

Graduate Council Curriculum Committee

**February 4, 2013
12:00 p.m., MH 243**

Agenda

1. Welcome and call to order
2. Review of minutes from the 12/03 meeting
3. Revisions to the MA Ed Leadership-Higher Ed/Student Personnel track, CED
4. Name change to the MS Sport.Exer.Science-Coaching and Sport Admin. track, CED
5. Revisions to the CNS Adult-Gero graduate certificate, CON
6. Revisions to the MSN-Nurse Educator track, CON
7. Addition of a graduate certificate in Fundraising, COHPA
8. Revisions to the MS Aerospace Engr program, CECS
 - Space Systems Design & Engineering track
 - Thermofluids Aerodynamic Systems Design & Engr track
 - Accelerated BS to MSAE track
9. Revisions to the MS Mechanical Engineering Program, CECS
 - Mechanical Systems track
 - Thermofluids track
 - Accelerated BS to MSME track
10. Revisions to the PhD in Mechanical Engineering, CECS
11. Revisions to the PhD Industrial Engineering, CECS
12. Revisions to the MS in Industrial Engineering, MSIE, CECS
13. Revisions to the MS Industrial Engineering, CECS
 - Accelerated BS to MS revisions
 - Human Systems Engr/Ergo track inactivation
 - Interactive Sim & Training Systems track inactivation
 - Quality Systems Engineering track inactivation
 - Systems Engineering track inactivation
 - Systems Operations and Model track inactivation
14. Courses and special topics
 - Cellular and Molecular Neuroscience split class, COM
15. Adjournment

Members of the Graduate Council Curriculum Committee:

Charles Kelliher, CBA (chair)
Donna Malvey, COHPA
Kerry Purmzensky, CAH
Art Weeks, CECS
Harry Weger, COS
Deborah Breiter, RCHM
Joyce Nutta, CED
Terrie Sypolt, LIB
Julee Waldrop, CON
Boris Zeldovich, COP
Antonis Zervos, COM
Lucretia Cooney, GSA
Max Poole, CGS Liaison



UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use Track Changes in Word).

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

Proposed Effective Term/Year: May 2013

Unit(s) Housing Program: Educational & Human Sciences

Name of program, track and/or certificate: M.A. in Educational Leadership-Higher Education/Student Personnel Track

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

The Higher Education/Student Personnel track in the Educational Leadership M.A. program is designed to prepare students for leadership positions in student personnel administration in higher education and education-related fields.

DELIVERY - Will program be delivered: ☒ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Fall and Spring admission. No summer admission. Deadlines are the same for all program tracks.

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Application requirements are the same for all tracks in the program. Students are admitted directly into each track.

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Rosa Cintron, Ph.D.; Rosa.CintronDelgado@ucf.edu; 407-823-1248

University of Central Florida; College of Education; P.O. Box 161250; Orlando, FL 32816-1250

<http://education.ucf.edu/highered>

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Please check one: this action affects a: ☒ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

☐ Addition. Please proceed to Part A.

☒ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

☐ Inactivation

☐ Temporary Suspension of Admissions. Give Length of Suspension:

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☒ Yes

☐ No

Department Chair:

E. H. Roberts III

Date:

11/28/12

☒ Yes

☐ No

College Curriculum Committee Chair:

Rosemary Taylor

Date:

12/3/12

☒ Yes

☐ No

College Dean:

B. Aust Hays

Date:

12/13/12

☐ Yes

☐ No

Chair or GSC:

Date:

☐ Yes

☐ No

Dean, College of Graduate Studies:

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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

Requested changes to the program are more appropriate for the inclusion of contemporary issues of attrition and retention in higher education.

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.)

Add EDH 6105, Retention Strategies in Colleges and Universities, as an option in the program of study for the M.A. in Educational Leadership-Higher Education/Student Personnel Track.

Retain all other courses in the program.

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 provide a list of students if possible:

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

Name Change

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

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

N/A

Provide the name of the current program, track, or certificate:

N/A

When is the name change effective? Please note: A 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.

N/A

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

N/A

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

N/A

new CIP:

N/A

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

N/A

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

Current students will be impacted by the program revision. They will have more options regarding the selection of electives for their program of study.

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If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

N/A

If an addition, 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.

N/A

	Year 1	Year 2	Year 3
Headcount	N/A	N/A	N/A
SCHs	N/A	N/A	N/A

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

N/A

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1	N/A	N/A	N/A	N/A	N/A
Year 2	N/A	N/A	N/A	N/A	N/A
Year 3	N/A	N/A	N/A	N/A	N/A

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

N/A

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014
N/A	N/A	N/A	N/A	N/A

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

Higher Education/Student Personnel Track

Program Tracks

- [Higher Education/Student Personnel](#)
- [Higher Education/Community College Education](#)

Program Disciplines

This program belongs to the following disciplines:

- [Education](#)

College : [Education](#)

Degree :MA

Department : [Educational and Human Sciences](#) Option : Nonthesis

Program Websites : <http://education.ucf.edu/highered/>

TRACK DESCRIPTION

The Higher Education/Student Personnel track in the Educational Leadership MA program is designed to prepare students for leadership positions in student personnel administration in higher education and education-related fields.

[Read More](#)

CURRICULUM

Total Credit Hours Required:

39 Credit Hours Minimum beyond the Bachelor's Degree

The Higher Education/Student Personnel track in the Educational Leadership MA program requires a minimum of 39 credit hours beyond the bachelor's degree, including six credit hours of core courses, 24 credit hours of specialization, three credit hours of electives, six credit hours of professional field experience, and passing a comprehensive exam at the end of studies.

The MA program does not fulfill state certification requirements.

Required Courses—30 Credit Hours

Core—6 Credit Hours

- EDF 6481 Fundamentals of Graduate Research in Education (3 credit hours)
- EDF 6432 Measurement and Evaluation in Education (3 credit hours) or EDF 6401 Statistics for Educational Data (3 credit hours)

Specialization—SELECT 24 Credit Hours

- EDH 6635 Organization and Administration of Higher Education (3 credit hours)
- EDH 6065 History and Philosophy of Higher Education (3 credit hours)
- EDH 6505 Finance in Higher Education (3 credit hours)
- EDH 6935 Capstone Seminar in Student Personnel (3 credit hours)
- EDH 6407 Ethical and Legal Issues in College Student Personnel (3 credit hours)
- EDH 6634 Student Personnel Services in Higher Education (3 credit hours)
- EDH 6044 Career Exploration in Higher Education (3 credit hours)
- EDH 6047 The College Community and the Student (3 credit hours)
- EDH 6105 Retention Strategies in Colleges and Universities (3 credit hours)

Elective Courses—3 Credit Hours

- Electives approved by adviser

Professional Field Experience—6 Credit Hours

- EDH 6946 Higher Education Internship (3 credit hours)
- EDH 6947 Practicum in Student Personnel (3 credit hours)

INDEPENDENT LEARNING

Both an internship and practicum are required for completing the degree, in addition to a capstone seminar.

Application Requirements

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

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

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Three letters of recommendation, with one being from a staff, administrator, or faculty at a college or university familiar with your involvement or engagement in postsecondary education.
- Résumé.

- Personal statement explaining your past, present, and future involvement in events or activities related to your development in College Student Personnel.

An individual and group interview may be required. The Higher Education/Student Personnel track admits in fall and spring terms only.

Application Deadlines

Higher Education/Student Personnel	Fall Priority	Fall	Spr	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

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

Contact Info

Graduate Program

Rosa Cintron-Delgado PhD

Associate Professor

rcintron@ucf.edu

Telephone: 407-823-1248

Education 206K [Map](#)

Graduate Admissions

Admissions Counselor

gradadmissions@ucf.edu

Telephone: 407-823-2766 ext. 253

Millican Hall 230 [Map](#)

[Online Application](#)

[Graduate Admissions](#)

Program Action Request Form

College/Unit(s) Submitting Proposal: College of Education (CED)

Proposed Effective Term/Year: Summer 2013 (2013-14 Catalog)

Unit(s) Housing Program: Child, Family and Community Sciences

Name of program & track: Sport and Exercise Science M.S. - Coaching and Sport Administration Track

Description of program (this description will show up in the graduate catalog copy):

See the attached catalog copy with track changes.

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☒ Mixed delivery

Admissions deadlines: N/A Admission deadlines will not change.

APPLICATION REQUIREMENTS: N/A - No revisions

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

For the Sport and Exercise Science (M.S.) PROGRAM and all TRACKS:

Jeffrey Stout, Ph.D., Associate Professor E-mail: Jeffrey.Stout@ucf.edu Telephone: 407-823-0211; Office: Orlando Campus ED 320K

<http://education.ucf.edu/sportexscience/>

Please check one: This action affects a: ☒ Program ☒ Track

Please check one: This action is a(n):

☒ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

Program/Track Revisions:

- 1) Action: Change the Track name from "Coaching and Sport Administration" to "Coaching".
- 2) Action: Revise Track catalog description for the overall program to reflect the track name change.
- 3) Action: Revise the Sport and Exercise Science M.S. catalog description to reflect the Coaching track name change.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it. N/A

Signature Page

RECOMMENDATIONS

☒ Yes ☐ No Department Chair: Jay Hoffman, PhD Date: 11/9/12

☒ Yes ☐ No College Curriculum Committee Chair: Rosemary Taylor Date: 12/3/12

☒ Yes ☐ No College Dean or Unit Head: B. Hunt Hoge Date: 12/13/12

☒ Yes ☐ No Chair or GSC: Sandra Houri Date: 1/8/13

☐ Yes ☐ No Dean, College of Graduate Studies: Date:

APPROVAL

Provost and Vice President for Academic Affairs:

Date:

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

Department(s); College; Registrar; Associate Registrar; Institutional Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates:

Brief Statement of Program Change and rationale:

In the past three years the Sport and Exercise Science M.S. program has undergone evaluation and a renewed focus on the direction of graduate study. This has resulted in several changes being made to reflect the expertise and direction of the new graduate faculty recently hired in Sport and Exercise Science. There are three areas of applied and scientific research identified that has become the basis of our graduate study and research: 1) elite athletic development; 2) youth health and fitness; and 3) exercise and nutrition interventions to enhance the quality of life for mature adults.

The Sport and Exercise Science Program has three tracks, one of which is Coaching and Sport Administration. In keeping with the continuous quality improvement of the program, the program proposes the track name change from "Coaching and Sport Administration" to "Coaching". The curriculum and courses currently offered are not being revised; therefore the track name change does not adversely affect the unit, students or faculty.

Rationale: Revising the Track name from "Coaching and Sport Administration" to "Coaching" will better reflect the focus on the scientific and theoretical aspect of coaching, which reflects the expertise of our faculty.

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

X No

Will students have the option to stay in their existing program, track, or certificate? ☒ Yes

Name Change: X Yes; Changing the name of one track within the M.S. program.

If yes, provide the new name of the program: N/A - The program name does not change

Provide the name of the current program: Sport and Exercise Science, Master of Arts (M.S.)

If yes, provide the new name of the track: Track Name Change to "Coaching"

Provide the name of the current track: "Coaching and Sport Administration"

When will the name changes become effective? Summer 2013 (2013-14 catalog)

Will students have the option to stay in their existing program, track, or certificate? Yes

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide: N/A

Checklist of items to be provided:

- ☒ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- N/A Attach all appropriate course action requests that will be necessary to implement the changes.
- N/A Emails showing consultation with other units. Does not apply
- N/A If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- N/A If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Graduate Catalog Copy Revisions
Program: Sport and Exercise Science M.S.
Revise only the following areas of the Graduate Catalog:

1) Sport and Exercise Science MS Located at:

<http://www.graduatecatalog.ucf.edu/programs/program.aspx?id=1382&program=Sport%20and%20Exercise%20Science%20MS>

PROGRAM DESCRIPTION

The Master of Science in Sport and Exercise Science provides an in-depth study of applied human physiology and how it relates to athletic performance and health and wellness across the lifespan. Additional areas of study focus on sport nutrition, environmental physiology and exercise biochemistry. Students interested in coaching will receive a thorough understanding of the physiological development of the athlete, and combine this knowledge with appropriate principles of coaching learning to maximize athlete potential and develop realistic and attainable training goals. Students can choose among three tracks within the Sport and Exercise Science Program: Applied Exercise Physiology, Coaching, or Sport Nutrition.

