	1997- 1 year	1997-	1997-
Journal of the Astronautical Sciences				
International Journal of Aeronautical and Space Sciences				
International Journal of Aeroacoustics (V.1, 2002)	2002-	2002-	2007-	2002-

· **Journals:** By comparing the title by title list, UCF Libraries journal list compares favorably with the chosen institutions. However, UCF lacks the full access to the archives of the items highlighted in bold.

Those were the same journals that the faculty members in the Aerospace Department have requested in the past.

In order to support the new PhD program in Aerospace Engineering, access to the full run of the archive to the selected journals are needed. The American Institute of Aeronautics and Astronautics (AIAA) e-Journal Archive annual subscription (1963-2017) is **$3,250.00** and as long as UCF Library keeps the subscription for the current year. If major budget cuts occur, some databases and/or journals on this list may be discontinued.

Another important set of publications by AIAA that the library must have either permanently or as a subscription are AIAA meeting papers. They are separate from the journal subscription nor part of the e-book collection. The 2017 AIAA Meeting ePapers' current purchase subscription is **$10,250.00** and will be available in perpetuity. Please note that this will **not** include online access to the AIAA Meeting ePaper Archive (1963-2017). A separate annual subscription of $4,600 is required and is not included in the proposal.

Books – Combined Print and E-Books *(by the Subject headings, keywords provided or LC ranges)*

Subject Heading	UCF	UF	Ohio State	NC State
Aeronautics	1346	808	3224	4518
Aerospace Engineering	170	203	122	228
Astronautic	839	359	1307	1894
Aerospace Systems	14	79	44	65
Space Flight	387	207	607	830
Flight Control	47	52	198	165
Guidance Systems (Flight)	30	11	95	99
Aerodynamics	375	357	1038	1343
Aircraft Design	31	21	77	67
Spacecraft Design	6	6	34	10
Propulsion Systems	57	13	85	130
Guidance Systems (Flight)	30	11	95	99
Multidisciplinary Design Optimization	12	14	14	20
Aerodynamics, Hypersonic	38	24	60	91
Aerodynamics, Supersonic	26	8	55	106
Aerodynamics, Transonic	15	10	53	71
Subsonic Flow	3	3	10	0
Total books	**3426**	**2186**	**7118**	**9736**

Books: The analysis of the book collection shows that UCF Libraries does not compare favorably well with Ohio State and NC State holdings when compared. We will need to add some books in order to support the new PhD in Aerospace Engineering and to add new publications in the next 5 years. The library will need **$1,500** initially to purchase books/e-books in Aerospace Engineering to catch up and additional **$1,000** each year for the remaining four years.

Graduate 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 Engineering and Computer Science**

Proposed Effective Term/Year: **Summer 2018**

Unit(s) Housing Program: **Industrial Engineering and Management Systems (IEMS)**

Name of program, track and/or certificate: **Engineering Management MSEM**

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

If the revision applies to multiple tracks, please list them here:
None

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

> The current program is being updated based on continuous improvement efforts in all our master's programs in the department. In an effort to offer only one capstone course for our MS, MSIE, and MSEM, we included EIN 6182 as one of the required courses for this program and added EIN 6950: Capstone course in Industrial and Systems Engineering as the capstone course to achieve such consistency.
>
> The revision of the program will also achieve desired benefits based on feedback from UCF industrial community.

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.**

> Required Courses—9 Credit Hours
> EIN 5140 Project Engineering (3 credit hours)
> ESI 6551 Systems Engineering (3 credit hours)
> EIN 6357 Advanced Engineering Economics Analysis (3 credit hours)
>
> Concentration Courses (9 Credit Hours)
> EIN 5108 The Environment of Technical Organizations (3 credit hours)
> EIN 6370 Innovation in Engineering Design (3 credit hours)
> EIN 6182 Engineering Management (3 credit hours)
>
> Capstone Required Course - - (3 credit hours)
> EIN 6950 Capstone Course in Industrial and Systems Engineering (3 credit hours)

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.

If you are ONLY making a name change, skip the "Impact on Current Students" section.

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?

Current students will have the option of completing their program of study as planned or moving to the new curriculum. Courses will be offered to accommodate those students as needed. We do not anticipate ant any issues in this regards. If needed, students can work with the graduate coordinator for course substitutions.

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					

Signatures

Recommend Approval *(all approval levels must be signed)*

Graduate Faculty Program Coordinator:

Print: Ahmad Elshennawy   Signature: Ahmad K. Elshennawy *[Digitally signed by Ahmad K. Elshennawy. DN: cn=Ahmad K. Elshennawy, o=University of Central Florida, ou=Industrial Engineering and Management Systems, email=ahmad.elshennawy@ucf.edu, c=US Date: 2018.01.29 09:52:08 -05'00']*   Date: _____

Department Chair / Director:

Print: Waldemar Karwowski   Signature: Waldemar Karwowski *[Digitally signed by Waldemar Karwowski. DN: cn=Waldemar Karwowski, o, ou, email=wkarwowski@gmail.com, c=US Date: 2018.01.30 09:45:39 -05'00']*   Date: _____

College Academic Standards:

Print: Mostafa Bassiouni   Signature: *M. Bas*   Date: 2/16/2018

College Dean:

Print: Michael Georgiopoulos   Signature: _____   Date: _____

Graduate Council:

Print: _____   Signature: _____   Date: _____

Vice President for Research and Dean of the College of Graduate Studies:

Print: _____   Signature: _____   Date: _____

Approval

Provost and Executive Vice President:

Print: _____   Signature: _____   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

Engineering Management MSEM

PROGRAM DESCRIPTION

The Master of Science in Engineering Management (MSEM) degree in Industrial Engineering focuses on effective decision-making in engineering and technological organizations.

The MSEM degree is offered on campus and can be taken entirely through the Florida Engineering Educational Delivery System (FEEDS), which provides video-streamed versions of classes over the internet.

The Professional Engineering Management (PEM) track is designated as a Professional Science Master's (PSM) degree.

Please note: This program may be completed online, although not all elective options or program prerequisites may be offered online. Newly admitted students choosing to complete this program exclusively via UCF online classes may enroll with a reduction in campus-based fees. See http://ucf.edu/online for more information.

International students (F or J visa) are required to enroll in a full-time course load of 9 credit hours during the fall and spring semesters. Only 3 of the 9 credit hours may be taken in a completely online format. For a detailed listing of enrollment requirements for international students, please visit www.international.ucf.edu. If you have questions, please consult International Affairs and Global Strategies at 407-823-2337.

UCF is not authorized to provide online courses or instruction to students in some states. Refer to State Restrictions for current information.

CURRICULUM

This program can be taken entirely through the Florida Engineering Educational Delivery System (FEEDS), which provides video-streamed versions of classes over the Internet.

The Engineering Management MSEM degree requires an undergraduate degree in Engineering or a closely related discipline. Students with undergraduate degrees outside of industrial engineering may be required to take additional prerequisites. An approved program of study must be developed in consultation with the graduate program director. The total number of hours is 30 credit hours.

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

Prerequisites

Mathematics through Calculus II (MAP 2312)

Required Courses—~~12~~ Credit Hours

- ~~ESI 5219 Engineering Statistics (3 credit hours)~~
- EIN 5140 Project Engineering (3 credit hours)
- ESI 6551 Systems Architecting (3 credit hours)
- EIN 6357 Advanced Engineering Economics Analysis (3 credit hours)

Concentration Courses (9 Credit Hours)

- EIN 5108 The Environment of Technical Organizations (3 credit hours)
- EIN 6370 Innovation in Engineering Design (3 credit hours)
- EIN 6182 Engineering Management (3 credit hours)

Capstone Required Course (3 credit hours): For Non-Thesis Option Only

- **EIN 6950 Capstone Course in Industrial and Systems Engineering (3 credit hours)**

Thesis Option—~~9~~12 Credit Hours

Thesis students must complete an indepedent research project and then write and successfully defend their thesis. Furthermore, an additional ~~3~~6 credit hours of electives are required beyond the ~~21~~18 credit hours of required courses described above.

- EIN 6971 Thesis (6 credit hours)
- Electives (~~3~~6 credit hours)

Nonthesis Option—9 Credit Hours

Nonthesis students must take 9 additional credit hours of electives beyond the 21 credit hours of required courses described above.

The nonthesis option requires a capstone course. The capstone course should be completed toward the end of the student's graduate plan of study. As part of the requirements of this courses, students will complete an independent capstone project on a topic relevant to the industrial and systems engineering field and approved by the instructor. Students are expected to use and leverage knowledge obtained in the program to complete the project. This course serves as the culminating experience for students and shows their engagement in independent learning.

Independent Learning

A research project serves as the independent learning experience for thesis students. Nonthesis students are required to complete the department's capstone course toward the end of their program.

~~Comprehensive Examination~~

~~Nonthesis students must successfully pass an oral comprehensive examination to fulfill degree requirements. The comprehensive examination for MSEM graduates is satisfied by successful~~

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completion of a capstone project and oral presentation as a requirement for passing EIN 6182 Engineering Management. Please see the program director for further details.

At least one-half of the credit hours of all courses in a master's program of study must be at the 6000 level or higher. Students on assistantships must take 9 credit hours per semester to satisfy the university's requirement for full-time status. Most students working full time take 6 credit hours per semester. At that rate, the program can be completed in 6 semesters or less. However, students with more time available can finish the program in 3 semesters.

Equipment Fee

Students in the Engineering Management MSEM program pay a $90 equipment fee each semester that they are enrolled. For part-time students, the equipment fee is $45 per semester.

Independent Learning

The Independent Learning Requirement is met by successful completion of the research studies required in individual courses, EIN 6182 Engineering Management, and the capstone project that requires that students integrate material from all the courses in their program.

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.

The College of Engineering and Computer Science strongly encourages prospective applicants to request a free pre-screening (www.cecs.ucf.edu/prescreen) of their qualifications prior to submitting an online application for graduate admission. However, a pre-screening is not required; rather, it is offered as a courtesy to all prospective applicants before they commit to submitting a complete online application and paying an application processing fee. Admissions decisions are made on the basis of a complete online application only, and not on the basis of any pre-screening. Prospective applicants who are encouraged to apply to their intended graduate program based on the information provided for their pre-screening are not assured of admission or financial assistance when they submit a complete online application. Although it is possible, it is not likely, that prospective applicants who are discouraged from formally applying to a graduate program at the pre-screening stage will be admitted if they elect to submit a complete online application anyway. Students with undergraduate degrees outside of industrial engineering may be required to take additional prerequisites.

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

- Résumé or Curriculum Vita

- Goal statement

    - The goal statement should discuss all relevant professional background and any previous research and/or teaching experience. The statement should explain the

motivation behind the pursuit of a Master's degree in Industrial Engineering. Future educational and career goals after the completion of the applicant's master study should be discussed.

- If the applicant is interested in completing a Master thesis, then the applicant must clearly describe the particular area of research interest. The applicant should identify at least one UCF faculty member who shares a similar research focus and is believed to be best suited to serve as a potential thesis advisor.

- The goal statement should between 500 and 1,000 words.

- Two letters of recommendation

    - The letters of recommendation should be from faculty members, university administrators and employers with a supervisory role of the applicant. The letters, which must be current to the application and must not be for another degree program, should address the educational and career goals of applicant. The letter writers should also know the applicant well enough to discuss the applicant's capacity to perform, excel and succeed in a graduate program. Letters for Master's thesis students must discuss the applicant's ability to perform graduate-level research.

- Applicants applying to this program who have attended a college/university outside the United States must provide a course-by-course credential evaluation with GPA calculation. Credential evaluations are accepted from World Education Services (WES) or Josef Silny and Associates, Inc. only.

DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT SYSTEMS

LIST OF FACULTY WHO WILL TEACH IN THE REVISED MSEM DEGREE

- Richard Biehl, Ph.D., Applied Management & Decision Sciences

- Ahmad Elshennawy, Ph.D. in Industrial Engineering

- John V. Farr, Ph.D. in Civil Engineering

- Ivan Garibay, Ph.D. in Computer Science

- Robert Hoekstra, Ph.D. in Industrial Engineering

- Waldemar Karwowski, Ph.D. in Industrial Engineering

- Heather Keathley, Ph.D. in Industrial Engineering

- Timothy Kotnour, Ph.D. in Industrial Engineering

- Mansooreh Mollaghasemi, Ph.D. in Industrial Engineering

- Thomas O'Neal, Ph.D. in Industrial Engineering

- Michael Proctor, Ph.D. in Industrial Engineering

- Luis Rabelo, Ph.D. in Industrial Engineering

- Adan E. Vela, Ph.D. in Mechanical Engineering

- Qipeng Phil Zheng, Ph.D. in Industrial Engineering

Graduate 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: CAH

Proposed Effective Term/Year: 2019-20   Summer 2019

Unit(s) Housing Program: English

Name of program, track and/or certificate: English MA: Technical Communication Track

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.**

ENC 5337 is a course that is shared between the Department of English and the Department of Writing and Rhetoric, each of which takes a different approach when teaching it. The English faculty believe that substituting a class more centrally related to Technical Communication will benefit our students. We presume that allowing DWR to take ownership of ENC 5337 will benefit their students.

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.**

• Remove ENC 5337 from the Required Courses list of the English-Technical Communication MA.
• Replace ENC 5337 with the choice of either ENC 6338 or LIT 6435.

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.

If you are ONLY making a name change, skip the "Impact on Current Students" section.

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 who have already taken ENC 5337 may remain in their current catalog year and count the class as part of their required core. Students who have not already taken ENC 5337 will abide by the curriculum of their catalog year.

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 (Print) _James Campbell_ (Signature) _[signature]_ Date _01/16/18_
Program Coordinator

Department Chair (Print) _Trey Philpotts_ (Signature) _[signature]_ Date _1/19/18_
/Director

College Academic (Print) _Lynn Hepner_ (Signature) _[signature]_ Date _2/13/18_
Standards

College Dean (Print) _Jeffrey Moore_ (Signature) _[signature]_ Date _2/13/18_

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

Vice President for Research and Dean of the College of Graduate Studies

(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

TRACK DESCRIPTION

The Technical Communication track in the Master of Arts in English program is completely online and provides students with theoretical and applied skills in such areas as technical writing, visual design, usability, ethics, stylistics, computer documentation, international communication, and the rhetoric of science.

Show Program Description⌄

CURRICULUM

Each student must complete at least 33 credit hours of coursework including 15 credit hours of required courses and 15 credit hours of elective courses. Near the end of the degree program, each candidate will write a comprehensive examination and complete a thesis option, a nonthesis option with a research project approved by the faculty, or a nonthesis option consisting of an additional 6000-level three-credit-hour Technical Communication course taught by the Department of English.

Total Credit Hours Required:

33 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—15 Credit Hours

- ENC 6297 Production and Publication Methods (3 credit hours)
- ~~ENC 5337 Rhetorical Theory (3 credit hours)~~
- ENC 6217 Technical Editing (3 credit hours)
- ENC 6261 Technical Writing: Theory and Practice (3 credit hours)
- ENG 5009 Methods of Bibliography and Research (3 credit hours)
- Choose one of the following:
    - ENC 6338 The Rhetorics of Public Debate (3 credit hours)
    - LIT 6435 Rhetoric of Science (3 credit hours)

Elective Courses—15 Credit Hours

Restricted—9 Credit Hours

- ENC 6257 Visual Technical Communication (3 credit hours)
- ENC 6306 Persuasive Writing (3 credit hours)
- ENC 6247 Proposal Writing (3 credit hours)
- ENC 6292 Project Management for Technical Writers (3 credit hours)
- ENC 6296 Writing and Designing Online Help Systems (3 credit hours)
- ENC 6338 The Rhetorics of Public Debate (3 credit hours)
- ENC 6425 Hypertext Theory and Design (3 credit hours)
- ENC 6335 Rhetorical Traditions (3 credit hours)
- LIN 5675 English Grammar and Usage (3 credit hours)

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- LIT 6435 Rhetoric of Science (3 credit hours)

Unrestricted—6 Credit Hours

Students in consultation with the graduate adviser will choose two graduate-level English courses or approved courses from outside the department.

Thesis Option—3 Credit Hours

Students complete a formal thesis written in consultation with an advisory committee and will meet both departmental and university requirements for the thesis.

- ENC 6971 Thesis (3 credit hours)

Nonthesis Options—3 Credit Hours

Students will enroll in directed research and complete a research project approved by an advisory committee. This project will be on a topic in technical communication and in a format other than that of a traditional thesis.

- ENC 6918 Directed Research (3 credit hours)

Or, students will enroll in an additional 6000-level course in technical communication taught by the Department of English.

Comprehensive Examination

The comprehensive examination is a written exam based on four of the core courses (excluding ENG 5009).

Independent Learning

Both the thesis and special project options of the Master's in English, Technical Communication Track require students to conduct original research and to produce a final paper detailing the subject, purpose, scope, methodology, and conclusions of the study, thus, providing students the opportunity to engage in independent learning.

Application Requirements

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

In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Two letters of recommendation from faculty members or others familiar with applicant's academic potential.
- One year of a foreign language at the university level (may be taken while in graduate residence).
- A one to two page goal statement addressing the applicant's reasons for pursuing graduate study in English.
- A professional writing sample of approximately ten pages (or an equivalent amount of web-based work), with a cover memo of no more than one page that explains why you chose to submit this particular sample.
- A computer-based score of 233 (or 91 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.
- A résumé is required for applicants seeking assistantship positions.

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

Technical Communication	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Mar 30	Nov 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

English MA – Technical Communication track changes

List of Participating Faculty:

J. D. Applen, PhD. Professor of English
Madelyn Flammia, PhD. Professor of English
Sonia Stephens, PhD. Assistant Professor of English

Subject: Re: Proposed Curriculum Change to the Tech Comm MA

Date: Wednesday, November 29, 2017 at 7:45:30 PM Eastern Standard Time

From: Martha Brenckle

To: James Campbell, Stephanie Vie, Deborah Weaver

CC: Ethan Watford, Stephanie Livigni

James,
This will not be a problem for us. Good luck with your revisions.

Martha

From: James Campbell
Sent: Tuesday, November 21, 2017 11:59:46 AM
To: Martha Brenckle
Cc: Ethan Watford
Subject: Proposed Curriculum Change to the Tech Comm MA

Martha,

The Tech Comm faculty have asked me to prepare a catalog curriculum revision that removes ENC 5337 (Rhetorical Theory) from the required classes for the Technical Communication MA and substitutes either ENC 6338 (Rhetorics of Public Debate) or LIT 6435 (Rhetoric of Science). I've asked for the change to take place with the 2019-20 grad catalog. Essentially this means that as of academic 2019-20, English would no longer schedule ENC 5337 and it would become DWR's class to schedule as you see fit.

Since your department is affected by this change, I'm asking your written OK of the revision.

I'm attaching the form and supporting materials. Please let me know if you have any questions.

Hope all is going well.

Thanks,
james
--
James Campbell
Associate Professor
Director of Graduate Studies
University of Central Florida
Orlando FL 32816-1346
http://english.cah.ucf.edu/staff.php?id=177

College of Graduate Studies

Graduate 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 / Political Science

Proposed Effective Term/Year: 2018-2019   Summer 2018

Unit(s) Housing Program: Department of Political Science

Name of program, track and/or certificate: MA in Political 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.**

> The revision clarifies which courses can be used as electives for the MA degree. At present, the catalog does not provide an guidance on elective courses. The text reflects existing CGS and Political Science policy.

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.**

> • States that all 5000 or 6000 level political science courses not otherwise used to fulfill requirements can be used to meet the elective requirement
> • Clarifies that all other graduate courses need to be approved by the program before they can be used to meet the elective requirement
> • Identifies limits on the use of non-departmental courses, independent study, and internship credit to meet the electives requirement.

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.

If you are ONLY making a name change, skip the "Impact on Current Students" section.

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?

Changes to catalog text reflect current practice, so impacts will be negligible.

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support assistantships, fellowships, and tuition remission.)
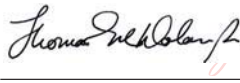
	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signatures

Recommend Approval *(all approval levels must be signed)*

Graduate Faculty Program Coordinator:

Print: Thomas M. Dolan   **Signature:** *Thomas McDolan Jr.*

Digitally signed by tdolan
DN: dc=edu, dc=ucf, dc=net, ou=People,
cn=tdolan, email=Thomas.Dolan@ucf.edu
Date: 2017.11.17 14:59:05 -05'00'

Date: _____
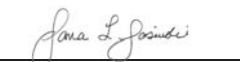
Department Chair / Director:

Print: Kerstin Hamann   **Signature:** khamann

Digitally signed by khamann
DN: dc=edu, dc=ucf, dc=net, ou=People,
cn=khamann,
email=Kerstin.Hamann@ucf.edu
Date: 2018.01.26 14:26:27 -05'00'

Date: _____

College Academic Standards:

Print: Jana L. Jasinski   **Signature:** *Jana L. Jasinski*   **Date:** _____

College Dean:

Print: Michael D Johnson   **Signature:** *Michl D Johnson*

Digitally signed by Michael D. Johnson
DN: cn=Michael D. Johnson, o=University of
Central Florida, ou=College of Sciences,
email=Michael.Johnson@ucf.edu, c=US
Date: 2018.03.05 12:45:51 -05'00'

Date: _____

Graduate Council:

Print: _____   **Signature:** _____   **Date:** _____

Vice President for Research and Dean of the College of Graduate Studies:

Print: _____   **Signature:** _____   **Date:** _____

Approval

Provost and Executive Vice President:

Print: _____   **Signature:** _____   **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

Memorandum

To: University Policy & Curriculum Committee
From: Tom Dolan, Graduate Program Coordinator, Political Science
Date: 18 January 2018
Re: Minor, clarification of rules regarding electives for MA program

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Name of Program: MA in Political Science

1. **Proposed Implementation (catalog year): 2018-2019**

2. **Short, overall rationale for the change(s):**

By oversight, the catalog did not include a discussion of which courses would be appropriate electives for students in our MA program.

3. **Itemized description of each change:**

Describes which courses are can always be used to fulfill elective requirements, which courses need program coordinator approval to fulfill requirements, and limits on using independent study, extra-departmental, and internship credit to fulfill the requirement.

Changes to catalog text reflect existing graduate school and program policies.