2) Coaching and Sport Administration Located at:

<http://www.graduatecatalog.ucf.edu/programs/program.aspx?id=1382&tid=862&track=Coaching%20and%20Sport%20Administration>

TRACK DESCRIPTION

The Coaching track in the Sport and Exercise Science MS program prepares students to become more effective coaches by understanding scientific aspects of human performance. In addition, students will develop skills related to planning, organizing, managing, and evaluating, within the context of the team or sport. Focus will be on the physiological and psychological preparation, evaluation and expectation of athlete performance. Theoretical and methodological aspects of coaching a variety of athletes is also an important element of the program's curriculum.

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Roanne Brice 11/9/12 1:13 PM

Deleted: a group, department, or organization whose primary product or service is related to sport and/or physical activity. Program graduates have gone on to careers in areas such as coaching at all levels of sport, intercollegiate and interscholastic athletics administration, parks and recreation, fitness and health club leadership, and community sport centers.

Roanne Brice 11/9/12 1:18 PM

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UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is February 1 of each year. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are due by March 15. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use Track Changes in Word).

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

Proposed Effective Term/Year: Fall 2013

Unit(s) Housing Program: College of Nursing

Name of program, track and/or certificate: Clinical Nurse Specialist Adult-Gerontology Certificate

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

The Post-master's Clinical Nurse Specialist Adult/Gerontology Graduate Certificate prepares nurses who already have received a master's degree in nursing for positions as Clinical Nurse Specialists. The program is 18 credit hours and include up to 540 hours of clinical practice. There are 15 credit hours or pre/co requisite requirements.

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☒ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

October 1

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

See attached.

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Susan K. Chase, susan.chase@ucf.edu, 407-823-6274

12201 Research Parkway, Orlando, FL 32826

www.nursing.ucf.edu

Page 2 of UCF Program Recommendation Form

Please check one: this action affects a: ☐ Program ☒ Track ☐ Certificate

Please check one: this action is a(n):

☐ Addition. Please proceed to Part A.

☒ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

☐ Inactivation

☐ Temporary Suspension of Admissions. Give Length of Suspension:

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☒ Yes ☐ No Department Chair: Susan H. Cross Date: 1/7/13
☒ Yes ☐ No College Curriculum Committee Chair: Debra Anderson Date: 1/7/13
☒ Yes ☐ No College Dean: John Chubb Date: 1/8/13
☐ Yes ☐ No Chair or GSC: _____ Date: _____
☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A -- For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

Due to changes in the degree program that prepares Clinical Nurse Specialists, the courses and course sequences have changed. These revisions to the CNS Certificate Program are aligned with those changes.

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.)

Prerequisite of 12 credit hours has now change to Pre or Co requisites of 15 credit hours.
Required courses has changed from 22 credit hours downward to 21 credit hours.
Track will admit in Spring.

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 provide a list of students if possible:

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

Name Change

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

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Diane Andrews, PhD, RN
Christopher Blackwell, PhD, ARNP, ANP-BC
Susan Chase, EdD, ARNP, FNP-BC
Maureen Covelli, PhD, RN
Loretta Forlaw, PhD, RN, FACHE
Linda Gibson-Young, PhD, RN
Carolyn Hix, DNP, RN, NEA-BC
Mary Lou Sole, PhD, RN, CCNS, FAAN, FCCM
Steven Talbert, PhD, RN
Julee Waldrop, DNP, ARNP, PNP-BC, FNP-BC
Diane Wink, EdD, FNP-BC, ARNP, FAANP

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

No impact on students.

Page 6 of UCF Program Recommendation Form

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial **REVISIONS** to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For Inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

--

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. Please delete course prefixes and numbers in this section if no teach out plan is required.

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

UCF College of Nursing
Adult/Gerontology Clinical Nurse Specialist Track Advisement Form – Certificate

Student Name: _____

PID: _____

Date: _____

Curriculum		Individual Plan of Study	
	Credits	Semester/Year	Course
Pre-Co-Requisites			
NGR 5141	3		
NGR 6172	3		
NGR 5003	3		
Pathophysiological Bases for APN Pharmacology for Advanced Nursing Adv. Health Assessment and Diagnostic Reasoning	3 3 3 2		
NGR 5003L	1	Spring 1	NGR 6265 Adult/Gero CNS I (3)
NGR 5720	3		NGR 6265L Adult/Gero CNS I Clinical (3) (180 hours)
NGR 6874	3		6 Credits
Advanced Health Assessment Clinical Organizational Dynamics Nsg Envir Mgt			
Certificate Courses		Summer 1	
Adult/Gero CNS I	3		
Adult/Gero CNS I Clinical	3	Fall 2	NGR 6266 Adult/Gero CNS II (3)
Adult/Gero CNS II	3		NGR 6266L Adult/Gero CNS II Clinical (3) (180 hours)
Adult/Gero CNS II Clinical	3		6 Credits
Adult/Gero CNS III	3		
Adult/Gero CNS III Clinical	3	Spring 2	NGR 6267 Adult/Gero CNS III (3)
			NGR 6267L Adult/Gero CNS III Clinical (3) (180 hours)
Total Required			
540 clinical hours	18		6 Credits

Comments: _____

Students Signature: _____

Advisor: _____

~~Adult-Gerontology Clinical Nurse Specialist Certificate~~

Clinical Nurse Specialist Adult-Gerontology Certificate

PROGRAM DESCRIPTION

~~The Adult-Gerontology Clinical Nurse Specialist Certificate allows students who have already been admitted to the Doctor of Nursing Practice program to sit for certification examinations when they have completed the required courses. Certification authorizes students to function in the advanced practice role while they complete the DNP curriculum. The Certificate is awarded to DNP students who hold an MSN degree but not as an Adult-Gerontology Clinical Nurse Specialist.~~

The Post-master's Clinical Nurse Specialist Adult/Gerontology Graduate Certificate prepares nurses who already have received a master's degree in nursing for positions as Clinical Nurse Specialists. The program is 18 credit hours and includes up to 540 hours of clinical practice. There are 15 credit hours of pre/co requisite requirements.

~~Applicants must contact the College of Nursing (gradnurse@ucf.edu or 407-823-2744) prior to applying for this certificate program.~~

CURRICULUM

Prerequisites—12 Credit Hours Pre or co requisites—15 Credit Hours

Students must demonstrate successful completion of the following courses:

- NGR 5003 Advanced Health Assessment and Diagnostic Reasoning (2 credit hours)
- NGR 5003L Advanced Health Assessment and Diagnostic Reasoning (1 credit hour)
- NGR 5141 Pathophysiological Bases for Advanced Nursing Practice (3 credit hours)
- NGR 6172 Pharmacology for Advanced Nursing Practice (3 credit hours)
- ~~NGR-5638 Health Promotion (3 credit hours)~~

- NGR 5720 Organizational Dynamics (3 credit hours)
- NGR 6874 Nursing Environment Management (3 credit hours)

Required Courses—221 Credit Hours

In addition, students must successfully complete all of the following DNP Clinical Nurse Specialist Adult-Gerontology Clinical-Nurse Specialist Track courses:

- NGR 5720 Organizational Dynamics (3 credit hours)
- NGR 6782 Adult CNS I (3 credit hours)
- NGR 6782L Adult CNS I Clinical (2 credit hours, 120 clinical hours)
- NGR 6263 Gerontologic Care for APNs (3 credit hours)
- NGR 6264L Gerontologic Care Clinical for CNS (2 credit hours, 120 clinical hours)
- NGR 6783 Adult CNS II (3 credit hours)
- NGR 6783L Adult CNS II Clinical (2 credit hours, 120 clinical hours)
- NGR 6758L CNS Advanced Practicum (4 credit hours, 240 clinical hours)
- NGR 6265 Adult/Gero CNS I (3 credit hours)
- NGR 6265L Adult/Gero CNS I Clinical (3 credit hours, 180 clinical hours)
- NGR 6266 Adult/Gero CNS II (3 credit hours)
- NGR 6266L Adult/Gero CNS II Clinical (3 credit hours, 180 clinical hours)
- NGR 6267 Adult/Gero CNS III (3 credit hours)
- NGR 6267L Adult/Gero CNS III Clinical (3 credit hours, 180 clinical hours)

Upon completion of all these courses, students will submit the Graduate Certificate Completion Form in order to be certified to receive the Certificate.

Application Requirements

Admission is open to those who are currently enrolled in the Post-Baccalaureate Adult-Gerontology Clinical-Nurse Specialist DNP program. An application to the graduate certificate program and official transcripts must be submitted. Applicants must contact the College of Nursing (gradnurse@ucf.edu or 407-823-2744) prior to applying online.

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

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.

- BSN and MSN degree from an accredited institution.
- Undergraduate Statistics course.
- Licensure as a registered nurse in the State of Florida. (Out of state applicants must be eligible for licensure in Florida and must achieve RN licensure to begin clinical courses.)
- Address the following 3 items in a written essay. Total word count for all (not each) answers should be 500 words or less, double spaced, 12 point Times New Roman font, and 1 inch margins:
 - Describe how your professional experiences have prepared you for future education in the role which is the focus of your desired track.
 - Describe your plans to alter your work, professional and/ or personal obligations in order to have the time needed for graduate course and clinical practice work.
 - Identify one significant contemporary issue/ problem in the US Health care system and explore how members of the nursing profession can help address that issue or solve that problem.
- Curriculum Vitae which reflects prior education, recent clinical accomplishments, any recent scholarly work (publications and presentations), awards, additional certifications, and activities with professional organizations. For recent graduates this can include accomplishments as a student.
- An interview with faculty may also be required.
- Applicants to this program are strongly encouraged to complete the necessary information requested for the ETS PPI (Personal Potential Index) report that is available during the GRE examination. All official PPI reports must be submitted directly to the UCF College of Graduate Studies (use UCF Institution Code: 5233).

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Tab after: 0.5" + Indent at: 0.5"

Application Deadlines

Adult-Gerontology Clinical Nurse Specialist Certificate	Fall Priority	Fall	Spring	Summer
Domestic Applicants	-	Mar 15	Oct 1	-
International Applicants	-	Jan-15	Jul-1	-
International Transfer Applicants	-	Mar-1	Sept-1	-

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Program Profile

Program Stats



UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes** in Word).

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

Proposed Effective Term/Year: Fall 2013

Unit(s) Housing Program: College of Nursing

Name of program, track and/or certificate: MSN Nurse Educator

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

As shown in catalog.

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☒ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Same

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Same

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Susan K. Chase, susan.chase@ucf.edu, 407-823-6274

University Tower, UTRW +2210

www.nursing.ucf.edu

Page 2 of UCF Program Recommendation Form

Please check one: this action affects a: ☐ Program ☒ Track ☐ Certificate

Please check one: this action is a(n):

☐ Addition. Please proceed to Part A.

☒ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

☐ Inactivation

☐ Temporary Suspension of Admissions. Give Length of Suspension:

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☒ Yes ☐ No Department Chair: Susan K. Class Date: 1/15/13
☒ Yes ☐ No College Curriculum Committee Chair: Diane Andrews Date: 1/15/2013
☒ Yes ☐ No College Dean: John Sherman Date: 1/16/2013
☐ Yes ☐ No Chair or GSC: _____ Date: _____
☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

See attachment.

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.)

See attachment.

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 provide a list of students if possible:

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

Name Change

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

Page 5 of UCF Program Recommendation Form

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Diane Andrews, PhD, RN
Christopher Blackwell, PhD, ARNP, ANP-BC, CNE
Susan Chase, EdD, ARNP, FNP-BC
Dr. Maureen Covelli, PhD, RN
Loretta Forlaw, PhD, RN, FACHE
Linda Gibson-Young, PhD, RN
Carolyn Hix, DNP, RN, NEA-BC
Mary Lou Sole, PhD, RN, CCNS, FAAN, FCCM
Steven Talbert, PhD, RN
Julee Waldrop, DNP, ARNP, PNP-BC, FNP-BC
Diane Wink, FNP-BC, ARNP, FAANP

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

No impact of changes on students.

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. Please delete course prefixes and numbers in this section if no teach out plan is required.

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

University of Central Florida

College of Nursing

Proposal to Revise Nurse Educator Track Curriculum

This is a proposal to revise the nurse Educator Track Curriculum by deleting one course, NGR 6714 Clinical Teaching from the plan of study. This will reduce total credits for the program from 41 to 38.

Rationale:

The Nurse Educator track in the MSN program prepares nurses for roles as educators in programs of nursing at the university, college, community college and vocational school level as well as in staff development programs at health care agencies. The Nurse Educator track in the MSN program here at UCF is designed to meet knowledge and practice competencies of a variety of organizations. Most important of these is our accreditation agency, the Collegiate Council for Nursing Education. Our graduates must also hold the educational credentials needed to sit for certification as a Nurse Educator. These same credentials will also be required by their future employers (generally other schools) since those schools must demonstrate their faculty are qualified to teach in their programs.

A revised Nurse Educator track was implemented in Fall of 2010 to reflect expanded criteria for all nurses receiving a MSN. Key components of this revision were the addition of a set of courses to increase the core clinical (nursing) knowledge and practice skills of students in this track. And, using data from a national survey of Nurse Educator MSN programs, two courses were deleted and an additional course was added to the core Nurse Educator course list.

Over the last three years, faculty completed a comprehensive analysis of content in the Nurse Educator program. Duplication of content in several courses was found with most of that duplication from a single course, NGR 6714 Clinical Teaching Strategies and the rest in the course NGR 6718 Evaluation Methods in Nursing Education. In addition, an existing course (NGR 6791 Teaching Strategies) had "room" to absorb the content in the Clinical Teaching course not currently covered because one of the large blocks of content previously in that course had been moved to another course.

The decision to delete the clinical teaching course as a required component of the Nurse Educator MSN plan of study was further supported by the findings of a national study of nurse educator curriculums published in by Drs. Judith Ruland and Jean Leuner in 2010. In their study of 201 program curriculums they found that only 34 (17%) had a separate Clinical Teaching course.

A review of other Nurse Educator Programs in the state of Florida also indicated that a Clinical Teaching Course was not a component of any of those programs.

The objectives of the MSN Nurse Educator Track remain the same since no content is being deleted.

An analysis of movement of objectives and content coverage in other Nurse Educator courses follows.

Movement of Objectives from NGR 6714 to other Nurse Educator courses

Objective in NGR 6714 Clinical Teaching Strategies	Objectives moved to or already covered in
1. Analyze the research foundation to the development, implementation and evaluation of clinical experiences for student nurses	NGR 6791 Teaching Strategies
2. Investigate historical and current theoretical literature on the clinical learning activities to determine the implications for clinical learning in the current health care system	NGR 6791 Teaching Strategies Also covered in NGR 6713 Curriculum Development and NGR 5884 Legal and Professional Behavior
3. Develop a personal philosophy of clinical teaching and learning	NGR 6791 Teaching Strategies
4. Explore the impact of setting and structure of clinical experiences on outcomes	NGR 6791 Teaching Strategies
5. Explore the impact of cultural diversity on the design and implementation of clinical experiences	NGR 6791 Teaching Strategies
6. Analyze the role of clinical education in nursing	NGR 6791 Teaching Strategies Also covered in NGR 6713 Curriculum Development
7. Design clinical practice experiences to meet specific curricular and individual clinical course objectives	NGR 6791 Teaching Strategies and NGR 6718 Evaluation for Nursing Education
8. Relate legal, regulatory and ethical issues in the design of clinical experiences	NGR 6791 Teaching Strategies Also covered in NGR 6713 Curriculum Development and NGR 5884 Legal and Professional Behavior
9. Synthesize the research on the development of clinical reasoning and decision making skills through clinical learning activities.	NGR 6791 Teaching Strategies Also covered in NGR 6713 Curriculum Development and NGR 6718 Evaluation for Nursing Education

Movement of Content from NGR 6714 to other Nurse Educator Courses

Content in NGR 6714	Moved to	Already covered in
Goals of clinical learning activities	NGR 6791	
Evidence based practice literature related to clinical learning activities		Addressed in all nurse educator courses and NGR 6813
Development of clinical reasoning and	NGR 6791	Addressed in all

problem solving skills		nurse educator courses
Professional Development in the Clinical Setting	NGR 6791	Also addressed in NGR 6713
Progression from Novice to Expert	NGR 6791	Also addressed in NGR 6718 and NGR 6713
Design of clinical practice activities	NGR 6791	
Learning objectives	NGR 6791	
Designing a learning activity	NGR 6791	
Addressing problems in clinical learning activities	NGR 6791	Also addressed in NGR 6718
Legal , Regulatory and Ethical Issues	NGR 6791	Addressed in NGR 5884 and NGR 6713
QSEN: Quality and Safety Education in Nursing	NGR 6791	Addressed in all nurse educator courses
Evaluation and documentation of outcomes (Student, site, preceptors)	Introduced in NGR 6791	Also addressed in NGR 6718
Innovative approaches to clinical education	NGR 6791	Reviewed in NGR 6713
Impact of culture on student learning and clinical experiences	NGR 6791	Addressed in all nurse educator courses

Impact on future students:

Deletion of this course may impact students in other tracks or community members seeking further education about teaching in the clinical area. They will be offered the NGR 6791 Teaching Strategies course as an alternative.

Resources:

Deletion of this course from the Nurse Educator track curriculum will conserve faculty resources.

Implementation:

The content from NGR 6714 will moved, as appropriate to NGR 6791 Teaching Strategies for Nursing Education and NGR 6718 Evaluation Methods in Nursing Education for all course offerings starting in Fall 2013. A teach-out plan will be developed to accommodate all current students still needing NGR 6714 Clinical Teaching.

Students admitted prior to August 2013 who have not yet taken NGR 6791 Teaching Strategies and NGR 6718 Evaluation Methods in Nursing Education will be given the option of moving to the new curriculum and not taking the NGR 6714 Clinical Teaching Course.

Plan of Study:

Students will continue to be admitted to a full time plan of study for the Fall term or a part time plan of study in either the Fall or Spring term.

TRACK DESCRIPTION

The Master of Science in Nursing (MSN) programs build upon the student's baccalaureate nursing education and professional experience. The Master of Science in Nursing program is accredited by the Commission on Collegiate Nursing Education (CCNE). The Nurse Educator track is delivered online with some required campus activities. It prepares nurse educators for teaching positions in colleges and universities, as well as practice settings.

[Read More ▼▲](#)

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.intl.ucf.edu. If you have any questions, please consult the International Services Center at 407-823-2337.

CURRICULUM

Total Credit Hours Required:

3841 Credit Hours Minimum beyond the Bachelor's Degree

An independent scholarly work is a requirement for the Master of Science in Nursing degree. The scholarly work consists of an evidence-based nursing project. The scholarly project that is required in NGR 6813 (completed in the final last or next to last semester of study) is an evidence-based scholarly clinical paper. The evidence-based project should reflect the latest evidence for the student's MSN track. This is a formal paper that must adhere to published guidelines in the syllabus and must be presented in a public forum.

Required Nursing Courses—18 Credit Hours

- NGR 5003 Advanced Health Assessment and Diagnostic Reasoning (2 credit hours)
- NGR 5003L Advanced Health Assessment and Diagnostic Reasoning Lab (1 credit hour)
- NGR 5141 Pathophysiological Bases for ANP (3 credit hours)
- NGR 5800 Theory for Advanced Practice Nursing (3 credit hours)
- NGR 5884 Legal and Professional Behaviors in ANP (3 credit hours)
- NGR 6801 Research Methods (3 credit hours)
- NGR 6813 Evidence-Based Nursing Practice (Scholarly Project) (3 credit hours)

Required Education Courses—203 Credit Hours

- NGR 6713 Curriculum Development in Nursing Education (3 credit hours)
- ~~NGR 6714 Clinical Teaching Strategies for Nursing (3 credit hours)~~
- NGR 6715 Application of Instructional Technology for Nursing Education (3 credit hours)
- NGR 6791 Teaching Strategies for Nurse Educators (3 credit hours)
- NGR 6718 Evaluation in Nursing Education (3 credit hours)
- NGR 6XXX Advanced Nursing Specialty (Family, Adult or Community) for Nurse Educators (3 credit hours)
- NGR 6942C Internship/Residency in Nursing Education (4 credit hours, 300 credit hours)
- NGR 6945L Clinical Specialty Practicum (Family, Adult or Community) for Nurse Education (1 credit hour, 60 clinical hours)

College of Nursing Master's Program Handbook

All master's students are required to read the College of Nursing Master's Program Handbook regarding policies for each program and for academic progression. Information about each program particularly clinical placements and forms for appeals to the Master's APG Committee are located in the handbook.

Equipment Fee

Students in the Master of Science in Nursing Program pay a \$90 equipment fee each semester that they are enrolled.

INDEPENDENT LEARNING

An independent scholarly work is a requirement for the Master of Science in Nursing degree. The scholarly work consists of an evidence-based nursing project. The scholarly project that is required in NGR 6813 (completed in the final semester of study) is an evidence-based scholarly clinical paper. The evidence-based project should reflect the latest evidence for the students MSN track. This is a formal paper that must adhere to published guidelines in the syllabus and must be presented in a public forum.

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 following application information is provided for applicants who have

completed a bachelor's degree. For application requirements for the RN to MSN option, without an undergraduate degree, please refer to the "RN to MSN Program." Applicants with a non-nursing bachelor's degree are required to take upper-division nursing courses that are prerequisites for graduate study in nursing.

Students are admitted to the programs in fall and spring semesters. ~~Nurse Educator track students are also admitted in the summer.~~ To study full-time, applicants to the nurse educator track should apply for fall admission-. However, additional electives will be needed in some semesters. Part-time plans of study are available for both fall and spring admission cycles.

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.
- BSN degree from an accredited institution.*
- Undergraduate Statistics course.
- Florida license required for all students who will be taking clinical and practice courses in Florida health care agencies and institutions. For those students at a distance, a license is required in the state or country in which they practice.
- Address the following 3 items in a written essay. Total word count for all (not each) answers should be 500 words or less, double spaced, 12 point Times New Roman font, and 1 inch margins:
 - Describe how your professional experiences have prepared you for future education in the role which is the focus of your desired track.
 - Describe your plans to alter your work, professional and/ or personal obligations in order to have the time needed for graduate course and clinical practice work.
 - Identify one significant contemporary issue/ problem in the US Health care system and explore how members of the nursing profession can help address that issue or solve that problem.
- Curriculum Vitae which reflects prior education, recent clinical accomplishments, any recent scholarly work (publications and presentations), awards, additional certifications and activities with professional organizations. For recent graduates this can include accomplishments as a student.
- Two professional recommendations describing your ability to be successful in an MSN program. Include at least one clinical reference preferably from an Advanced Practice Nurse/Supervisor and one academic reference preferably from a nursing faculty member from a graduate program

evaluating potential for graduate study.

- 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.

*For Students with a Bachelor's degree in a discipline other than nursing, please contact the advisement office at gradnurse@ucf.edu or 407-823-2744 for additional options.

Admission to the program is competitive, based on evaluation of the applicant's abilities, past performance, recommendations, VECHS/FDLE/FBI finger printing, certified background check, drug testing and the match of UCF's master's programs with career goals. The College of Nursing accepts the most qualified students. Since enrollment is limited, not all students who apply may be accepted, even if minimum requirements are met.

Students may take classes as a nursing nondegree-seeking, postbaccalaureate student on a space-available basis. Students must designate on their application that they are applying to the College of Nursing in order to facilitate processing of files. Successful completion of postbaccalaureate courses does not guarantee admission to the graduate program. Students may only take nonclinical courses. Prior to applying as a nondegree student, please contact the main nursing advising office for deadlines and nondegree options at gradnurse@ucf.edu.

Application Deadlines

Nurse Educator	Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Mar 15	Oct 1	-
International Applicants	Jan 15	Jan 15	Jul 1	-

International Transfer Applicants	Jan 15	Mar 1	Sep 1	-
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FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see Funding for Graduate School, 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 Fellowships, which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.



UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF GRADUATE STUDIES

Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1** of each year. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use Track Changes in Word).

College/Unit(s) Submitting Proposal: COHPA/School of Public Administration

Proposed Effective Term/Year: Fall 2013

Unit(s) Housing Program: School of Public Administration

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

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

The Graduate Certificate in Fundraising is an 18-credit online certificate that provides an overview of the core concepts in fundraising and development for those interested in a career as a professional fundraiser. The Certificate is intended to meet the needs of individuals seeking a focused experience in order to prepare for or advance their careers in fundraising and development. It may be appropriate for students who seek to expand their knowledge, but who do not wish to commit to a master's degree program.

Under certain circumstances, credit earned in the certificate program also may be applied toward the Master of Nonprofit Management degree. However, admission to the MNM degree program has separate requirements from those of the certificate program and students considering going on for a degree should consult with a faculty advisor early in their certificate program.