Attachments:
Catalog copy with tracked changes
Graduate Program Recommendation Form (Revisions)

PROGRAM DESCRIPTION

The Master of Arts in Political Science program prepares students to enter positions in government and the private sector in which the ability to comprehend, influence, and respond to government policy is critical and prepares interested students for pursuit of a PhD degree in Political Science or International Relations at other institutions.

Show Program Description⌄

CURRICULUM

A Program of Study in the Master of Arts in Political Science consists of the following course work. Students have the option of completing a thesis with 27 hours of coursework or choosing the non-thesis option with 33 hours of coursework.

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

Required Core Courses—12 Credit Hours
- POS 6736 Conduct of Political Inquiry (3 credit hours)
- POS 6746 Quantitative Methods in Political Research (3 credit hours)

Choose two of the following courses.
- POS 6045 Seminar in American Politics (3 credit hours)
- INR 6007 Seminar in International Politics (3 credit hours)
- CPO 6091 Seminar in Comparative Politics (3 credit hours)
- POT 6007 Seminar in Political Theory (3 credit hours)

Elective Courses—15 Credit Hours
- [Listing determined by catalog changes]

Students will complete 15 hours of coursework at the 5000 or 6000 level. All 5000 or 6000 level courses offered by the political science department can be used to meet this requirement, with the exception of those courses used to complete core course requirements. Up to 6 credit hours of 5000 and 6000 level courses coursework o from other departments may also be used as electives with prior approval of the Political Science graduate program coordinator. Students may use up to 6 hours of independent study and up to 6 hours of internship credit for the elective credits requirement, but no more than 6 hours total can be from coursework outside the department, independent study, or internship credit.

Thesis Option—6 Credit Hours

All MA students are automatically placed in the non-thesis option. Students wishing to write a thesis must get approval to do so.
- POS 6971 Thesis (6 credit hours)

After completion of the required course work and passing of comprehensive exams, the student must have a thesis advisory committee approved by the department and Graduate Studies. The thesis committee consists of a chair and two other faculty members from the Political Science department who are members of the Graduate Faculty. On the approval of the thesis chair and Graduate Program Director, one of the committee members (but not the chair) may come from outside the Political Science Department.

When a thesis topic has been selected, students, in conjunction with their thesis committee, will develop a thesis proposal. Copies of the proposal will be sent to members of their thesis committee and a proposal hearing scheduled in the first semester the student enrolls for thesis hours. All students must pass a proposal hearing as well as a final oral defense of their thesis.

Once enrolled in thesis hours, students should maintain continuous enrollment (3 credit hours) each semester up to and including the semester in which they defend the thesis.

In addition to department guidelines for the thesis, students should also become familiar with the university's requirements and deadlines for organizing and submitting the thesis.

Nonthesis Option—6 Credit Hours

The student must complete 6 additional credit hours of course electives in their respective areas. Thesis hours, if already taken, will not count for course credit for the 6 additional credit hours of coursework.

- Electives (6 credit hours)
- Complete an independent research project/paper

During the final semester of coursework, the student must have a non-thesis advisory committee approved by the department and Graduate Studies. The non-thesis committee consists of a chair and one other faculty member from the Political Science department. On the approval of the thesis chair and Graduate Program Director, one of the committee members (but not the chair) may come from outside the Political Science Department.

The student must complete an approved article-length independent research paper (minimum 8,000 words inclusive or 25 pages). The project/paper must have a component of original, independent research; it cannot be a literature review or research design only. The project/paper can be a product of a graduate research seminar and/or independent study paper. The student will present their research publicly at a department research colloquium or other public academic forum such as paper presentation at an academic conference. The project/paper must be evaluated by and receive formal confirmation of completion from the non-thesis advisory committee, the graduate coordinator, and the department chair.

If the paper is to be presented at a department research colloquium, the student is responsible for scheduling the presentation in consultation with the non-thesis advisory committee. They must register for the non-thesis option **at least six weeks prior** to the date of presentation.

Comprehensive Examination

All candidates for the MA degree must take a comprehensive written examination. The examination will be administered after satisfactory completion of the required course work, and must be taken prior to enrollment in thesis hours.

The exam is designed to demonstrate proficiency in research methods and will consist of two parts. Part I will involve the critique of an article from a political science journal. The article will be assigned by the department's Graduate Methods Committee in consultation with the student and where possible will be based on the student's substantive areas of interest. Part II will involve questions based on data analysis using either SPSS or STATA.

The examination will be offered once semester. Dates will be set by the department. Students must register to take the exam **at least six weeks prior** to its scheduled date.

Students not passing any part of the examination may take this part a second time within one calendar year on the dates that comprehensive exams are regularly scheduled. However, no student will be allowed to take the examination more than twice.

Equipment Fee

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

APPLICATION REQUIREMENTS

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

In addition to the general UCF graduate application requirements, applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken in the last five years.
- Three letters of recommendation, attesting to the applicant's ability to think analytically and to communicate clearly.
- A personal statement of 500 words identifying areas of research interest in political science, faculty with whom they would like to work, and describing the applicant's academic and professional experiences and future career goals.

Student wishing to enroll in graduate courses in political science must meet the department's requirements for graduate status (either regular or conditional graduate status) or must hold regular graduate status in another program at UCF. Students who have not been accepted into a degree-seeking program at UCF may not enroll in political science graduate courses.

Meeting minimum UCF or departmental admission criteria does not guarantee program admission. Final admission is based on evaluation of the applicant's abilities, past performance, recommendations, and the applicant's potential for completing the degree.

Application Deadlines

Political Science MA	*Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Jul 15	Dec 1	Apr 15
International Applicants	Jan 15	Jan 15	Jul 1	Nov 1
International Transfer Applicants	Jan 15	Mar 1	Sep 1	Dec 15
*Applicants who plan to enroll full time in a degree program and who wish to be considered for university fellowships or assistantships should apply by the Fall Priority date.				

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see the College of Graduate Studies Funding website, which describes

the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The Financial Information section of the Graduate Catalog is another key resource.

Fellowships

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

College of Graduate Studies

UCF

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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 Health and Public Affairs

Proposed Effective Term/Year: Fall 2018

Unit(s) Housing Program: School of Public Administration

Name of program, track and/or certificate: Nonprofit Management Certificate - Out of State Cohort

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

If the revision applies to multiple tracks, please list them here:
Just the one stated above

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

> This program provides specialized knowledge of resource development, strategic planning, program evaluation and volunteerism. The certificate supports those who currently work in, or are looking for advancement in, the nonprofit sector or in organizations that partner with the nonprofit sector
>
> It allows the program to refer more of our out-of-state students with low GPA's, who do not make it into the master's program, to this certificate program. This is helpful to them and motivates them to re-apply to the master's program.

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 curriculum will be the same as the Graduate Certificate in nonprofit Management offered to in state students.

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.

If you are ONLY making a name change, skip the "Impact on Current Students" section.

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?

> There will be no impact to existing students and no need for students to move from any other track.

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	-	-	-	-	-

Signatures

Recommend Approval *(all approval levels must be signed)*

Graduate Faculty Program Coordinator:

Print: __Dr. Mary Ann Feldheim__   Signature: _____ Date: 2/16/2018

Department Chair / Director:

Print: __Dr. Naim Kapucu__   Signature: _____ Date: 2/16/2018

College Academic Standards:

Print: _____   Signature: _____ Date: _____

College Dean:

Print: _____   Signature: _____ Date: _____

Graduate Council:

Print: _____   Signature: _____ Date: _____

Vice President for Research and Dean of the College of Graduate Studies:

Print: _____   Signature: _____ Date: _____

Approval

Provost and Executive Vice President:

Print: _____   Signature: _____ 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

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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: College of Education & Human Performance

Proposed Effective Term/Year: Fall, 2018

Unit(s) Housing Program: CFCS

Name of program, track and/or certificate: Counselor Education, Ph.D.

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

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

N/A

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

The counselor education track in the Education PhD program is fully accredited by the Council for the Accreditation of Counseling and Related (CACREP). Courses are designed based on CACREP standards as well as current fundamental issues and theories related to adult in higher education. The proposed changes are necessary due to updated CACREP 2016 standards as well as to better prepare counselor education students to be strong researchers, teachers, and supervisors. The changes reflected more rigorous options research/statistics courses and revised the current specialty courses to avoid duplication.

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.**

Reduce IDS 7500 to 3 credit hours instead of 6.
Add EDF 6401 Statistics for Educational Data to the curriculum
Change name of MHS 7311 to Professional Scholarship and Grant Writing
~~Delete MHS 7340 Advanced Career Development~~ *WJ Hazeb* 2/21/18
~~Delete MHS 6221 Individual Psychoeducational Testing II~~ *WJ Hazeb* 2/21/18
Add new course: Advanced Multicultural Counseling (NEW)

VP20 Rev. 08/09/2016 09:01 AM

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.

If you are ONLY making a name change, skip the "Impact on Current Students" section.

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?

Counselor Education PhD students who will be moving into year two, Fall 2018, will be allowed to take research electives in place of MHS 7340 (Fall 2018) and IDS 7500 (spring 2019).

If there are substantial revisions, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)
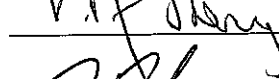
	Number of assistantship students	Source of funds	Number of fellowship students (specify fellowship)	Number of tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Signature Page

Recommend Approval (all approval levels must be signed)

Graduate Faculty (Print) Anna Shillingford-Butler (Signature) _____ Date 02/05/2018
Program Coordinator

Department Chair (Print) Glenn Lambie (Signature) _____ Date 2/5/2018
/Director

College Academic (Print) Valerie A Story (Signature) _____ Date 02/21/2018
Standards

College Dean (Print) JP Mendez (Signature) _____ Date 2/28/18

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

Vice President for Research and Dean of the College of Graduate Studies

(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

TRACK DESCRIPTION

The CACREP accredited Counselor Education track in the Education PhD program is designed specifically for those who wish to pursue careers as counselor educators at the university level or as supervisors in schools or agencies.

The program is fully accredited with the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). In addition to advanced curricular experiences in counseling, courses are designed to examine the fundamental issues and theory of teaching adults in higher education, research, supervision, consultation and to provide supervised experiences in each area. The UCF Community Counseling and Research Center serves as a hub for teaching and research in the program, includes facilities for group counseling and play therapy, and provides annual services to over 1,400 individuals, couples, and families in the central Florida community. The clinic also provides opportunities for doctoral students to practice their supervision skills.

Hide Program Description⌃

CURRICULUM

The Counselor Education track in the Education PhD program requires a minimum of 84 credit hours beyond the master's degree. Students must complete 2~~7~~4 credit hours of core courses, ~~30~~ 27 credit hours of specialization courses, 24 credit hours of dissertation, and 6 credit hours of internship. All students must also complete the candidacy examination.