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☒ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Standard admission deadlines

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

NA - not a track

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Stephanie Krick, 407-823-0661, HPAIL, Rm 232.

http://www2.cohpa.ucf.edu/pubadm/



Page 2 of UCF Program Recommendation Form

Please check one: this action affects a: ☐ Program ☐ Track ☒ Certificate

Please check one: this action is a(n):

☒ Addition. Please proceed to Part A.

☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

☐ Inactivation

☐ Temporary Suspension of Admissions. Give Length of Suspension:

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Department Chair: <u>Mary J. Legally</u>	Date: <u>11-19-12</u>
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	College Curriculum Committee Chair: <u>[Signature]</u>	Date: <u>11/27/12</u>
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	College Dean: <u>[Signature]</u>	Date: <u>11/9/13</u>
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Chair or GSC: <u>[Signature]</u>	Date: _____
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Dean, College of Graduate Studies: _____	Date: _____

APPROVAL

Provost and Vice President for Academic Affairs: _____ Date: _____

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

Department(s); College; Registrar; Associate Registrar; Institutional Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

There is a demand for knowledge and a greater understanding of development and fundraising in nonprofit organizations. The Graduate Certificate in Fundraising will provide an opportunity for students interested in obtaining a specialization in the field of fundraising and development, but do not desire a graduate degree in Nonprofit Management. These could be students that are enrolled in other academic fields or those that are working in the field that already have a graduate or undergraduate degree in another area. The certificate will not adversely affect the MNM Program. Admission to the Certificate program will be limited and based on the availability.

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.)

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 provide a list of students if possible:

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

Name Change

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

Page 5 of UCF Program Recommendation Form

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

The faculty that are currently teaching in the current MNM Program will participate.
Therefore, no changes in faculty credentials.

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

No impact will be made to current students.

Page 6 of UCF Program Recommendation Form

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

The courses are within the School of Public Administration and there is no conflict.

If an addition, 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.

Intended for students seeking a focused experience in order to prepare for or advance their careers in fundraising and development. This certificate is appropriate for students who seek to expand their knowledge, but who do not wish to commit to a master's degree program. Students likely to enroll may be from a related academic or fundraising profession with the desire to strengthen their skills. There is no licensure or other certificate that depends upon this education.

	Year 1	Year 2	Year 3
Headcount	60	60	60
SCHs	1080	1080	1080

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

The certificate's focus is to equip students with needed skills and techniques for upward-mobility in the fundraising and development field. Those completing the certificate would be prepared for leadership and upper management positions in nonprofit organizations. Possible position titles are: Director of Development, Director of Special Events, Executive Director, or Development Officer, etc.

Part A - Continued

If an addition or there are substantial **REVISIONS** to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1	0	N/A	0	0	N/A
Year 2	0	N/A	0	0	N/A
Year 3	0	N/A	0	0	N/A

Page 7 of UCF Program Recommendation Form

Checklist of items to be provided:

- ☒ **Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)**
- ☐ **Attach all appropriate course action requests that will be necessary to implement the changes. (required)**
- ☐ **Emails showing consultation with other units. (if applicable)**
- ☐ **If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.**
- ☐ **If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.**

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. Please delete course prefixes and numbers in this section if no teach out plan is required.

Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012

Checklist of items to be provided:

- ☐ **Attach all appropriate course action requests that will be necessary to implement the changes. (required)**
- ☐ **E-mails showing consultation with other units. (if applicable)**

Fundraising Certificate

College : [Health and Public Affairs](#) Degree : CRT

Department : [School of Public Administration](#) Option : N/A

Program Websites : <http://www2.cohpa.ucf.edu/pubadm/>

PROGRAM DESCRIPTION

The Graduate Certificate in Fundraising is a 18-credit online certificate that provides an overview of the core concepts in fundraising and development for those interested in a career as a professional fundraiser. The Certificate is intended to meet the needs of individuals seeking a focused experience in order to prepare for or advance their careers in fundraising and development. It is appropriate for students who seek to expand their knowledge, but who do not wish to commit to a master's degree program.

Credit earned in the certificate program may be applied toward the Master of Nonprofit Management (MNM) degree. However, admission to the MNM degree program has separate requirements from those of the certificate program and students considering continuing into the master's degree should consult with a faculty advisor early in their certificate program. The Graduate Certificate in Fundraising requires that students complete 18 credit hours. Students must maintain at least a 3.0 grade point average in order to be awarded the Graduate Certificate. The Certificate must be completed within 3 years.

CURRICULUM

Total Credit Hours Required:

18 Credit Hours Minimum beyond the Bachelor's Degree

Required Courses—12 Credit Hours

- PAD 5146 Nonprofit Resource Development (3 credit hours)
- PAD 6142 Nonprofit Organizations (3 credit hours)
- PAD XXXX Ethics and Governance (3 credit hours) in Philanthropy
- PAD XXXX Fundraising as a Profession (3 credit hours)

Elective Courses—6 Credit Hours

Select two courses from the following list:

- PAD 5850 Grants and Contract Management (3 credit hours)
- PAD 6xxx Philanthropy, Fundraising, and Social Entrepreneurship (3 credit hours)
- PAD 6208 Nonprofit Financial Management (3 credit hours)
- PAD 6335 Strategic Planning (3 credit hours)
- PAD 6946 Internship (3 credit hours)

Application Requirements

An application to the graduate certificate program and official transcripts must be submitted. Applicants must [apply online](#). Please submit all requested material by the established deadline(s). Admission is open to those with a bachelor's degree from a regionally accredited institution with a GPA of 2.5 or above. Applications must include official transcripts, a resume and statement of interest. Employment in the field of research administration is preferred. Admission to this certificate program is limited. Please refer to the specific MNM program website for tuition rates. The University of Central Florida does not accept State Employee Waivers for this certificate program. Due to restrictive state regulations,

UCF is not permitted to provide online courses or instruction to students in the following six states: Alabama, Arkansas, Iowa, Maryland, Massachusetts, or Minnesota. If you reside in one of these six states; you may not be permitted to enroll in or be admitted to a UCF online program. Please contact your state's higher education regulation authorities or a UCF program advisor for more details.

Application Deadlines

Research Administration Certificate	Fall Priority	Fall	Spring	Summer
Domestic Applicants	-	Jul 15	Dec 1	
International Applicants	-	-	-	-
International Transfer Applicants	-	-	-	-

Contact Info

Graduate Program

Stephanie Krick, PhD

Instructor

stephanie.krick@ucf.edu

Telephone: 407-823-2604

HPA II - Suite 238

Mary Ann Feldheim PhD

Associate Professor

mfeldhei@ucf.edu

Telephone: 407-823-2604

Health and Public Affairs II 238

Graduate Admissions

Admissions Counselor



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

Name Change

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

When is the name change effective? Please note: A 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 requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

--

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

--

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

TRACK DESCRIPTION

The Thermofluid Aerodynamics Systems Design and Engineering track in the Aerospace Engineering MSAE program is designed to prepare students for careers as engineers in aerospace.

[Read More ▼▲](#)

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.intl.ucf.edu. If you have any questions, please consult the International Services Center at 407-823-2337.

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

All students must identify an adviser and file an official degree program of study prior to the completion of 9 credit hours of study. The program of study must be approved by the department and therefore students should consult with the MMAE Graduate Director for assistance in filling out their program of study. Both thesis and nonthesis options require 30 credit hours of courses and at least half of the credit hours in the program of study must be at the 6000 level.

A student with an undergraduate degree outside of the selected departmental discipline may be required to satisfy an articulation program. Substitutions to the program of study must meet with the approval of the adviser and the department.

Prerequisites (or equivalent)

- MAP 2302 Differential Equations
- EML 3034C Modeling Methods in Mechanical and Aerospace Engineering
- EAS 4134 High-Speed Aerodynamics
- EAS 4300 Aerothermodynamics of Propulsion Systems or EML 4703 Fluid Mechanics II
- EAS 4105 Flight Mechanics
- EML 4142 Heat Transfer

Required Courses—12 Credit Hours

- EML 5060 Mathematical Methods in Mechanical, Materials and Aerospace Engineering (3 credit hours)
- EML 5152 Intermediate Heat Transfer (3 credit hours)
- EML 5713 Intermediate Fluid Mechanics (3 credit hours)

Select one of the following courses:

- EML 5237 Intermediate Mechanics of Materials (3 credit hours)
- EML 5271 Intermediate Dynamics (3 credit hours)
- EML 5311 System Control (3 credit hours)

Elective Courses—12 Credit Hours

All students, both thesis and nonthesis, must complete at least 12 hours of electives from the list below after conferring with their adviser.

- EAS 5123 Intermediate Aerodynamics (3 credit hours)
- EAS 6185 Turbulent Flow (3 credit hours)
- EAS 5315 Rocket Propulsion (3 credit hours)
- EML 5713 Intermediate Fluid Mechanics (3 credit hours)
- EML 6131 Combustion Phenomena (3 credit hours)
- EML 6712 Mechanics of Viscous Flow (3 credit hours)
- EML 5402 Turbomachinery (3 credit hours)
- EML 5105 Gas Kinetics and Statistical Thermodynamics (3 credit hours)
- EML 6155 Convection Heat Transfer (3 credit hours)
- EML 6725 Computational Fluid Dynamics and Heat Transfer I (3 credit hours)
- EAS 5302 Direct Energy Conversion (3 credit hours)
- EAS 6807C Aerospace Measurements Instrumentation (3 credit hours)
- EML 6124 Two-Phase Flow (3 credit hours)
- EML 6726 Computational Fluid Dynamics and Heat Transfer II (3 credit hours)
- EML 6154 Conduction Heat Transfer (3 credit hours)
- EML 5713 Intermediate Fluid Mechanics (3 credit hours)
- EML 6157 Radiation Heat Transfer (3 credit hours)
- EAS 5123 Intermediate Aerodynamics (3 credit hours)
- EML 6211 Continuum Mechanics (3 credit hours)
- EML 5237 Intermediate Mechanics of Materials (3 credit hours)
- EML 5532C Computer-Aided Design for Manufacture (3 credit hours)
- EML 5546 Engineering Design with Composite Materials (3 credit hours)
- EML 6547 Engineering Fracture Mechanics in Design (3 credit hours)

Thesis Option—6 Credit Hours

The thesis option requires 6 credit hours of thesis in addition to the required and elective courses listed above. A student pursuing the thesis program may not register for thesis credit hours until an advisory committee has been appointed and the committee has reviewed the program of study and the proposed thesis topic

- EAS 6971 Thesis (6 credit hours)

Additionally, students pursuing the thesis option must enroll in the following course:

- EML 5XXX: Graduate Seminar (0 credit hours)

Students must register for the course a minimum of twice (2) during their graduate career in the master's program (thesis option). The students must also complete the course with a satisfactory (S) grade in both attempts. If the student does not complete the course with a grade of satisfactory, the student will be asked to repeat the course to meet program requirements.

Nonthesis Option—6 Credit Hours

The nonthesis option is primarily designed to meet the needs of part-time students and requires one additional elective and EML 6085 Research Methods in MMAE (or XXX 6918 Directed Research, with approval)* as part of their 30-credit-hour course requirement.

- Elective (3 credit hours)
- EML 6085 Research Methods in MMAE (3 credit hours)

* For students who are not on campus and upon prior approval from the graduate coordinator, XXX 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of XXX 6918 is approved, a letter must be provided by the member of the faculty supervising the directed research.

EML 6085 (or XXX 6918) fulfills the independent learning requirement for nonthesis students.

INDEPENDENT LEARNING

The independent learning requirement is met by successful completion of a master's thesis for the thesis option. The nonthesis option independent learning experience is provided by the required course EML 6085 Research Methods in MMAE (3 credit hours). For students who are not on campus and upon prior approval from the graduate coordinator, XXX 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of XXX 6918 is approved, a letter must be provided by the member of the faculty supervising the directed research certifying 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.

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.
- Bachelor's degree in Aerospace Engineering or closely related discipline.
- Résumé.
- Statement of educational, research, and professional career objectives.
- 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.

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 MMAE graduate program director for further information.

Application Deadlines

Thermofluid Aerodynamic Systems Design and Engineering	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	-

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

TRACK DESCRIPTION

The Master of Science in Space Systems Design and Engineering (MSAE) is designed to prepare students for careers as engineers in aerospace.

[Read More ▼▲](#)

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

All students must identify an adviser and file an official degree program of study prior to the completion of 9 credit hours of study. The program of study must be approved by the department and therefore students should consult with the MMAE Graduate Director for assistance in filling out their program of study.

A student with an undergraduate degree outside of the selected departmental discipline may also be required to satisfy an articulation program. Substitutions to the program of study must meet with the approval of the adviser and the department.

Prerequisites (or equivalent)

- MAP 2302 Differential Equations
- EML 3034C Modeling Methods in Mechanical and Aerospace Engineering
- EAS 4134 High-Speed Aerodynamics
- EAS 4105 Flight Mechanics or EAS 4400 Spacecraft Attitude Dynamics
- EAS 4200 Flight Structures or EAS 4210 Space Structural Dynamics

Required Courses—12 Credit Hours

- EML 5060 Mathematical Methods (3 credit hours)
- EML 5271 Intermediate Dynamics (3 credit hours)
- EML 5311 System Control (3 credit hours)

Select one of the following courses:

- EML 5152 Intermediate Heat Transfer (3 credit hours)
- EML 5237 Intermediate Mechanics of Materials (3 credit hours)
- EML 5713 Intermediate Fluid Mechanics (3 credit hours)

Elective Courses—12 Credit Hours

All students, both thesis and nonthesis, must complete at least 12 credit hours of electives. The following list are suggested electives to be taken in the program of study.

- EAS 6403C Attitude Determination and Control (3 credit hours)
- EAS 6415 Guidance, Navigation and Control (3 credit hours)
- EEL 6616 Adaptive Control (3 credit hours)
- EEL 6621 Nonlinear Control Systems (3 credit hours)
- EML 5152 Intermediate Heat Transfer (3 credit hours)
- EML 5713 Intermediate Fluid Mechanics (3 credit hours)
- EML 6211 Continuum Mechanics (3 credit hours)
- EML 6233 Fundamentals of Fatigue Analysis (3 credit hours)
- EML 5237 Intermediate Mechanics of Materials (3 credit hours)
- EML 6155 Convection Heat Transfer (3 credit hours)
- EML 6157 Radiation Heat Transfer (3 credit hours)
- EAS 6808 Space Environment and Payload Instrumentation (3 credit hours)
- EEL 5432 Satellite Remote Sensing (3 credit hours)
- EEL 5542 Random Processes I (3 credit hours)
- EEL 5881 Software Engineering I (3 credit hours)

Thesis Option—6 Credit Hours

The thesis option requires 30 credit hours, at least half of which must be at the 6000 level and will include 6 credit hours of thesis credit. A student pursuing the thesis program may not register for thesis credit hours until an advisory committee has been appointed and the committee has reviewed the program of study and the proposed thesis topic.

- EAS 6971 Thesis (6 credit hours)

Additionally, students pursuing the thesis option must enroll in the following course:

- EML 5XXX: Graduate Seminar (0 credit hours)

Students must register for the course a minimum of twice (2) during their graduate career in the master's program (thesis option). The students must also complete the course with a satisfactory (S) grade in both attempts. If the student does not complete the course with a grade of satisfactory, the student will be asked to repeat the course to meet program requirements.

Nonthesis Option—6 Credit Hours

The nonthesis option is primarily designed to meet the needs of part-time students and requires 30 credit hours of course work, at least one-half of which must be at the 6000 level. Students pursuing the nonthesis option are required to take one additional elective and take either EML 6085 Research Methods in MMAE (or XXX 6918 Directed Research, with approval)* as part of their 30-credit-hour course requirement.

- Elective (3 credit hours)

- EML 6085 Research Methods in MMAE (3 credit hours)

*For students who are not on campus and upon prior approval from the graduate coordinator, XXX 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of XXX 6918 is approved, a letter must be provided by the member of the faculty supervising the directed research certifying independent learning.

EML 6085 and XXX 6918 fulfill the independent learning requirement and either course is required for nonthesis students.

INDEPENDENT LEARNING

The independent learning requirement is met by successful completion of a master's thesis for the thesis option. The nonthesis option independent learning experience is provided by the required course, EML 6085 Research Methods in MMAE (3 credit hours). For students who are not on campus and upon prior approval from the graduate coordinator, XXX 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of XXX 6918 is approved, a letter must be provided by the member of the faculty supervising the directed research certifying 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.

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.
- Bachelor's degree in Aerospace Engineering or closely related discipline.
- Résumé.

- Statement of educational, research, and professional career objectives.
- 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.

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 MMAE graduate program director for further information.

Application Deadlines

Space Systems Design and Engineering	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	-

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

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:

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)



Memorandum

To: Graduate Program Curriculum Council
From: Dr. Alain Kassab, Graduate Coordinator
Date: November 19, 2012
Re: Aerospace Engineering, Accelerated B.S. to M.S. Program

The Aerospace Engineering Master's Program would like to revise our program and the associated tracks (i.e. Accelerated B.S. to M.S.) to add EML 5XXX: Graduate Seminar Course (0 credit hours). The Mechanical and Aerospace Engineering department believes that this course will provide our students with additional training in the art of professional presentation of research results and development as well as provide a forum for the interchange of ideas amongst our graduate students and our faculty.

If you have any additional questions or concerns please do not hesitate to contact me at (407) 823-5778. Thank you and have a great day.

B.S. to M.S. Accelerated Track – Aerospace Engineering

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

The BSAE is awarded after completion of 128 total undergraduate student credit hours including 71 hours of engineering courses and all other university requirements, and the MSAE is awarded upon completion of the master's program. Courses designated in General Education Program and Common Program Prerequisites are usually completed in the first 60 hours (see engineering major requirements in the Undergraduate Catalog).

Up to 12 credit hours of approved 5000- and 6000-level courses of grades "B" (3.0) or better may be counted toward the BS and MS degrees. Additional notes on the Accelerated Undergraduate and Graduate Program in Aerospace Engineering:

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must earn at least a "B" (3.0) in each undergraduate and graduate engineering course for them to be counted toward the major.

Undergraduate Requirements

Please see the current edition of the Undergraduate Catalog and the College of Engineering website listed above for additional information about academics and accelerated programs.

Graduate Requirements

For thesis option students, at least 18 credit hours beyond the 12 credit hours counted toward the undergraduate degree are required and must include 6 credit hours of thesis (EAS 6971).

Additionally, students pursuing the thesis option must all enroll in the following course:

- EML 5XXX: Graduate Seminar (0 credit hours)

Students must register for the course a minimum of twice (2) during their graduate career in the master's program (thesis option). The students must also complete the course with a satisfactory (S) grade in both attempts. If the student does not complete the course with a grade of satisfactory, the student will be asked to repeat the course to meet program requirements.

For the nonthesis option, the 18 credit hours need to include either EML 6085 Research Methods in MMAE (3 credit hours) or EML 6918 Directed Research (3 credit hours). The remaining credit hours can be selected from courses from other tracks.

Equipment Fee

Students in the Aerospace Engineering MSAE program pay a \$90 equipment fee each semester that they are enrolled.

INDEPENDENT LEARNING

The Independent Learning Requirement is met by successful completion of a master's thesis or EML 6085 Research Methods in MMAE. The nonthesis option independent learning experience is provided by the required course EML 6085 Research Methods in MMAE (3 credit hours). For students who are not on campus and upon prior approval from the graduate coordinator, EAS 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. In the case substitution EAS 6918 is approved, a letter must be provided by the member of the faculty supervising the directed research certifying independent learning.



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

Name Change

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

When is the name change effective? Please note: A 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 requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

--

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

--

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

TRACK DESCRIPTION

The Master of Science degree in Mechanical Engineering is primarily intended for students with a bachelor's degree in Mechanical or Aerospace engineering or a closely related discipline obtained from a recognized accredited institution. The program offers Mechanical Systems, Thermofluids and Accelerated BS to MS tracks.

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.intl.ucf.edu. If you have any questions, please consult the International Services Center at 407-823-2337.

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

All students must identify an adviser and file an official degree program of study prior to the completion of 9 credit hours of study. Students should consult with the MMAE Graduate Program Director for assistance in completing the program of study form. The program of study must have departmental approval and must include at least 24 credit hours of formal course work, exclusive of thesis and research. Furthermore, at least half of the credit hours must be from courses at the 6000 level. Substitutions to the program of study must meet with the approval of the adviser and the department.

A student with an undergraduate degree outside of the selected departmental discipline may be required to satisfy an articulation program and take additional prerequisites. More information is available from the MMAE departmental website listed above.

Prerequisites (or equivalent)

- Differential Equations (MAP 2302)
- Modeling Methods in Mechanical and Aerospace Engineering (EML 3034C)
- Machine Design and Analysis (EML 3500) or Flight and Structures (EAS 4200)
- Vibration Analysis (EML 4220) or Space Structural Dynamics (EAS 4210)
- Experimental Techniques in Mechanics and Materials (EMA 3012C) or Solid Mechanics Lab (EGM 3601L) or Mechanical Systems Experimental Techniques (EML 4221C)
- Feedback Control (EML 4312C)

Required Courses—12 Credit Hours

- EML 5060 Mathematical Methods in Mechanical, Materials, and Aerospace Engineering (3 credit hours)
- EML 5237 Intermediate Mechanics of Materials (3 credit hours)

- EML 5271 Intermediate Dynamics (3 credit hours)
- EML 6211 Continuum Mechanics (3 credit hours)

Elective Courses—12 Credit Hours

All students, both thesis and nonthesis, must take 12 credit hours of electives from the following list or from courses from other tracks. Electives should be chosen in consultation with the student's adviser.

- EML 6305C Experimental Mechanics (3 credit hours)
- EML 5311 System Control (3 credit hours)
- EML 5546 Engineering Design with Composite Materials (3 credit hours)
- EML 6068 Finite Elements in Mechanical and Aerospace Engineering II (3 credit hours)
- EML 6062 Boundary Element Methods in Engineering (3 credit hours)
- EML 6227 Nonlinear Vibration (3 credit hours)
- EML 5026C Advanced Engineering Design Practice (3 credit hours)
- EML 5066 Computational Methods in Mechanical, Materials and Aerospace Engineering (3 credit hours)
- EML 5228C Modal Analysis (3 credit hours)
- EML 5532C Computer-Aided Design for Manufacture (3 credit hours)
- EML 5572 Probabilistic Methods in Mechanical Design (3 credit hours)
- EML 6808 Analysis and Control of Robot Manipulators (3 credit hours)
- EML 6226 Analytical Dynamics (3 credit hours)
- EML 6233 Fundamentals of Fatigue Analysis (3 credit hours)
- EML 6547 Engineering Fracture Mechanics in Design (3 credit hours)

Thesis Option—6 Credit Hours

Thesis students must complete an independent research project, and write and successfully defend a thesis describing the project. Students may not register for thesis credit hours until an advisory committee has been appointed and the committee has reviewed the program of study and the proposed thesis topic.

- EML 6971 Thesis (6 credit hours)

The College of Engineering and Computer Science requires that all thesis defense announcements be approved by the student's adviser and posted on the college's [website](#) and on the [Events Calendar](#) at the College of Graduate Studies website at least two weeks before the defense date.

Additionally, students pursuing the thesis option must all enroll in the following course:

- EML 5XXX: Graduate Seminar (0 credit hours)

Students must register for the course a minimum of twice (2) during their graduate career in the master's program (thesis option). The students must also complete the course with a satisfactory

(S) grade in both attempts. If the student does not complete the course with a grade of satisfactory, the student will be asked to repeat the course to meet program requirements.

Nonthesis Option—6 Credit Hours

Nonthesis students are required to take EML 6085 Research Methods in MMAE (or EML 6918 Directed Research, with approval) as part of their 30-credit-hour course requirement. In addition, nonthesis students must take another elective beyond the 12 credit hours of electives described above.

- EML 6085 Research Methods in MMAE (3 credit hours)*
- Elective (3 credit hours)

* For students who are not on campus and with prior approval from the graduate program director, EML 6918, Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of EML 6918 is approved, a letter must be provided by the faculty member agreeing to supervise the directed research and certifying that the experience includes independent learning.

Equipment Fee

Students in the Mechanical Engineering MSME program pay a \$90 equipment fee each semester that they are enrolled.

INDEPENDENT LEARNING

The Independent Learning requirement is met by successful completion of a master's thesis for the thesis option. The independent learning experience in the nonthesis option is provided by the required course, EML 6085 Research Methods in MMAE (3 credit hours). For students who are not on campus and with prior approval from the graduate program director, EML 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of EML 6918 is approved, a letter must be provided by the faculty member agreeing to supervise the directed research and certifying that the experience includes 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.