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

Required Courses—54 Credit Hours

Core—27~~24~~ Credit Hours

- IDS 7501 Issues and Research in Education (3 credit hours)
- IDS 7500 Seminar in Educational Research (~~variable credit and repeatable,~~ 3~~6~~ credit hours)
- EDF 6401 Statistics for Educational Data (3 credit hours)
- EDF 7475 Qualitative Research in Education (3 credit hours)
- EDF 7403 Quantitative Foundations of Educational Research (3 credit hours)
- EDF 7463 Analysis of Survey, Record and Other Qualitative Data (3 credit hours)
- IDS 7502 Case Studies in Research Design (3 credit hours) or one of the following approved research electives:
  - EDF 7406 Multivariate Statistics in Education (3 credit hours)
  - EDF 7405 Quantitative Methods II (3 credit hours)
  - EDF 7410 Application of Nonparametric and Categorical Data Analysis in Education (3 credit hours)
  - EDF 7415 Latent Variable Modeling in Education (3 credit hours)

- EDF 7473 Ethnography in Educational Settings (3 credit hours)
    - EDF 7474 Multilevel Data Analysis in Education (3 credit hours)
    - EDF 7488 Monte Carlo Simulation Research in Education (3 credit hours)
    - SPA 7495 Doctoral Seminar II: Spoken and Written Language Disorders (Communication Sciences Track students only) (3 credit hours)
- EDF 7406 Multivariate Statistics in Education (3 credit hours) or one of the following approved research electives:
    - IDS 7938 Research Cluster Seminar (3 credit hours)
    - EDF 7405 Quantitative Methods II (3 credit hours)
    - EDF 7410 Application of Nonparametric and Categorical Data Analysis in Education (3 credit hours)
    - EDF 7415 Latent Variable Modeling in Education (3 credit hours)
    - EDF 7473 Ethnography in Educational Settings (3 credit hours)
    - EDF 7474 Multilevel Data Analysis in Education (3 credit hours)
    - EDF 7488 Monte Carlo Simulation Research in Education (3 credit hours)
    - SPA 7495 Doctoral Seminar II: Spoken and Written Language Disorders (Communication Sciences Track students only) (3 credit hours)

Specialization—~~30~~ 27 Credit Hours

- MHS 7406 Advanced Theories in Counseling (3 credit hours)
- MHS 7801 Advanced Practicum in Counselor Education (3 credit hours)
- MHS 6510 Advanced Group Counseling (3 credit hours)
- MHS 7700 ~~Professional Issues in Counselor Education (3 credit hours)~~ Literature and Leadership in Counselor Education
- MHS 7311 Professional ~~Technology Issues in Counselor Education~~ Scholarship and ~~Grant Writing~~ External Funding in Counselor Education (3 credit hours)
- MHS 7611 Supervision in Counselor Education (3 credit hours)
- MHS 7808 Practicum in Counseling Supervision (3 credit hours)
- ~~MHS 7340 Advanced Career Development (3 credit hours)~~
- ~~MHS 6221 Individual Psychoeducational Testing II (3 credit hours)~~
- MHS 7730 Research Seminar in Counselor Education (3 credit hours)
- MHS 7XXX Advanced Multicultural Counseling (already approved by GCC)

Dissertation—24 Credit Hours

Doctoral students must present a prospectus for the dissertation to the doctoral adviser, prepare a proposal and present it to the dissertation committee, and defend the final research submission with the dissertation committee.

Required Internship—6 Credit Hours

- MHS 7840 Internship in Counselor Education (repeatable) (6 credit hours minimum)

TRACK DESCRIPTION

The CACREP accredited Counselor Education track in the Education PhD program is designed specifically for those who wish to pursue careers as counselor educators at the university level or as supervisors in schools or agencies.

The program is fully accredited with the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). In addition to advanced curricular experiences in counseling, courses are designed to examine the fundamental issues and theory of teaching adults in higher education, research, supervision, consultation and to provide supervised experiences in each area. The UCF Community Counseling and Research Center serves as a hub for teaching and research in the program, includes facilities for group counseling and play therapy, and provides annual services to over 1,400 individuals, couples, and families in the central Florida community. The clinic also provides opportunities for doctoral students to practice their supervision skills.

Hide Program Description⌄

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The Counselor Education track in the Education PhD program requires a minimum of 84 credit hours beyond the master's degree. Students must complete 2~~7~~4 credit hours of core courses, ~~30~~ 27 credit hours of specialization courses, 24 credit hours of dissertation, and 6 credit hours of internship. All students must also complete the candidacy examination.

Total Credit Hours Required:

84 Credit Hours Minimum beyond the Master's Degree

Required Courses—54 Credit Hours

Core—27~~24~~ Credit Hours

- IDS 7501 Issues and Research in Education (3 credit hours)
- IDS 7500 Seminar in Educational Research (~~variable credit and repeatable,~~ 3~~6~~ credit hours)
- EDF 6401 Statistics for Educational Data (3 credit hours)
- EDF 7475 Qualitative Research in Education (3 credit hours)
- EDF 7403 Quantitative Foundations of Educational Research (3 credit hours)
- EDF 7463 Analysis of Survey, Record and Other Qualitative Data (3 credit hours)
- IDS 7502 Case Studies in Research Design (3 credit hours) or one of the following approved research electives:
    - EDF 7406 Multivariate Statistics in Education (3 credit hours)
    - EDF 7405 Quantitative Methods II (3 credit hours)
    - EDF 7410 Application of Nonparametric and Categorical Data Analysis in Education (3 credit hours)
    - EDF 7415 Latent Variable Modeling in Education (3 credit hours)

- EDF 7473 Ethnography in Educational Settings (3 credit hours)
  - EDF 7474 Multilevel Data Analysis in Education (3 credit hours)
  - EDF 7488 Monte Carlo Simulation Research in Education (3 credit hours)
  - SPA 7495 Doctoral Seminar II: Spoken and Written Language Disorders (Communication Sciences Track students only) (3 credit hours)
- EDF 7406 Multivariate Statistics in Education (3 credit hours) or one of the following approved research electives:
  - IDS 7938 Research Cluster Seminar (3 credit hours)
  - EDF 7405 Quantitative Methods II (3 credit hours)
  - EDF 7410 Application of Nonparametric and Categorical Data Analysis in Education (3 credit hours)
  - EDF 7415 Latent Variable Modeling in Education (3 credit hours)
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  - EDF 7474 Multilevel Data Analysis in Education (3 credit hours)
  - EDF 7488 Monte Carlo Simulation Research in Education (3 credit hours)
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Specialization—2730 Credit Hours

- MHS 7406 Advanced Theories in Counseling (3 credit hours)
- MHS 7801 Advanced Practicum in Counselor Education (3 credit hours)
- MHS 6510 Advanced Group Counseling (3 credit hours)
- MHS 7700 Professional Issues in Counselor Education (3 credit hours)Literature and Leadership in Counselor Education
- MHS 7311 Professional Technology Issues in Counselor EducationScholarship and Grant WritingExternal Funding in Counselor Education (3 credit hours)
- MHS 7611 Supervision in Counselor Education (3 credit hours)
- MHS 7808 Practicum in Counseling Supervision (3 credit hours)
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- MHS 7XXX Advanced Multicultural Counseling (already approved by GCC)

Dissertation—24 Credit Hours

Doctoral students must present a prospectus for the dissertation to the doctoral adviser, prepare a proposal and present it to the dissertation committee, and defend the final research submission with the dissertation committee.

Required Internship—6 Credit Hours

- MHS 7840 Internship in Counselor Education (repeatable) (6 credit hours minimum)

![University of Central Florida logo]

Graduate Course Action Request Form

☐ Course Addition   ☑ Course Revision   ☐ Course Deletion

Forward to your college office

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

Course Information

College: **CEDHP**

Department: **CFCS**

Department Chair: **Glenn Lambie**

Phone: **407-823-4779**

Approved Graduate Faculty/Scholars: **M. Ann Shillingford-Butler**

	Course Prefix	Number	Title	Credit Hours Ex.: 3(3,0)
Current or New Course	MHS	7311	Technology Issues in Counselor Education	3
Proposed Course Revision	MHS	7311	Scholarship and External Funding in Counselor Education	3

30 Character Abbreviation: **SEFCE**

Course Description (25 word limit)

Emphasis on review processes and grant writing for State and Federal agencies, as well as Private Foundations.

New or revised Materials and Supply Fees? ☐ Yes ☑ No   If yes, also complete the Materials and Supply Fee Request Form.

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): **Admission into UCF's Counselor Education Ph.D. Program**

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: **None**

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 the 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 Course   ☐ Elective Course

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VP02 Rev. 08/09/2016 08:40 AM

Justification for Course Addition or Course Revision

What is the rationale for adding or revising this course?

> This course is being revised to address updated accreditation standards and better identify the content/objectives of the course through the name.

What majors require or recommend this course for graduation? Counselor Education PhD

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

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.

> None. This is an existing course in the counselor education catalog.

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

> # No deletion

Notes:

Approval Signatures

Department Chair _____ Date 2/21/2018

College Academic Standards _____ Date 02/21/2018

College Dean _____ Date 2/26/18

Graduate Council _____ Date

Vice President for Research and
Dean of the College of Graduate Studies _____ Date

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF EDUCATION
Department of Child, Family and Community Sciences
Counselor Education Program
MHS 7311: Scholarship & External Funding in Counselor Education

Instructor: Sejal M. Barden, PhD, NCC, LPC, ACS
Office: ED 322H
Office Hours: BY APPOINTMENT
E-mail: Sejal.Barden@ucf.edu

MHS 7311 will meet on Mondays from 10:30-1:20 in room ED 322 Conference Room.

Course Objectives:

This course will provide an introduction to the basic skills, principles and techniques of successful grant writing. Students completing the course will:

- Understand the fundamental components of a grant proposal such as the abstract or summary, background and significance, specific aims/goals and objectives, project design and methods, budget, budget justification, and cover letter as well as the overall grant submission process.
- Learn how to locate available funding opportunities.
- Develop basic understanding of skills needed to develop competitive grant proposals.

Student Responsibilities

As a student taking this course, your responsibilities are to:

1. Attend class regularly and **actively** participate in all classroom activities (discussions, presentations, exercises, etc.). Your attendance and active participation in the class are critical to your own learning as well as that of your peers and the overall success of the course.
2. Complete all required assignments and submit them according to the schedule in the "Schedule of Classes and Assignments."
3. Late Assignments. No assignments will be accepted late. It is the student's responsibility to ensure assignments are submitted on time.
4. Honor Policy. Academic honesty is fundamental to the activities and principles of the University of Central Florida. Any effort to gain advantage not provided to all students violates the university's honor code. Such a violation is a serious offense, the consequences of which range from probation to expulsion. It is the professor's responsibility to uphold fairness for all students. Any questions or issues concerning the honor code should be brought to the professor's attention immediately. Please review the Student Handbook for the full UCF Academic Integrity Policy.

(**The format for the course will require your __active__ involvement in learning, discussing, and applying information from class readings.**

Assignments

1. Facilitation of discussion- Students will be responsible to facilitate discussion with peers based on the readings. Given that the class is a doctoral seminar, the discussion does not need to include a formal handout, rather the student shall prepare *2-3 thoughtful questions* to facilitate a discussion of materials read prior to class. If guest lecturer is present on week of discussion, the student will be encouraged to introduce the guest speaker to the class by summarizing speaker's experiences and success in research and external funding.

2. Logic Model- Students will prepare a logic model per guidelines/rubric. Resources will be given for suggested format, however students are encouraged to create the model as best suits their individual research plan and proposal. Students will receive feedback on drafted model to incorporate into final version as appropriate.

3. Specific Aims- Students will draft a 1 page, single spaced Specific Aims using rubric, NIH guidelines and course resources.