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.
- A bachelor's degree in Mechanical or Aerospace Engineering, or a closely related discipline.
- Résumé.
- Statement of educational, research, and professional career objectives.
- 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.

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. Applicants should contact the MMAE graduate program director for more information.

Application Deadlines

Mechanical Systems	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	-

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

TRACK DESCRIPTION

The Master of Science in Mechanical Engineering is primarily intended for students with a bachelor's degree in Mechanical or Aerospace engineering or a closely related discipline obtained from a recognized accredited institution. The program offers Mechanical Systems, Thermofluids and Accelerated BS to MS tracks.

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.intl.ucf.edu. If you have any questions, please consult the International Services Center at 407-823-2337.

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

All students must identify an adviser and file an official degree program of study prior to the completion of 9 credit hours of study. The program of study must have departmental approval and students should consult with the MMAE Graduate Program Director for assistance in completing their program of study form. At least 24 hours of the program of study must include formal course work, exclusive of thesis and research, and at least half of the credit hours must be from courses at the 6000 level. Substitutions to the program of study must meet with the approval of the adviser and the department.

A student with an undergraduate degree outside of the selected departmental discipline may be required to satisfy an articulation program and take additional prerequisites. More information is available from the MMAE departmental website listed above.

Prerequisites (or equivalent)

- Differential Equations (MAP 2302)
- Modeling Methods in Mechanical and Aerospace Engineering (EML 3034C)
- Thermodynamics of Mechanical Systems (EML 3101)
- Measurements in Thermal Systems (EML 4304C)
- Fluid Mechanics II (EML 4703) or Propulsion Systems (EAS 4300)
- Heat Transfer (EML 4142)

Required Courses—12 Credit Hours

- EML 5060 Mathematical Methods in Mechanical, Materials and Aerospace Engineering (3 credit hours)
- EML 5152 Intermediate Heat Transfer (3 credit hours)
- EML 5713 Intermediate Fluid Mechanics (3 credit hours)

- EML 6104 Classical Thermodynamics (3 credit hours)

Elective Courses—12 Credit Hours

All students, both thesis and nonthesis, must take 12 credit hours of electives from the following list or from courses from other MMAE tracks. Up to 6 credit hours of electives could also be from other graduate courses offered in the College of Engineering and Computer Science. Students should confer with their advisers when choosing electives.

- EML 5402 Turbomachinery (3 credit hours)
- EML 6155 Convection Heat Transfer (3 credit hours)
- EML 6157 Radiation Heat Transfer (3 credit hours)
- EML 6725 Computational Fluid Dynamics and Heat Transfer I (3 credit hours)
- EML 6131 Combustion Phenomena (3 credit hours)
- EML 6154 Conduction Heat Transfer (3 credit hours)
- EAS 6185 Turbulent Flow (3 credit hours)
- EML 6712 Viscous Flow (3 credit hours)
- EAS 6138 Advanced Gas Dynamics (3 credit hours)
- EAS 5302 Direct Energy Conversion (3 credit hours)
- EAS 5315 Rocket Propulsion (3 credit hours)
- EML 5026C Advanced Engineering Design Practice (3 credit hours)
- EML 5066 Computational Methods in Mechanical, Materials and Aerospace Engineering (3 credit hours)
- EML 5105 Gas Kinetics and Statistical Thermodynamics (3 credit hours)
- EML 6062 Boundary Element Methods in Engineering (3 credit hours)
- EML 6124 Two-Phase Flow (3 credit hours)
- EML 6158 Gaseous Radiation Heat Transfer (3 credit hours)
- EML 6144 Boiling and Condensation Heat Transfer (3 credit hours)
- EML 6726 Computational Fluid Dynamics and Heat Transfer II (3 credit hours)

Thesis Option—6 Credit Hours

Thesis students must complete an independent research project, and write and defend a thesis describing the project. Students may not register for thesis credit hours until an advisory committee has been appointed and the committee has reviewed the program of study and the proposed thesis topic.

- EML 6971 Thesis (6 credit hours minimum)

The College of Engineering and Computer Science requires that all thesis defense announcements be approved by the student's adviser and posted on the CECS [website](#) and on the [Events Calendar](#) at the College of Graduate Studies website at least two weeks before the defense date.

Additionally, students pursuing the thesis option must enroll in the following course:

- EML 5XXX: Graduate Seminar (0 credit hours)

Students must register for the course a minimum of twice (2) during their graduate career in the master's program (thesis option). The students must also complete the course with a satisfactory (S) grade in both attempts. If the student does not complete the course with a grade of satisfactory, the student will be asked to repeat the course to meet program requirements.

Nonthesis Option—6 Credit Hours

Nonthesis students must take EML 6085 Research Methods in MMAE (or EML 6918 Directed Research, with approval) as part of their 30-credit-hour course requirement. Furthermore, they must take an additional elective beyond the 12 credit hours of electives described above.

- EML 6085 Research Methods in MMAE (3 credit hours)*
- Elective (3 credit hours)

* For students who are not on campus and with prior approval from the graduate program director, EML 6918, Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of EML 6918 is approved, a letter must be provided by the faculty member agreeing to supervise the directed research and certifying that the experience contains independent learning.

Equipment Fee

Students in the Mechanical Engineering MSME program pay a \$90 equipment fee each semester that they are enrolled.

INDEPENDENT LEARNING

The Independent Learning requirement is met by successful completion of a master's thesis for the thesis option. The independent learning experience in the nonthesis option is provided by the required course, EML 6085 Research Methods in MMAE (3 credit hours). For students who are not on campus and with prior approval from the graduate program director, EML 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. If the substitution of EML 6918 is approved, a letter must be provided by the faculty member agreeing to supervise the directed research and certifying that the experience includes 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.

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.
- A bachelor's degree in Mechanical or Aerospace Engineering, or a closely related discipline.
- Résumé.
- Statement of educational, research, and professional career objectives.
- 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.

Faculty members may choose to conduct face-to-face or telephone interviews before accepting applicants into their research program.

Additional courses may be required to correct deficiencies. Applicants should contact the MMAE graduate program director for more information.

Application Deadlines

Thermofluids	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	-

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

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:

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)



Memorandum

To: Graduate Program Curriculum Council
From: Dr. Alain Kassab, Graduate Coordinator
Date: November 19, 2012
Re: Mechanical Engineering, Accelerated B.S. to M.S. Program

The Mechanical Engineering Accelerated Master's Program would like to revise our program and the associated tracks (i.e. Accelerated B.S. to M.S.) to add EML 5XXX: Graduate Seminar Course (0 credit hours). The Mechanical and Aerospace Engineering department believes that this course will provide our students with additional training in the art of professional presentation of research results and development as well as provide a forum for the interchange of ideas amongst our graduate students and our faculty.

If you have any additional questions or concerns please do not hesitate to contact me at (407) 823-5778. Thank you and have a great day.

Accelerated B.S. to M.S. – Mechanical Engineering

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

The BSME is awarded after completing all university requirements, including 128 total credit hours and 71 credit hours of engineering courses. The MSME is awarded upon completion of the master's program. Courses designated in General Education Program and Common Program Prerequisites are usually completed in the first 60 hours (see engineering major requirements in the Undergraduate Catalog).

Up to 12 credit hours of approved graduate level courses of grades "B" (3.0) or better may be counted towards the BS and MS degrees. Additional notes on the Accelerated Undergraduate and Graduate Program in Mechanical Engineering are as follows:

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must earn at least a "B" (3.0) in each undergraduate and graduate engineering course for them to be counted toward the major.

Undergraduate Requirements

Please see the current edition of the Undergraduate Catalog for additional information about this program.

Graduate Requirements

The Mechanical Engineering program requires a minimum of 30 credit hours beyond the bachelor's degree, and offers thesis and nonthesis options in two tracks, Mechanical Systems and Thermofluids. At least 24 credit hours of course work must be taken, exclusive of thesis and research. The thesis options require 24 credit hours of formal courses, and six credit hours of thesis.

Additionally, students pursuing the thesis option must all enroll in the following course:

- **EML 5XXX: Graduate Seminar (0 credit hours)**

Students must register for the course a minimum of twice (2) during their graduate career in the master's program (thesis option). The students must also complete the course with a satisfactory (S) grade in both attempts. If the student does not complete the course with a grade of satisfactory, the student will be asked to repeat the course to meet program requirements.

The nonthesis options require 30 credit hours of courses, including completion of EML 6085 Research Methods in MMAE. For students who are not on campus and upon prior approval from the graduate coordinator, EML 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. In the case substitution EML 6918 is approved, a letter must be provided by the member of the faculty supervising the directed research.

Equipment Fee

Students in the Mechanical Engineering MSME program pay a \$90 equipment fee each semester that they are enrolled.

INDEPENDENT LEARNING

The Independent Learning requirement is met by successful completion of a master's thesis for the thesis option. The nonthesis option independent learning experience is provided by the required course, EML 6085 Research Methods in MMAE (3 credit hours). For students who are not on campus and upon prior approval from the graduate coordinator, EML 6918 Directed Research (3 credit hours) may be substituted as the student's independent learning experience. In the case substitution EML 6918 is approved, a letter must be provided by the member of the faculty supervising the directed research certifying independent learning.



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

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:

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

PROGRAM DESCRIPTION

The Mechanical Engineering PhD program prepares students with an in depth study and emphasis on research in Aerospace Systems, Mechanical Systems, or Thermofluids.

[Read More ▼▲](#)

CURRICULUM

The Mechanical Engineering PhD program requires a minimum of 72 credit hours beyond a bachelor's degree. This program requires 15 dissertation 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 of independent study (6908) with an approved Program of Study. At least 27 hours of program must consist of formal coursework, exclusive of independent study. The rest of the hours can be chosen by the student in consultation with the adviser and the dissertation committee and with the approval of the graduate program director. Details about this program are located in the [Mechanical Engineering PhD Handbook](#).

Total Credit Hours Required:

72 Credit Hours Minimum beyond the Bachelor's Degree

Students entering the program with a master's degree are required to complete 42 credit hours minimum, of which 27 credit hours minimum must be formal course work, exclusive of independent study and 15 credit hours minimum of dissertation research (XXX 7980). No more than 12 credit hours combined of directed (XXX 6918) or doctoral research (XXX 7919) and/or independent study (XXX 6908) may be taken toward fulfilling the degree program of study course work requirements.

The rest of the hours in the PhD program can be chosen by the student in consultation with the adviser and the dissertation committee and with the approval of the Graduate Director. These credit hours may include doctoral directed research hours or doctoral dissertation hours.

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 MMAE 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 to (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, students pursuing doctoral status/programs must enroll in the following course:

- EML 5XXX: Graduate Seminar (0 credit hours)

Students must register for the course a minimum of four (4) times during their graduate career in the doctoral program. Students must complete the EML 5XXX: Graduate Seminar course twice (2) prior to taking the candidacy exam, and twice (2) after completing the candidacy exam. The students must also complete the course with a satisfactory (S) grade in all attempts. If the student does not complete the course with a grade of satisfactory, 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 (6908)
- At least 27 credit hours must be formal coursework, exclusive of independent study

Dissertation—15 Credit Hours

- EML 7980 (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 requires that a PhD student submits his/her candidacy exam the academic semester immediately following his/her successfully passing 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 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 before the defense date.

More information on these examinations and other requirements of the PhD program are contained in the [Mechanical Engineering PhD Handbook](#).

Dissertation Committee

The doctoral committee must consist of a minimum of five members: three must be graduate faculty members from within the student's department, and one must be at large from outside the Mechanical, Materials and Aerospace Engineering Department. The committee Chair must be a member of the graduate faculty approved to direct dissertations. Joint faculty members serve as department-faculty committee members as well as chairs of dissertation committees. Adjunct faculty and off-campus experts, if approved graduate faculty scholars, may serve as the outside-the-college person in the committee. Program areas may further specify additional committee membership. 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.

Joint faculty members may serve as committee chairs. Off-campus experts and adjunct faculty, if approved graduate faculty scholars, may not serve as committee chairs but may serve as co-chairs.

All 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 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.
- The dissertation advisory committee is formed, consisting of approved Graduate Faculty and Graduate Faculty Scholars.
- Submission of an approved program of study.

Equipment Fee

Students in the Mechanical Engineering PhD program pay a \$90 equipment fee each semester that they are enrolled.

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

Applicants to this program are strongly encouraged to complete the necessary information requested for the ETS PPI (Personal Potential Index) report that is available during the GRE examination. All official PPI reports must be submitted directly to the UCF College of Graduate Studies (use UCF Institution Code: 5233).

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

Mechanical 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	-

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

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:

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

Industrial Engineering PhD

PROGRAM DESCRIPTION

The Doctor of Philosophy in Industrial Engineering is primarily intended for a student with a master's degree in Industrial Engineering or a closely related discipline.

The PhD program is designed to produce highly skilled researchers with both broad knowledge of industrial engineering and in-depth knowledge of specialty fields for careers in academia, industry, and government. The program allows a candidate to thoroughly study some aspect of industrial engineering, such as engineering management, systems operations and modeling, quality systems engineering, interactive simulation and training systems, systems engineering, and human systems engineering/ergonomics.

The Industrial Engineering program is structured to support the emergence of Central Florida as a national center of high technology as well as supporting the diverse service industries in the region and throughout the nation.

In the Industrial Engineering Ph.D. program, students may be able to individually craft their programs of study and select their courses to focus in one or more of the following research areas for their dissertations:

Human Systems Engineering/Ergonomics:

As technology has become more sophisticated, the need to design for the human user has become more difficult, yet even more important. Human engineering and ergonomics assist in ensuring that as technology advances, the abilities, limitations, and needs of humans are considered in the system design. This not only supports the needs of the user, it also optimizes the efficiency and usability of the system designed. Traditionally, ergonomics has been associated with biomechanical issues and work measurement and performance issues in physical system design, as well as occupational and industrial safety. The broader focus of human engineering encompasses those issues as well as incorporating the reaction and effectiveness of human interaction with systems, both physical systems and virtual systems such as computer-based models.

Research in the Human Systems Engineering and Ergonomics area provides students with the necessary knowledge in human engineering and ergonomics to effectively design tasks, industrial systems, and work environments that maximize human performance, safety, and overall productivity.

Interactive Simulation and Training Systems:

The Interactive Simulation and Training Systems research within the Industrial Engineering MS program focuses on providing a fundamental understanding of significant topics relative to simulation systems and the requirements, design, development, and use of such systems for

knowledge transfer in the technical environment. Courses in this area address the evolving and multiple discipline application of interactive simulation by providing a wealth of electives to support development of individual student interests and talents. In conjunction with UCF's Institute for Simulation and Training, industrial organizations involved in simulation in the Central Florida region, military organizations, and other governmental organizations, ISTS research in the MS program provides exposure to both military and commercial interactive simulation and training systems.

The emphasis is on the application and development of interactive simulation and training systems to meet various requirements including, but not limited to: simulators, skill trainers, organizational learning systems, computer and web-based interactive simulation systems and other novel interactive simulation efforts. Courses in the interactive simulation and training systems area prepare individuals with an undergraduate degree in engineering, science, education, psychology, mathematics or other related disciplines for careers in simulation, focusing particularly on the interactive simulation and training systems industries.

Operations Research:

The Operations Research courses in the Industrial Engineering MS program uses mathematics and computer-based systems to model operational processes and decisions in order to develop and evaluate alternatives that will lead to gains in efficiency and effectiveness. Drawing on probability, statistics, simulation, optimization, and stochastic processes, Operations Research provides many of the analytic tools used by industrial engineers as well as by other analysts to improve processes, decision-making, and management by individuals and organizations. Research in this area is ideal for students who have an undergraduate degree in engineering, mathematics, or science. The knowledge in these courses build on an undergraduate Engineering, Mathematics, or Science degree to develop a strong modeling and analytical capability to improve processes and decision-making.

Quality Systems Engineering:

The Quality Systems Engineering research in the Industrial Engineering MS program focuses on providing the knowledge for improving product and process quality in manufacturing and service industries. Quality Systems Engineering provides both the quantitative tools for measuring quality and the managerial focus and organizational insight required to implement effective continuous improvement programs and incorporate the voice of the customer. The Quality Systems Engineering courses builds on an undergraduate degree in industrial engineering or a closely related discipline to provide the necessary knowledge to plan, control, and improve the product assurance function in government, military, service, or manufacturing organizations.

Simulation Modeling and Analysis:

The Simulation Modeling and Analysis research and studies in the Industrial Engineering MS program focus on providing a fundamental understanding of the functional and technical design requirements for simulation in manufacturing and service industries. Research in this area is based on a systems modeling paradigm and provides coding and development capability in the

context of a broader systems framework. Significant exposure to design and analysis aspects is a core element of the track. The Simulation Modeling and Analysis research and coursework prepare individuals with an undergraduate degree in Engineering, Science, Mathematics, or a closely related discipline for careers in simulation, focusing particularly on using simulation as an analysis and design tool for the manufacturing and service industries.

Systems Engineering:

Intelligence in being infused into everyday systems, processes and infrastructure that enable physical goods to be developed, manufactured, bought and sold. These same systems also facilitate the movement and delivery of global products and services that support worldwide markets such as finance, energy resources and healthcare systems.

With these technological advancements, comes a new level of complexity as organizations struggle to integrate systems, processes and data feeds. As a result, the demand for systems engineering and related skills is expected to grow significantly.

Systems engineers design and implement computer systems, software and networks, including defining complex system requirements, and determining system specifications, processes and working parameters.

The Systems Engineering studies and research in the Industrial Engineering MS program are intended for individuals of all engineering disciplines. Research and coursework focus on a systems view of engineering problems related to the management of complex industrial, military, government, and social systems.

[Read More ▼▲](#)

CURRICULUM

The Industrial Engineering PhD program requires a minimum of 72 credit hours beyond the bachelor's degree. Beyond the master's degree, students must complete at least 27 credit hours of required courses that include 6 credit hours of doctoral core 21 credit hours of doctoral elective courses, that may include up to 12 credit hours in qualifying examination core courses*, in addition to 15 credit hours of dissertation.

* see details below for those students who may be required to take these 12 credit hours of qualifying examination coursework.

~~The Industrial Engineering PhD program requires a minimum of 72 credit hours beyond the bachelor's degree. Beyond the master's degree, students must complete at least 27 credit hours of required courses that include 6 credit hours of doctoral core, 9 credit hours in specialization core courses in a selected area (engineering management, human system engineering/ergonomics, training systems design and engineering,~~

~~quality systems engineering, systems operations and modeling, or systems engineering) and 12 credit hours of doctoral elective courses in addition to 15 credit hours of dissertation.~~

Of the total course work taken, 27 hours must be formal course work exclusive of independent study and 15 credit hours must consist of dissertation research (EIN 7980). All remaining hours are determined with a faculty adviser and approved by the department. Details about this program are located in the [Industrial Engineering PhD Handbook](#).

Total Credit Hours Required:

72 Credit Hours Minimum beyond the Bachelor's Degree

As a pre-doctoral student at the beginning of the PhD program, a preliminary program of study must be developed with the graduate program director and meet with departmental approval. At this time transfer credit will be evaluated on a course-by-course basis. After completion of the Qualifying Examination and admission as a doctoral student, the official program of study is developed with an adviser and must meet with departmental approval. The student's dissertation committee approves the final program of study after the Candidacy Examination is passed. The degree must be completed within seven years from the date of admission as a pre-doctoral student and within four years of passing the Candidacy Examination.

The Department of Industrial Engineering and Management Systems monitors student progress and may dismiss a student if performance standards or academic progress are not maintained. Satisfactory academic performance in a program includes, but is not limited to, maintaining at least a 3.0 GPA in all graduate work taken as part of (or transferred into) the program of study. Satisfactory performance also involves maintaining the standards of academic progress and professional integrity expected in our discipline. Failure to maintain these standards may result in dismissal from the program.

Depending on a student's chosen focus area, this program can be taken entirely through [FEEDS](#).

Prerequisites

Students must have background in the following areas.

- MS degree in Industrial Engineering or related discipline
- Must have MS Core knowledge (to be tested through Qualifying Examination)

~~Students without a BSIE (or MSIE from UCF) degree must have four additional required courses as articulation courses. See "Credit Waived from an Earned Master's Degree and Articulation" section below.~~

Required Courses—27 Credit Hours

Doctoral Core Courses—6 Credit Hours

- ESI 6891 IEMS Research Methods (3 credit hours)

Select one of the following courses:

- ESI 6247 Experimental Design and Taguchi Methods (3 credit hours)
- ~~EIN 5388 Forecasting (3 credit hours)~~

~~Specialization Core—9 Credit Hours~~

Select one of the following focus areas:

~~Human System Engineering/Ergonomics~~

- ~~EIN 5248C Ergonomics (3 credit hours)~~
- ~~EIN 5251 Usability Engineering (3 credit hours)~~
- ~~EIN 6270C Work Physiology (3 credit hours)~~

~~Engineering Management~~

- ~~EIN 5108 The Environment of Technical Organizations (3 credit hours)~~
- ~~EIN 6459 Concurrent Engineering (3 credit hours)~~
- ~~EIN 6182 Engineering Management (3 credit hours)~~

~~Interactive Simulation and Training Systems~~

- ~~EIN 5255C Interactive Simulation (3 credit hours)~~
- ~~EIN 6649C Intelligent Tutoring Training System Design (3 credit hours)~~
- ~~EIN 6645 Real Time Simulation Agents (3 credit hours)~~

~~Quality Systems Engineering~~

- ~~ESI 5236 Reliability Engineering (3 credit hours)~~
- ~~ESI 6224 Quality Management (3 credit hours)~~
- ~~ESI 6225 Quality Design and Control (3 credit hours)~~

~~Systems Operations and Modeling~~

- ~~ESI 5531 Discrete System Simulation* (3 credit hours)~~
- ~~ESI 6358 Decision Analysis (3 credit hours)~~
- ~~ESI 5306 Operations Research* (3 credit hours)~~

~~* For BSIE students, these courses will be replaced with ESI 6532 and ESI 6418.~~

~~Systems Engineering~~

- ~~EIN 6215 System Safety Engineering and Management (3 credit hours)~~
- ~~ESI 5359 Risk Assessment and Management (3 credit hours)~~
- ~~ESI 6358 Decision Analysis (3 credit hours)~~

~~Doctoral Elective Courses—12 Credit Hours~~

- ~~Up to four unrestricted electives~~

Qualifying Core Courses - - up to 12 Credit Hours

Incoming students with MSIE that may have taken the following course or accepted substitutes may be allowed to select other courses as electives in their programs of study, with the approval of the Graduate Director.

- ESI 5219 Engineering Statistics (3 credit hours)
- EIN 5140 Project Engineering (3 credit hours)
- EIN 6357 Advanced Engineering Economic Analysis (3 credit hours)
- ESI 6551C Systems Engineering (3 credit hours)

Doctoral Elective Courses—up to 21 Credit Hours

- Up to seven unrestricted electives

Dissertation—15 Credit Hours

- EIN 7980 Dissertation (15 credits hours minimum)

Credits Waived from an Earned Master's Degree and Articulation

A maximum of 30 semester credit hours from an earned master's degree may be applied toward these requirements. Waived credits are evaluated on a course-by-course basis.

~~Articulation Courses~~

~~Students who do not have an earned BSIE or MSIE need to take the four courses that constitute the MS core. These courses are:~~

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

Other Electives

The students, with the approval of their advisors and/or the program graduates director, may select from the following groups of courses to satisfy the needs of their research goals or career objectives. To assist the students achieve such goals and objectives, courses are grouped below to suggest focus areas, only as guides to assist in advising and course selection. The listing of these courses does not guarantee that they will be offered by the department in a particular year or semester.