4. Final draft of Specific Aims and Project Narrative – Students will develop the following sections of an NIH RO3 grant proposal: Specific Aims (1 page), Background, Significance, Innovation and Approach/Potential Barriers (combined length is no more than 6 pages, single spaced). Students will participate in peer reviews of specific areas and offer constructive feedback to peers that align with prioritized NIH evaluative criteria (see Specific Aims and Proposal Rubrics for detailed information).

   a. Active participation in Peer-Review Process

Throughout the semester, students will participate in several peer review assignments related to developing an NIH grant proposal. This process will require students' active engagement, critical thinking and ability to provide constructive feedback that is thoughtful and helpful to peers. Peer review rubrics will be provided and collected.

5. Counselor Education Grant Proposal – Students will explore ACA divisions based on research interests and draft 1 proposal for 1 selected division. Students will turn in copy of funding description, drafted outline for proposal and a 1 page Biosketch.

6. Participation/Attendance
All students are required to actively participate in class discussions, assignments, and group projects. Because of the seminar format of this course, you are responsible for critically reading and preparing for class. Active participation in this process, evidenced by thoughtful questions, comments, and responses to questions in a respectful atmosphere of "give-and-take" demonstrate your accepted responsibility for your learning in this course.

Active participation includes but is not limited to the following: (1) answering questions posed by the instructor and peers, (2) sharing appropriate anecdotal information with regards to classroom topics or issues being discussed, (3) actively working on in-class exercises, (4) exploring ideas concerning class topics, and (5) attending all classes. Active participation will be evaluated in the following way:

•**Excellent (5 pts.)**: Proactive participation: Respectfully listen when others talk, actively contribute to class by offering ideas and asking questions, provides thoughtful questions on note cards, and never display disruptive behaviors. Is present for every class and is on time.

•**Satisfactory (4 pts.):** Reactive participation: Follow-up contributions, but rely on others' reactions and studies, questions on note cards are primarily summaries of readings, or just reflect opinion rather than exploration, contemplation, and study. Is present for every class and is tardy less than 3 times.

•**Minimally acceptable (3 pts.):** Present and awake, but passively participate and not actively involved. Fails to turn in note cards or minimal effort was put into questions. Misses one class and/or is tardy more than 3 times.

•**Unsatisfactory (0-2 pts.):** Present, but not attentive, irrelevant contributions that inhibit the progress of the class, display disruptive behavior and unwillingness to learn. Misses more than one class.

(Please see me as soon as possible if you have special needs or problems with any assignment.)
**Students with a physical impairment or other learning difficulty that necessitates special circumstances or devices in the classroom or when taking examinations, should consult with the professor regarding their special needs. Student Disability Services offers a variety of services to assist students needing such accommodations and students are encouraged to contact this office. They can be reached at Ferrell Common, FC 132, 407-823-2371.

Assignment Point Breakdown

Copy of funding announcements	5	
Draft of Logic Model and Specific Aims	20	
(with revisions from peer review)		
Draft of Project Narrative	20	
FINAL Specific Aims and Project Narrative	25	
(with revisions from peer review)		
Participation in peer review	10	
Outline for Counselor Education grant	5	
1 page Biosketch	5	
Reading discussion	5	
Attendance/Participation	5	

Total points   = 100

University Grading Scale	
A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D	60-69
F	< 60

Tentative Class Schedule and Assignments

(Subject to change)

DATE	TOPIC	READINGS	DUE (Before class)
01/08/18	Introduction to Course, Review of Syllabus; Draft Research/Education Agenda	Villalba & Young (2012); Cronan and Deckard (pgs.1-11)	
01/15/18	_NO CLASS- MLK Holiday_		
01/22/18	Overview of Federal Funding; Review of Grants.gov Discussion:	Cronan and Deckard (pgs. 12-33); APS (1-13)	Research into 2-3 selected universities Office of Research
01/29/18	Project Design Discussion:	Cresswell- Mixed Methods Penrod- Qualitative	Grant search- Bring in 2 funding announcements
02/05/18	Creating a Logic Model Discussion:	Cronan and Deckard (pgs. 34-45); Kellogg Foundation- Logic Model	
02/12/18	Peer Review of Logic Model	NIH Specific Aims Guidance (PDF)	2 copies of drafted **Logic Model**
02/19/18	Specific Aims/Fatal Mistakes Discussion:	Berg et al. (2007); Oetting (1986); APS (15-41)	
02/26/18	Peer Review of Specific Aims		2 copies of drafted **Specific Aims**
03/5/18	Project Narrative Discussion:	Cronan and Deckard (pgs. 44-65)	Revised draft of **Logic Model and Specific Aims**
03/12/18	_NO CLASS- SPRNG BREAK_		
03/19/18	Peer Review of Narrative	NIH Scoring; TBD	2 copies of **Project Narrative**
03/26/18	Meeting with Program Officers; Creating a Budget Discussion:	Cronan and Deckard (pgs. 66-84); Porter (2009)	

04/02/18	Submitting the Application/ Administering the grant		**FINAL** draft of **Specific Aims and Project Narrative**
04/09/18	Grants in Counselor Education		2 ACA division announcements for funding/grants
04/16/18	Biosketch; Guest panel of speakers (TBD)		**Outline for CE grant with 1 page Biosketch**
04/23/18	Last day of class/wrap-up!		

*** Syllabus is subject to change at instructor's discretion***

Specific Aims Rubric

Review the 1-page Specific Aims and include narrative feedback under appropriate category. The purpose of this evaluation is to strengthen the proposal, therefore providing constructive feedback is imperative.

Introductory Paragraph- WHY	Strong	Satisfactory	Weak
Opening sentence containing around 3-4 extremely creative thoughts. - State what is *known* about this issue. - State what is *unknown* about this issue. - State why is this lack of knowledge important			
2nd Paragraph- WHAT/WHOM	Strong	Satisfactory	Weak
- State the overall, long-term goal of your mission. - State the overall objective of this application. This is a step to achieving your long term goal. - State your hypothesis, rationale for your hypothesis, or how did you come up with the central hypothesis. - Briefly explain why your research design and team investigators are the best possible solution for the topic at hand.			
3.Specifics Paragraph- HOW/WHY	Strong	Satisfactory	Weak

	Strong	Satisfactory	Weak
▪ Detail your specific aims that will test your central hypothesis, citing primary and secondary endpoints.			
4. <u>Payoff paragraph</u> ▪ Briefly explain why this application is innovative ▪ State your expected outcomes, or what you expect to find at the conclusion of the study. ▪ State plainly and simply the general positive impact that your study will have on the population at large. ▪ In other words, why should we care, why should you get funding, and what is the payback for your work?	Strong	Satisfactory	Weak
4. <u>Overall impression:</u> ▪ Provide feedback on clarity of writing, grammar, punctuation ▪ Strength of argument (are you interested in continuing to read proposal and potentially fund? What would further convince you)?	Strong	Satisfactory	Weak

Proposal Evaluation Rubric

Principal Investigator: _____

Reviewer: _____

*** *Remember 1 is the highest score possible and 9 is the lowest score possible*

Overall Impact Reviewers will provide an overall impact/priority score to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following review criteria and additional review criteria (as applicable for the project proposed).

Write a paragraph summarizing the factors that informed your Overall Impact score.

Score 1 2 3 4 5 6 7 8 9

Reviewers will consider each of the review criteria below in the determination of scientific and technical merit, and give a separate score for each.

Background

1. Does literature review include a significant statement of the problem and relevant/recent citation to support proposed research?

Score 1 2 3 4 5 6 7 8 9

Strengths

-

Weaknesses

-

Significance Does the project address an important problem or a critical barrier to progress in the field?

1. If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or

clinical practice be improved?

2. How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Score 1 2 3 4 5 6 7 8 9

Strengths

-

Weaknesses

-

Innovation

1. Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions?

2. Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense?

3. Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Score 1 2 3 4 5 6 7 8 9

Strengths

-

Weaknesses

-

Approach/Potential Barriers/Strategies

1. Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project.

2. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.

Score 1 2 3 4 5 6 7 8   9

Strengths

-

Weaknesses

-

<u>Clarity of Information</u>

1. Is proposal formatted in APA style, clear of grammatical errors, correct punctuation, etc?

2. Is proposal within prescribed guidelines (5-7 pages, single spaced, size 11 font)?

Score 1 2 3 4 5 6 7 8   9

Strengths

-

Weaknesses

-

Checklist: NIH Specific Aims

1st Paragraph
- ☐ Introduce the project.

  - o Relate the project to the agency's mission.

- ☐ Educate the reviewer.

  - o Summarize the important knowledge.

- ☐ Identify the gap in the knowledge or state the critical need.

- ☐ Identify the problem created by the gap or need.

2nd Paragraph

- ☐ Describe your long-range research or career goal(s).

  - o Ensure that your long-range career goal aligns with the agency's mission.

- ☐ State your overall project goal.

  - o Ensure that the overall project goal addresses an identified gap in knowledge and represents a step toward achieving your long-range career goal.

- ☐ Present your central hypothesis (or, alternatively, a statement of need).

  - o Be sure that you present a true hypothesis – one that can be objectively tested to determine its validity – rather than a predetermined conclusion.

- ☐ Explain your rationale for pursuing the project.

  - o Indicate what it will be possible to accomplish when your research is complete.

- ☐ Describe your qualifications and research environment.

  - o How you are better prepared than other, equally qualified researchers.

  - o Identify special training, expertise, experience, and, most importantly, relevant preliminary data.

o   Identify access to human and animal subject pools; to unique equipment and

instrumentation; and to collaborations and partnerships.

3rd Paragraph

☐   Delineate your specific aims in a bulleted list.

o   Ensure that specific aims correlate with your central hypothesis.

o   Ensure that all specific aims relate to and support your overall project goal.

o   Delineate a reasonable number of specific aims, presented in a logical order.

o   "Why" aims are generally stronger than "what" aims.

o   Define a clear purpose, working hypothesis or statement of need, and expected

outcome for each specific aim.

o   Make sure no specific aim is dependent on the successful outcome of another aim.

4th Paragraph

☐   Identify the project's innovation, e.g., a unique approach or technology.

☐   Delineate the project's expected outcomes.

o   Should validate central hypothesis and resolve gap in knowledge.

☐   Summarize the project's significance

o   Provides segue to Background and Significance

Graduate Course Action Request Form

☐ Course Addition ☑ Course Revision ☐ Course Deletion

Forward to your college office

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

Course Information

College: **CEDHP**

Department: **CFCS**

Department Chair: **Glenn Lambie**

Phone: **407-823-4779**

Approved Graduate Faculty/Scholars: **M. Ann Shillingford-Butler**

	Course Prefix	Number	Title	Credit Hours Ex.: 3(3,0)
Current or New Course	MHS	7700	Professional Issues in Counselor Education	3
Proposed Course Revision	MHS	7700	Literature and Leadership in Counselor Education	3

30 Character Abbreviation: **LLCE**

Course Description (25 word limit)

Emphasis on current trends, leadership development, and, consultation in Counselor Education.

New or revised Materials and Supply Fees? ☐ Yes ☑ No   If yes, also complete the Materials and Supply Fee Request Form.

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): **Admission into UCF's Counselor Education Ph.D. Program**

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: **None**

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 the 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 Course   ☐ Elective Course

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VP02 Rev. 08/09/2016 08:40 AM

Justification for Course Addition or Course Revision

What is the rationale for adding or revising this course?

> This course is being revised to address updated accreditation standards and better identify the content/objectives of the course through the name.

What majors require or recommend this course for graduation? Counselor Education PhD

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

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.

> None. This is an existing course in the counselor education catalog.

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

> # No deletion

Notes:

Approval Signatures

Department Chair _____ Date 2/21/2018

College Academic Standards _____ Date 02/21/2018

College Dean _____ Date 2/26/18

Graduate Council _____ Date _____

Vice President for Research and
Dean of the College of Graduate Studies _____ Date _____

UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF EDUCATION & HUMAN PERFORMANCE
Department of Child, Family, and Community Sciences
Counselor Education Program
MHS 7700: Literature and Leadership in Counselor Education
Fall 2018

Instructor:	W. Bryce Hagedorn, PhD, LMHC, NCC, MAC, QCS(FL)
Office:	ED 322N
Office Hours:	Wednesdays 2:00pm-5:00pm
(Call for an appointment)	Thursdays 1:00pm-4:00pm
Phone:	407-823-2999
E-mail:	Bryce.Hagedorn@ucf.edu
Website:	Course material can be found in Dropbox

MHS 7700 will meet on Tuesday afternoons from 1:30 to 4:20 in room ED 322.

Required Text: American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

Purpose of the Course

The purpose of this doctoral-level course is to introduce students to the major roles, responsibilities, and activities of counselor educators as teachers, supervisors, researchers, consultants and service providers. The theory, research, and use of a variety of techniques in teaching, research, and service will be examined through assigned readings, seminar discussions, lectures, case presentations, guest speakers, and student assignments.

Student Responsibilities

As a student taking this course, your responsibilities are to:
1. Attend class regularly and **actively** participate in all classroom activities (discussions, presentations, exercises, etc.). Your attendance and active participation in the class are critical to your own learning as well as that of your peers and the overall success of the course.
2. Complete all required assignments and submit them according to the schedule in the "Schedule of Classes and Assignments."

The format for the course will require your <u>active</u> involvement in learning, discussing, and applying information from class readings.

Course Objectives:

At the conclusion of MHS 7700: *Literature and Leadership in Counselor Education,* students should have learned and/or be able to demonstrate the necessary knowledge, skills, dispositions, and attitudes of a counselor educator/supervisor in the areas of Teaching, Research/Scholarly Productivity, and Leadership. Students will therefore meet the following objectives as informed by CACREP (2016):

Leadership in Counselor Educator
1) Understand the major roles, responsibilities, and activities of counselor educators as teachers, supervisors, researchers, consultants and service providers.
2) Understand the role that leadership and leadership development plays in professional organizations (Doctoral Standards VI.B.5.b).
3) Understand the role that leadership plays in counselor education programs (Doctoral Standards VI.B.5.c).
4) Understand the role that leadership plays in the accreditation process (Doctoral Standards VI.B.5.d).
5) Understand the role that leadership, management, and administration in counseling organizations and other institutions (Doctoral Standards VI.B.5.e).
6) Understand strategies of leadership in consultation (Doctoral Standards VI.B.5.g).
7) Understand the ethical, legal, and multicultural issues associated with counselor preparation training.

Research and Scholarly Productivity (Research/Presentations) in Counselor Educator
5) Demonstrate writing competencies and oral presentation skills necessary for success in the profession of counselor education.
6) Develop a research interest, beginning with writing research questions appropriate for professional research and publication (Doctoral Standards VI.B.4.g).
7) Demonstrate professional writing skills necessary for journal and newsletter publication through collaborative relationships with program faculty (Doctoral Standards VI.B.4.h).
8) Demonstrate the ability to develop and submit a program proposal for presentation at state, regional, or national counseling conferences (Doctoral Standards VI.B.4.i).
9) Understand the ethical and culturally relevant strategies for conducting research (Doctoral Standards VI.B.4.l).

(Please see me as soon as possible if you have special needs or problems with any assignment.)

**Students with a physical impairment or other learning difficulty that necessitates special circumstances or devices in the classroom or when taking examinations, should consult with the professor regarding their special needs. Student Accessibility Services offers a variety of services to assist students needing such accommodations and students are encouraged to contact this office. They can be reached at Ferrell Common, FC 132, 407-823-2371.

<u>Assignments</u>

ALL assignments should be typed, double-spaced, and use 12-point New Times Roman font. Assignments not meeting these minimum standards will be returned and counted as late.

1. Participation
All students are required to actively participate in class discussions, assignments, and group projects. Because of the seminar format of this course, students are responsible for critically reading and preparing for class, which will often begin with a discussion about that week's topic. For each week's class, students will be assigned to co-facilitate these discussions with the instructor, which will include their identifying 1-2 articles pertinent to that week's topic (which will be sent to the class at least one week prior to their assigned date). Active participation in this process, evidenced by thoughtful questions, comments, and responses to questions in a respectful atmosphere of "give-and-take" demonstrate students accepted responsibility for their learning in this course. In addition to those readings identified by students, additional readings are identified in the course schedule.

Prior to each class, students are expected to have read, digested, and prepared at least 2 written questions/discussions points *per reading*. These will be used to facilitate discussion and will be submitted to the instructor to serve as your attendance for that day.

<u>Research/Scholarly Productivity</u>

2. Scholarly Manuscript (45 points)
The major assignment for this course involves students developing a scholarly manuscript, which will be submitted for publication in a national, refereed counseling journal. This manuscript will involve collaboration with a counselor education faculty member, who will serve as the co-author. The following steps will guide this assignment:
1. Students will be paired with a participating counselor education faculty member who shares their research ideas. This faculty member will serve as a co-author (i.e. second) on the manuscript
2. Students will schedule regular meetings with their identified co-author. It is *highly* recommended that you meet with your co-author at least bi-weekly, with the **minimum number of meetings being 6**.
3. Students will discuss & process their ideas for their scholarly manuscript with their co-author, reaching a collaborative decision on the manuscript's topic, research question(s), and dissemination outlets.
4. Students will conduct a comprehensive review of the literature and begin constructing their scholarly manuscript. As students are the first author of their manuscript, they are the primary writers of the manuscript.
5. Students will follow the Class Schedule and Assignments for due dates related to the following elements of their manuscript:
    a. Topic and title (1.25 points)
    b. Bibliography of 20 journal articles (1.25 points)
    c. Outline (1.25 points)
    d. 15 page rough draft (1.25 points)
6. Students will distribute a draft (minimum 15 pages) of their scholarly manuscript to their classmates & the instructor and participate in a formative and summative review with feedback.
7. Students will submit their final scholarly manuscript to a national, refereed counseling journal prior to the final class meeting.
8. Students will present their scholarly manuscript topic to the class and receive feedback on their presentation skills and their manuscript topic.

The instructor will receive feedback from your counselor education faculty member co-author regarding your performance throughout the semester. This assignment will be graded based upon the criteria found in the

Scholarly Manuscript Evaluation Rubric, which is to be printed (found in Dropbox) and submitted to the instructor. *(Course Objectives 6, 7, 8, & 10)*

3. **Presentation of Scholarly Manuscript** (5 points)
Typically, counselor educators disseminate their scholarly work in two formats: written (e.g., articles published in refereed journals) and orally (papers presented at refereed conferences). Therefore, students will conduct a **30-minute** presentation based upon their Scholarly Manuscript similar to what they would present at a refereed national conference (e.g., ACA, ACES). This assignment will be graded based upon the thoroughness of the presentation and how well it covers all the main topics from the manuscript. *(Course Objectives 6 & 9)*

4. **Conference Proposal** (10 points)
Students will develop a professional conference proposal based upon a topic of their choosing. Part of this process will include students (a) paying attention to the content covered in the "How to Write a Proposal" lecture offered in class, (b) picking the most appropriate venue to showcase their work, (c) writing a strong proposal (and making adjustments based upon peer and instructor feedback), and (d) submitting the proposal (and providing documented evidence of this process). The presentation proposal should include the following:
    1. Title (*125 characters*)
    2. Summary of experience (*2000 characters*)
    3. Rationale (*2000 characters*)
    4. Content Description (*4000 characters*)
        a. Educational content (topic, theoretical foundations, nature of research, most important information)
        b. The target audience and area of application (e.g., school setting, private practice, managed care)
        c. Learning objectives
        d. How you will structure the presentation in order to involve the audience (e.g., case example discussions, exercises)
        e. The kinds of materials provided to attendees
        f. The relevance of the proposal content to multicultural/diversity information (e.g. race, ethnicity, gender, disability/ability, socioeconomic status, sexual orientation, marital status, religious preference, culture, geographic location, and/or age)
        g. Counseling ethics as it relates to your topic
    5. Program Guide Description (*750 characters*)
This assignment will be graded based upon the criteria found in the **Conference Proposal Evaluation Rubric**, which is to be printed (found in Dropbox) and submitted to the instructor. Please mark your "character count" at the conclusion of each section of the proposal. *(Course Objectives 6, 7, 9, & 10)*

<div align="center">

<u>Leadership in Counselor Educator</u>

</div>

5. **Interviews of Counselor Educators** (15 points)
Students will participate in two rounds of group interviews of counselor educators from 1) UCF and 2) beyond UCF. Students will generate interview questions (which must be submitted to the instructor for final approval). Each student is responsible for writing a minimum of a **4-page** reaction paper, focusing on how the interviews impacted their professional development. *(Course Objectives 1, 2, 3, & 5)*
    1. UCF Faculty: This portion of the assignment involves participating in group interviews of the UCF faculty over lunch (everyone pays for their own lunch).
    2. Beyond UCF: This portion of the assignment involves participating in group interviews of faculty from beyond UCF, who will join the class via Skype.

6. Accreditation Project (10 points)
Students will participate in the reading and evaluation of a CACREP Self-Study. Small groups will be formed and self-studies assigned to each group, with each group being responsible for identifying whether or not the program is in compliance with the CACREP Standards. Members of each group will receive the same amount of points (based upon a completed "site-visit report" which will be provided to students in class), so the aforementioned self-and-other evaluative process will be implemented. *(Course Objectives 1 & 4)*

7. Establishing Professional Presence Project (15 points)
Students will start to establish their professional presence by 1) creating a professional website, 2) identifying and joining a division of the American Counseling Association that matches their professional goals, and 3) identifying a marketing strategy for the provision of consultation services in an area of their choosing. *(Course Objectives 1, 2, & 6)*
   1. Students will develop a webpage that highlights their professional identity in teaching, supervision, scholarly productivity, consultation, service, practice, and academic achievements. The platform for creating the webpage, as well as instructions for posting it to the hosting website, will be discussed in class.
   2. Students will provide evidence of (a) having joined a division of the American Counseling Association and (b) making contact with the leadership of the division and inquiring about how they might get involved in the future.
   3. Students will develop a consultation marketing strategy, which should include (but is not limited to): (a) the detailed identification of those areas for which you are (and plan to be) prepared to consult in; (b) the identification of consultees (i.e. agencies, schools, businesses, etc.) that would benefit from your services (and how they would benefit); (c) a timeline for the implementation of your consultation practice; (d) attractive and professional brochures that highlight the areas in which you can provide consultation services; (e) how you will use social media outlets to promote your services, and; (f) a one-page contract for your consultation services.

Assignment Point Breakdown

Scholarly Manuscript	45 points
Presentation of Scholarly Manuscript	5 points
Conference Proposal	10 points
Interviews of Counselor Educators	15 points
Accreditation Project	10 points
Professional Presence Project	15 points
Total points =	**100 points**

University Grading Scale	
A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D	60-69
F	< 60

Classroom Policies

Attendance Requirements
All students are expected to attend class and participate fully in exercises and assignments. Your attendance and participation will be recorded according to the schedule noted above in the Assignments.

Late Assignments
Ten percent will be deducted for each day an assignment is late (i.e. handed in after class) including weekend days. **No** assignments will be accepted after **one week**. It is the student's responsibility to ensure assignments are submitted on time. Although electronic submissions are permissible, email attachments are not always reliable. This method therefore has inherent risks and it is advised that printed assignments be submitted in person. If you choose to submit something by email, the professor will send a "**return receipt**" stating that he received your submission. **Print and keep this receipt** and be ready to produce it when requested (in the event that the professor does not have your assignment). If the professor does not have your assignment and you do not have your "receipt," this indicates that you did not turn in the assignment and appropriate points will be deducted.

Professionalism
We may occasionally deal with personal, professional, and sensitive matters. It is imperative that we engage in a respectful dialogue, even when we disagree. Please remember that any personal information revealed during class time is confidential and should be confined to the class. Similarly, students will need to display the ability to give and accept constructive feedback and collaborate with their peers. It is the instructor's responsibility to ensure that doctoral students possess the abilities to handle these professional responsibilities.

Sexual Harassment
Title IX makes it clear that violence and harassment based on sex that interferes with educational opportunities is an offense subject to the same penalties as offenses based on other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources, and information concerning reporting options at shield.ucf.edu. Perpetrators are subject to expulsion or termination and may also be subject to criminal penalties.

Electronic Communication Devices
Please ensure that all cellular phones or pagers are turned off (or set on "vibrate") for the duration of the class. The professor reserves the right to answer any ringing telephone. If laptops or tablets are used in class, they must be focused on course content. Students using devices for non-class related activities will lose the opportunity to use these devices.

Honor Policy
Academic honesty is fundamental to the activities and principles of the University of Central Florida. Any effort to gain advantage not provided to all students violates the university's honor code. Such a violation is a serious offense, the consequences of which range from probation to expulsion. It is the professor's responsibility to uphold fairness for all students. Any questions or issues concerning the honor code should be brought to the professor's attention immediately. Please review the Student Handbook for the full UCF Academic Integrity Policy. In order to receive full credit for any assignment, **you must sign and date the Honor Policy statement** that is found on the Scoring Rubric for each assignment that you hand in. Papers without this signed statement will not be accepted.

Class Schedule and Assignments
(Subject to change)

Week	Date	Topic	Readings	Assignments
1	**Aug 22**	Introduction to the course Class orientation and syllabus review		
2	**Aug 29**	Field trip to the Library		**Confirmation of meeting w/co-author due**
3	**Sept 5**	Introduction to the profession and scholarly writing	1, 2	**Topic and title due**
4	**Sept 12**	Literature review and outline	3, 4	
5	**Sept 19**	Skype Interview 1 Writing a first draft and developing a coherent essay	5, 6 (optional: 22, 23, 24, 25)	**Manuscript outline due**
6	**Sept 26**	Writing for Publication	7, 8	**List of 20 journal articles due**
7	**Oct 3**	Skype Interview 2 APA Style and incorporating feedback	9, 10, 11	
8	**Oct 10**	Professional presentations and proposals	12, 13	
9	**Oct 17**	Models of consultation		
10	**Oct 24**	Skype Interview 3	14, 15, 16	
11	**Oct 31**	Draft manuscript review	17, 18, 19	**15 pages of manuscript due**
12	**Nov 7**	CACREP accreditation		**Faculty interview reflection paper due**
13	**Nov 14**	Team Building – Challenge Course		**Accreditation project due**
14	**Nov 21**	*Gender and Race in Academia* Speaker: Dr. Shillingford	20, 21	**Presentation proposal due**
15	**Nov 28**	Presentations		**Professional presence project due**
16	**Dec 5**	Presentations		**Manuscript & submission due**

*** Syllabus and schedule is subject to change at instructor's discretion***

Reading List

1. Dollarhide, C. T., Gibson, D. M., & Moss, J. M. (2013). Professional identity development of counselor education doctoral students. *Counselor Education and Supervision*, *52*(2), 137-150.
2. Borders, L. D., Young, J. S., Wester, K. L., Murray, C. E., Villalba, J. A., Lewis, T. F. & Mobley, A. K. (2011). Mentoring promotion/tenure-seeking faculty: Principles of good practice within a counselor education program. *Counselor Education and Supervision, 50*(3), 171–188. doi:10.1002/j.1556-6978.2011.tb00118.x
3. Watts, R. E. (2011). Developing a conceptual article for publication in counseling journals. *Journal of Counseling and Development, 89*, 308-312.
4. Rockinson-Szapkiw, A. J., & Knight, A. (no date). *Build a literature review and identify a theoretical or conceptual framework*.
5. Jones, K. D. (no date). *Sample outline*.
6. Stuart, A. (no date). *How to: Outlining a research paper*.
7. Lambie, G. W., Sias, S. M., Davis, K. M., Lawson, G., & Akos, P., (2008). A scholarly writing resource for counselor educators and their students. *Journal of Counseling & Development, 86*, 18-25.
8. Smaby, M. H., & Crews, J. (1998). Publishing in scholarly journals: Part 1—Is it an attitude or technique? It's an attitude. *Counselor Education and Supervision, 37*(4), 218–223. doi:10.1002/j.1556-6978.1998.tb00546.x
9. APA corrected sample paper (no date). Washington, DC: Author
10. Wester, K. L. (2011). Publishing ethical research: A step-by-step overview. *Journal of Counseling & Development, 89*(3), 301-307.
11. Jones, K. D. (1999). Ethics in publication. *Counseling and Values, 43*, 169-175.
12. Stuart, A. E. (2013). Engaging the audience: Developing presentation skills in science students. *Journal of Undergraduate Neuroscience Education, 12*(1), A4–A10.
13. McKeachie, W. J. (no date). *Improving presentation style*. Retrieved from: https://teachingcenter.wustl.edu/resources/teaching-methods/lectures/improving-presentation-style/
14. Villalba, J. A., & Young, J. S. (2012). Externally funded research in counselor education: An overview of the process. *Counselor Education and Supervision*, *51*(3), 141-155.
15. Lambie, G. W., & Vaccaro, N. (2011). Doctoral counselor education students' levels of research self-efficacy, perceptions of the research training environment, and interest in research. *Counselor Education and Supervision*, *50*(4), 243-258. doi:10.1002/j.1556-6978.2011.tb00122.x
16. How to review a journal article. Adapted from "Information from Reviewers" of Foreign Language Annals, a publication of the American Council on the Teaching of Foreign Languages (ACTFL).
17. Moate, R. M., Gnilka, P. B., West, E. M., & Bruns, K. L. (2016). Stress and burnout among counselor educators: Differences between adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. *Journal of Counseling & Development, 94*(2), 161-171. doi:10.1002/jcad.12073
18. Isaacs, M. L. & Sabella, R. A. (2013). Counselor educator compensation, work patterns, and career outlook. *Journal for International Counselor Education, 5,* 32-49. Retrieved from http://digitalscholarship.unlv.edu/jice/
19. Robinson III, E. H. (1994). Critical issues in counselor education: Mentors, models, and money. *Counselor Education & Supervision, 33*(4), 339-343.
20. Bradley, C., & Holcomb-McCoy, C. (2004). African American counselor educators: Their experiences, challenges, and recommendations. *Counselor Education and Supervision, 43*(4), 258-273. doi:10.1002/j.1556-6978.2004.tb01851.x
21. Alexander-Albritton, C., & Hill, N. R. (2015). Familial and institutional factors: Job satisfaction for female counselor educators. *Counselor Education and Supervision, 54*(2), 109–121. doi:10.1002/ceas.12008
22. Conceptual Sample 1: Gutierrez, D. & Hagedorn, W. B. (2013). The toxicity of shame: Applications for acceptance and commitment therapy. *Journal of Mental Health Counseling, 35*(1), 43-59.

23. Conceptual Sample 2: Hagedorn, W. B., & Hirshhorn, M. A. (2009). When talking won't work: Implementing experiential group activities with addicted clients. *Journal for Specialists in Group Work, 34*, 43-67.
24. Empirical Sample 1: Hagedorn, W. B. (2009). Sexual addiction counseling competencies: Empirically-based tools for preparing clinicians to recognize, assess, and treat sexual addiction. *Sexual Addiction and Compulsivity: The Journal of Treatment and Prevention, 16*(3), 190-209.
25. Empirical Sample 2: Foster, J. A., & Hagedorn, W. B. (2014). Through the eyes of the wounded: A narrative analysis of children's sexual abuse experiences and recovery process. *Journal of Child Sexual Abuse, 23*(5), 538-557.

26. Clayton, S., & Bongar, B. (1994). The use of consultation in psychological practice: Ethical, legal, and clinical considerations. *Ethics & Behavior, 4*, 43-57.
27. Newman, J. L. (1993). Ethical issues in consultation. *Journal of Counseling & Development, 72*(2), 148-156. doi:10.1002/j.1556-6676.1993.tb00914.x
28. Baker, S. B., Robichaud, T. A., Dietrich, V. W., Wells, S. C., & Schreck, R. E. (2009). School counselor consultation: A pathway to advocacy, collaboration, and leadership. *Professional School Counseling, 12*, 200-206.
29. Myers, J., Sweeney, T., & White, V. (2002). Advocacy for counseling and counselors: A professional imperative. *Journal of Counseling and Development, 80*, 394-402.
30. Sangganjanavanich, V., & Lenz, S. A. (2012). The experiential consultation-training model. *Counselor Education and Supervision, 51*, 296-307.
31. Toropek, R. L., Lewis, J. A., & Crethar, H. C. (2009). Promoting systemic change through the ACA advocacy competencies. *Journal of Counseling and Development, 37*, 260-268.

College of
Graduate Studies
UCF

Graduate Program Recommendation Form - INACTIVATIONS

This form is to be used to **INACTIVATE** degree programs, tracks, or certificate programs.

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

Checklist of Items to be attached with completed form:

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

☐ To terminate all degree programs within a given CIP code, at a given level (i.e., master's, specialist, doctorate, professional program), attach the Board of Governors Academic Degree Program Termination Form, along with all required information. Once termination is approved through the Board of Trustees and Board of Governors, a full degree proposal would be required to offer the program in the future.

☑ If applicable, attach a teach out plan.

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

■ **INACTIVATION - Proposed Effective Term / Year:** Fall 2018

The program will be removed from the online application and new students will not be able to apply. Students active in the program are eligible to complete the program under the appropriate criteria and an appropriate teach out plan is required. The program will be removed from the graduate catalog as of the approved term.

Unit(s) Housing Program: College of EDHP, Department of Child, Family and Community Sciences

Name of program, track and / or certificate: Severe or Profound Disabilities Graduate Certificate

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

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

Brief description of program and rationale for the inactivation:

This program was developed at a time when the state required that teachers of students with severe or profound disabilities earn a state endorsement in this area. The five course certificate meets the criteria for that endorsement. However, the state dropped this requirement several years ago and enrollment in the certificate has steadily declined. Over that past five years, most of the students who have been enrolled in this certificate have been supported through a grant through the Office of Special Education Programs which funds students for a Masters Degree in Exceptional Student Education which incorporates the SPD certificate. This grant is now in a no cost extension year. Of the nine students who are currently enrolled in the certificate program, seven are grant funded and will graduate by December 2018. The remaining two will also be able to complete the program by December 2018.

Given that faculty resources to support and teach this program will be limited once the grant funding ends combined with the low enrollment in the program, ESE faculty have deemed it appropriate to inactivate the program.

Impact on Current Students

Are students currently enrolled in the program? ■ Yes ☐ No

If yes, number of current students: __9__

Attach a "teach out" plan for all current students specifying how they can finish the program or where students will be placed if moving to another program. The "teach out" plan should specify when courses will be offered to enable students to finish. Specify whether students will remain in the existing program to finish, and if yes, when the completion date will be, whether students will be moved to another program, etc.

Enter the terms and courses that will be taught for each term throughout the last semester:

Fall	Spring	Summer	Fall	Spring
		EMR 6235	EEX 6246	EEX 6246
			EEX 6759	EEX 6946
			EEX 6946	EEX 6297
			EEX 6297	

Signatures

Recommend Approval *(all approval levels must be signed)*

Graduate Faculty Program Coordinator:

Print: _Cynthia Pearl_   Signature: _Cynthia Pearl_   Date: _2/12/18_

Department Chair / Director:

Print: _Glenn Lambie_   Signature: _Glenn Lambie_   Date: _2/12/2018_

College Academic Standards:

Print: _Valerie A Storey_   Signature: _Valerie A Storey_   Date: _02/21/2018_

College Dean:

Print: _J P Mendez_   Signature: _____   Date: _2/26/18_

Graduate Council:

Print: _____   Signature: _____   Date: _____

Vice President for Research and Dean of the College of Graduate Studies:

Print: _____   Signature: _____   Date: _____

Approval

Provost and Executive Vice President:

Print: _____   Signature: _____   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

Teach Out Plan

None of the current students, nor any students who apply for summer 2018 will have difficulties completing the certificate. Please note, four of the five certificate courses will continued to be offered as part of the ESE Masters program.

EMR 6235 will be offered in summer 2018. All current certificate students will be advised to take EMR 6235 in summer 2018. Depending on interest in this course, EMR 6235 may or may not be offered as a Masters elective in summer 2019.

The seven students who are funded through Project SPD have Graduate Plans of Study that incorporate all five courses for graduation by December 2018.

Jan Ortiz has completed EEX 6246 and EEX 6297. Should take EMR 6235 in summer 2018. May enroll in remaining two courses as needed.

Jessica Thompson has completed EEX 6246, EEX 6946, EEX 6759, and EEX 6297. Has been advised to take EMR 6235 in summer 2018 to complete the certificate.

Course Agenda- March 7, 2018

1. Course Additions

College of Engineering and Computer Science Course Additions

EAS 6XXX   **CECS-MECH/AERO**   **3(3,0)**
Multidisciplinary Optimization Under Uncertainty: PR: EML 5060 or C.I. Formulation of design objectives as optimization problems. Application of optimization techniques to design. Surrogate techniques for analytical and experimental optimum engineering design. Applications to project. *Even Fall.*
Abbrev: (29 of 30 chars) MDO Under Uncertainty in Aero
<u>Rationale</u>: Multidisciplinary optimization and uncertainty quantification are key elements in areas like engineering design, manufacturing, and service of industrial equipment with applications in aviation, transportation, power generation. The course will support the new Aerospace Engineering PhD program.
<u>Majors taking course</u>: Aerospace Engineering Graduate program

EAS 6XXX   **CECS-MECH/AERO**   **3(3,0)**
Estimation of Dynamical Systems in Aerospace Engineering: PR: EML 5271, EML 5060 or C.I. Concepts of parameter estimation, probability concepts in estimation and estimation of dynamical systems relevant to aerospace systems applications. *Odd Fall.*
Abbrev: (28 of 30 chars) Estimation Dynamical Systems
<u>Rationale</u>: This course will address the computation of the best estimates of a dynamical system's actual behavior from the available measurements and the system model relevant to aerospace systems. The course will support the new Aerospace Engineering PhD program.
<u>Majors taking course</u>: Aerospace Engineering Graduate Program

EAS 6XXX   **CECS-MECH/AERO**   **3(3,0)**
Non-Destructive Evaluation of Aero-structures: PR: Overview of methods employed for non-destructive evaluation of structures in the context of damage tolerant analysis. EAS 4200 or EML 5237 *Odd Spring.*
Abbrev: (22 of 30 chars) NDE of Aero Structures
<u>Rationale</u>: Emphasis will be on inspection methods such as X-ray, ultrasonics, eddy currents, penetrants, magnetic flux, and visual methods employed to ensure structural integrity of aerospace vehicles, and a broad class of high performance structures. The course will support the new Aerospace Engineering PhD program.
<u>Majors taking course</u>: AE and ME Graduate Program majors

EAS 6XXX   **CECS-MECH/AERO**   **3(3,0)**
Structural & Dynamic Stability: PR: EML 5237, EML 5271. Concepts of and analysis methods for elastic and dynamic stability and associated bifurcations, including for high strain rates and structures with multiple stable equilibria. *Even Spring.*
Abbrev: (30 of 30 chars) Structural & Dynamic Stability
Rationale: The course covers fundamental concepts of elastic and dynamic stability to enable engineers to conduct a buckling analysis of standard engineering structures and know how to apply modern tools to predict stability of more advanced structures. The course will support the new Aerospace Engineering PhD program.
Majors taking course: AE and ME Graduate Program majors

EAS 7XXX   **CECS-MECH/AERO**   **1-99(1-99,0)**
Dissertation: PR: Candidacy status. Dissertation *Spring, Summer, Fall.*
Abbrev: (12 of 30 chars) Dissertation
Rationale: To provide Dissertation credits as part of the Aeropsace PhD requirements

2. Special Topics Additions

College of Education and Human Performance Special Topics Additions

EDF 7939   **ED-CFCS**   **3(3,0)**
Mixed Methods Research in Education: PR: Students are expected to have completed a foundational masters-level research course. This course provides a doctoral-level introduction to mixed methods research methods and methodology design and its implementation for educational contexts. *Occasional.*
Abbrev: (32 of 30 chars) ST: Mixed Methods Resrch in Educ
Discussion with others: No duplications at this time.
Rationale: Previously, a master's level course (EDF 6464) focused on master's level students research needs in service learning contexts. However, we need a doctoral level course in mixed methods research (MMR) to prepare our doctoral students for their research and dissertations. Since the 2000's, MMR has evolved to include specific approaches, typologies, and terminology beyond those of the individual quantitative and qualitative fields. Students completing this course will produce better quality MMR studies, publications and dissertations.

PET 5937   **ED-E&HS**   **3(3,0)**
Physical Activity and Nutritional Epidemiology: PR: Admission to Sport and Exercise Science MS. Interaction of physical activity and nutrition with disease, as well as epidemiological methods and analysis techniques used to examine these behaviors. *Occasional.*
Abbrev: (28 of 30 chars) ST: Phys Activ & Nutr Epidem
Discussion with others: The department chair of Health Management and Informatics has been emailed to insure that there is no conflict between the proposed course and their current course:

HSC 4500 Epidemiology. In a comparison of the two course syllabi, there does not appear to be any conflict.

3. Course Revisions

College of Education and Human Performance Course Revisions

MHS 7311
~~Professional Issues in Counselor Education II~~
3(3,0)

Scholarship and External Funding in Counselor Education

PR: ~~MHS 7700 or C.I.~~ Admission into UCF's Counselor Education PhD program. ~~Advanced emphasis~~ Emphasis on ~~the major roles, responsibilities,~~ review processes and ~~activities of counselor educators, including a variety of techniques in teaching, research, consultation, grants, advocacy,~~ grant writing for State and ~~counseling.~~ Federal agencies, as well as Private Foundations.

Abbrev (27 of 30): ~~Prof Issues in Couns Educ~~ Sch and Ext Fund Couns Educ

Rationale: This course is being revised to address updated accreditation standards and better identify the content/objectives of the course through the name. There are no programs that list MHS 7311.

MHS 7700
~~Professional Issues in Counselor Education~~ 3(3,0)

Literature and Leadership in Counselor Education

PR: Admission to PhD program in Education--Counselor Education track.
Emphasis on ~~professional issues related to counselor education including teaching, research,~~ current trends, leadership development, and ~~service.~~ consultation in Counselor Education.

Abbrev (25 of 30): ~~Prof Issues in Counselor Educ~~ Lit and Lead in Coun Educ

Term Offered: ~~Spring~~ Fall

Rationale: This course is being revised to address updated accreditation standards and better identify the content/objectives of the course through the name. There are no programs that list MHS 7700.

~~EDF 6464~~
~~Mixed Methods for Evaluation in Educational Settings~~
3(3,0)

EDF 7XXX
Mixed Methods Research in Education

PR: EDF 6401 and EDF 6481 or C.I. Students are expected to have completed a foundational masters-level research course.

This ~~service learning~~ course ~~will examine component~~ provides a doctoral-level introduction to mixed methods research methods and ~~integrated mixed method designs toward developing a~~

~~proposal~~ <u>methodology design and its implementation</u> for ~~a program evaluation for a local nonprofit organization.~~ <u>educational contexts.</u>
Term Offered: <u>Summer</u>
<u>Rationale</u>: Previously, the course focused on master's level students research needs in service learning contexts. However, we need a doctoral level course in mixed methods research (MMR) to prepare our doctoral students for their research and dissertations. Since the 2000's MMR has evolved to include specific approaches, typologies, and terminology beyond those of the individual quantitative and qualitative fields. Students completing this course will produce better quality MMR studies, publications and dissertations. <u>There are no programs that list EDF 6464.</u>

EDF 6401   **Statistics for Educational Data**   **3(3,0)**
PR: ~~EDF 6481 or COM 6304 or C.I.~~ <u>Graduate Standing or C.I.</u>
Design of educational evaluation; analysis of data, descriptive and inferential statistics, interpretation of results.
Term Offered: Fall, Spring, Summer
<u>Rationale</u>: This course revision will remove the pre-req for this class, which is currently EDF 6481, COM 6304 or comparable research methods course. Currently and historically students who have not completed EDF 6481 have been allowed to enroll in EDF 6401 as the need for concepts that are pulled from EDF 6481 really come into play in the research study assignment, where students need to define the sampling method, operationally define terms, describe the research design and similar research methods concepts. There have not been cases where students who have not had EDF 6481 have been at a deficit as the overwhelming majority of the class focuses on introductory statistical concepts. The removal of EDF 6481 as a pre-req will also assist in increasing access to the course from other colleges who now have to get approval from the professor prior to enrolling.

College of Engineering and Computer Science Course Revisions

EEE 5332C   **Thin Film Technology**   ~~**3(2,1)**~~
                                                                                  3(2,3)

PR: EEE 3350 or equivalent.
Presents the various thin film deposition techniques for the fabrication of microelectronic, semiconductor, and optical devices.
Term Offered: ~~Occasional~~ <u>Spring</u>
<u>Rationale</u>: The contact hours are being changed to correctly reflect time distributed between lectures and labs.
<u>There are no programs that list EEE 5332C.</u>

4. Course Deletions
5. Course Continuations