In addition to the courses listed below, students may be allowed to take courses from the following disciplines, with the approval of the Graduate program Director, as an elective in their Graduate Program of Study:

- Other Engineering Programs
- Computer Science
- Mathematics and Statistics
- Business Administration/Management

~~In addition, these students are encouraged to take additional articulation courses, if needed, from any of the following areas:~~

Group A: Human System Engineering/Ergonomics

- EIN 5248C Ergonomics
- EIN 5251 Usability Engineering
- EIN 6270C Work Physiology
- EIN 6258 Human-Computer Interaction
- EIN 6279C Biomechanics
- EIN 6935 Advanced Ergonomics Topics
- EIN 6271 Human Reliability

Group B: Quality and Production Systems

- ESI 6225 Quality Design and Control
- ESI 6224 Quality Management
- EIN 5392 Manufacturing Systems Engineering
- EIN 5388 Forecasting
- EIN 6336 Production and Inventory Systems
- EIN 6425 Scheduling and Sequencing
- EIN 5356 Cost Engineering
- ESI 5227 Total Quality Improvement
- ESI 6247 Design of Experiments and Taguchi Methods

Group B: Management Systems

- EIN 6182 Engineering Management
- EIN 5117 Management Information Systems I
- EIN 6370 Innovation in Engineering Design

- EIN 6339 Operations Engineering
- EIN 5108 The Environment of Technical Organizations

Group C: Simulation, Optimization, and Modeling

- ESI 6336 Queuing Systems
- ESI 5306 Operations Research
- ESI 6418 Linear Programming and Extensions
- ESI 6532 Object-Oriented Simulation
- ESI 5531 Discrete System Simulation
- EIN 5255C Interactive Simulation
- EIN 6528 Simulation Based Life Cycle Engineering
- EIN 6645 Real-Time Simulation Agents
- EIN 6936 Seminar in Advanced Industrial Engineering
- ESI 5419C Engineering Applications of Linear and Nonlinear Optimization
- ESI 6217 Statistical Aspects of Digital Simulation
- ESI 6529 Advanced Systems Simulation
- ESI 6921 Seminar in Advanced Operations Research

Group D: Systems Engineering

- ESI 6358 Decision Analysis
- ESI 5359 Risk Assessment and Management
- EIN 6215 Systems Safety Engineering and Management
- ESI 5236 Reliability Engineering
- EIN 5346 Engineering Logistics
- ESI 6891 IEMS Research Methods

Group A: Human System Engineering/Ergonomics

- ~~EIN 6270C Work Physiology (3 credit hours)~~
- ~~EIN 6258 Human-Computer Interaction (3 credit hours)~~
- ~~EIN 6279C Biomechanics (3 credit hours)~~
- ~~EIN 6215 Systems Safety Engineering and Management (3 credit hours)~~
- ~~EIN 5251 Usability Engineering (3 credit hours)~~
- ~~EIN 5248C Ergonomics (3 credit hours)~~

Group B: Traditional Industrial Engineering (IE, Engineering Management, Quality, Manufacturing)

- ~~ESI 6225 Quality Design and Control (3 credit hours)~~
- ~~ESI 6224 Quality Management (3 credit hours)~~
- ~~ESI 5236 Reliability Engineering (3 credit hours)~~
- ~~EIN 5346 Engineering Logistics (3 credit hours)~~
- ~~EIN 5108 The Environment of Technical Organizations (3 credit hours)~~
- ~~EIN 6182 Engineering Management (3 credit hours)~~

- ~~EIN 5117 Management Information Systems I (3 credit hours)~~

~~Group C: Simulation, Optimization, and Modeling~~

- ~~ESI 6336 Queuing Systems (3 credit hours)~~
- ~~ESI 6358 Decision Analysis (3 credit hours)~~
- ~~ESI 5359 Risk Assessment and Management (3 credit hours)~~
- ~~ESI 5306 Operations Research (3 credit hours)~~
- ~~ESI 6418 Linear Programming and Extensions (3 credit hours)~~
- ~~ESI 6532 Object-Oriented Simulation (3 credit hours)~~

Examinations

While thinking about taking the Qualifying Examination, students are strongly encouraged to evaluate their options for research and make informed decisions about their area of research interests. It is recommended that students seek advice from faculty members whose research interest match their own research areas in order for the students to properly select their electives and develop the appropriate plan of study.

In addition to the Qualifying Examination, the student must pass a Candidacy Examination and a Dissertation Defense Examination. Details about these examinations and other requirements are located in the Student Handbook at www.handbooks.graduate.ucf.edu/hb/handbook.aspx?id=1258&hid=3312&program=Industrial_Engineering_PhD.

~~In addition to the Qualifying Examination, the student must pass a Candidacy Examination and a Dissertation Defense Examination. Details about these examinations and other requirements are located in the Student Handbook at www.handbooks.graduate.ucf.edu/hb/handbook.aspx?id=1258&hid=3312&program=Industrial_Engineering_PhD.~~

The Qualifying Examination is a written exam that focuses on the student's mastery of the content covered in the IEMS MS program's core courses. These courses are:

- ESI 5219 Engineering Statistics (3 credit hours)
- EIN 5140 Project Engineering (3 credit hours)
- EIN 6357 Advanced Engineering Economic Analysis (3 credit hours)
- ESI 6551C Systems Engineering (3 credit hours)

~~The Qualifying Examination is a written exam that focuses on the student's mastery of the content covered in the IEMS MS program's core courses that are listed above.~~

IEMS MS students who plan to continue their studies for the Industrial Engineering PhD can take the qualifying exam in the last semester before or the first semester after graduation. Graduates from other MS programs may delay taking the qualifying exam until they have taken the MS core courses. The maximum delay is one year after admission to the program. Courses other than MS core that are taken to prepare for the qualifying exam cannot be part of the doctoral program of study.

The Candidacy Examination may be taken any time after successful completion of the qualifying exam, but not in the same semester. The objective of the candidacy examination is to determine if the student has the breadth and depth of knowledge required to conduct independent research in the proposed area. The candidacy examination include an oral presentation of a **detailed dissertation proposal**, which becomes the oral candidacy document and the written component of the candidacy examination is satisfied by the proposal document, which becomes the required candidacy document.

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 announcements are approved by the student's adviser and posted on the [college's website](#) and on the Events Calendar of the College of Graduate Studies website at least two weeks before the defense date.

Dissertation Committee Requirement

The doctoral committee must consist of a minimum of four members: at least three must be graduate faculty members from within the student's department, and one must be at large, from graduate faculty scholars outside the Industrial Engineering faculty. The committee chair must be a member of the graduate faculty who is approved to direct dissertations. Faculty members with joint appointments in IEMS may serve as department-faculty committee members. Adjunct faculty and off-campus experts who are graduate faculty scholars may serve as the outside-the-department person on the committee, as well as serve as co-chairs of the committee with the approval of the department Chair. The 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.

Joint faculty members may serve as committee chairs. Off-campus experts and adjunct faculty who are graduate faculty scholars may not serve as committee chairs, but may serve as co-chairs.

All committee members vote on acceptance or rejection of the dissertation proposal and the final dissertation. The dissertation proposal or final dissertation must be approved by the advisory committee with no more than one dissenting vote.

Admission to Candidacy

The following are required to be admitted to candidacy and enroll in dissertation hours. Evidence of successful completion of these requirements must be received by the College of Graduate Studies one day prior to the start of classes for the semester in which a student wishes to enroll in dissertation hours.

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

~~IIEMS Graduate Courses by Focus Area~~

~~Human System Engineering/Ergonomics~~

- ~~EIN 5248C Ergonomics (3 credit hours)~~
- ~~EIN 5251 Usability Engineering (3 credit hours)~~
- ~~EIN 6215 System Safety Engineering and Management (3 credit hours)~~
- ~~EIN 6279C Biomechanics (3 credit hours)~~
- ~~EIN 6258 Human Computer Interaction (3 credit hours)~~
- ~~EIN 6264C Industrial Hygiene (3 credit hours)~~
- ~~EIN 6270C Work Physiology (3 credit hours)~~

~~Engineering Management~~

- ~~EIN 5108 The Environment of Technical Organizations (3 credit hours)~~
- ~~EIN 5117 Management Information Systems I (3 credit hours)~~
- ~~EIN 5140 Project Engineering (3 credit hours)~~
- ~~EIN 5356 Cost Engineering (3 credit hours)~~
- ~~EIN 5346 Engineering Logistics (3 credit hours)~~
- ~~EIN 6182 Engineering Management (3 credit hours)~~
- ~~EIN 6339 Operations Engineering (3 credit hours)~~
- ~~EIN 6357 Advanced Engineering Economic Analysis (3 credit hours)~~
- ~~EIN 6459 Concurrent Engineering (3 credit hours)~~

~~Training Systems Design and Engineering~~

- ~~EIN 5255C Interactive Simulation (3 credit hours)~~
- ~~EIN 5317 Training System Design (3 credit hours)~~
- ~~EIN 6645 Real Time Simulation Agents (3 credit hours)~~
- ~~EIN 6647 Intelligent Simulation (3 credit hours)~~
- ~~EIN 6649C Intelligent Tutoring Training System Design (3 credit hours)~~
- ~~EIN 6528 Simulation Based Life Cycle Engineering (3 credit hours)~~

~~Quality Systems Engineering~~

- ~~ESI 5227 Total Quality Improvement (3 credit hours)~~

- ~~ESI 5236 Reliability Engineering (3 credit hours)~~
- ~~ESI 6224 Quality Management (3 credit hours)~~
- ~~ESI 6225 Quality Design and Control (3 credit hours)~~
- ~~ESI 6247 Experimental Design and Taguchi Methods (3 credit hours)~~
- ~~ESI 5219 Engineering Statistics (3 credit hours)~~
- ~~EIN 6336 Production and Inventory Systems (3 credit hours)~~

~~Systems Operations and Modeling~~

- ~~ESI 5306 Operations Research (3 credit hours)~~
- ~~ESI 6336 Queuing Systems (3 credit hours)~~
- ~~ESI 6358 Decision Analysis (3 credit hours)~~
- ~~ESI 6418 Linear Programming and Extensions (3 credit hours)~~
- ~~ESI 5531 Discrete Systems Simulation (3 credit hours)~~
- ~~ESI 6217 Statistical Aspects of Digital Simulation (3 credit hours)~~
- ~~ESI 6532 Object Oriented Simulation (3 credit hours)~~
- ~~EIN 6425 Scheduling and Sequencing (3 credit hours)~~

~~Systems Engineering~~

- ~~ESI 6551C Systems Engineering (3 credit hours)~~
- ~~EIN 5388 Forecasting (3 credit hours)~~
- ~~EIN 5392C Manufacturing Systems Engineering (3 credit hours)~~

~~Other~~

- ~~ESI 6891 IEMS Research Methods (3 credit hours)~~
- ~~EGN 5858C Prototyping and Product Realization (3 credit hours)~~

Equipment Fee

Students in the Industrial Engineering PhD 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 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, competitive GRE score taken within the last five years.
- Master's degree in Industrial Engineering or a closely related discipline.
- Three letters of recommendation from individuals who are familiar with the applicant's capabilities to enter and succeed into his/her graduate studies and to perform graduate research.
- Curriculum Vitae/resume
- Statement of educational, research, and professional career objectives. The statement should explain the applicant's future career and educational goals, reasons behind seeking the degree, and why he/she believes that this degree best suits their interests.

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, competitive GRE score taken within the last five years.~~
- ~~• Master's degree in Industrial Engineering or a closely related discipline.~~
- ~~• Résumé.~~
- ~~• Statement of educational, research, and professional career objectives.~~
- ~~• Three letters of recommendation.~~

Applicants to this program are strongly encouraged to complete the necessary information requested for the ETS PPI (Personal Potential Index) report that is available during the GRE examination. All official PPI reports must be submitted directly to the UCF College of Graduate Studies (use UCF Institution Code: 5233).

Faculty members may choose to conduct face-to-face or telephone interviews before accepting an applicant into their research program.

Selected outstanding applicants who have a GPA of at least 3.4 in the last 60 attempted semester hours of their undergraduate degrees and have GRE scores above the 80th percentile in both the verbal and quantitative sections of the GRE may be considered for direct entrance as pre-doctoral students with bachelor's degrees.

Fellowships and assistantships may be awarded based on the student's GPA, GRE scores, letters of recommendation, curriculum vitae/resume, and goals statement.

Students must complete any needed articulation course work and pass a PhD Qualifying Examination in order to be admitted as a regular doctoral student. This exam is normally taken within the first year after all articulation work is completed.

Application Deadlines

Industrial Engineering PhD	Fall Priority	Fall	Spring	Summer
Domestic Applicants	Jan 15	Jul 15	Dec 1	Apr 15
International Applicants	Jan 15	Jan	Jul 1	Nov 1

		15		
International Transfer Applicants	Jan 15	Mar 1	Sep 1	Dec 15

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

Contact INFO

Graduate Program
Ahmad Elshennawy PhD
Professor

ahmade@ucf.edu

Telephone: 407-823-2204

Engineering 2, Room 312 [Map](#)



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

Name Change

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

Page 5 of UCF Program Recommendation Form

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

Industrial Engineering MSIE

PROGRAM DESCRIPTION

The Department of Industrial Engineering and Management Systems offers a Master of Science in Industrial Engineering (MSIE) degree focusing on the design and improvement of systems, products, and processes. A total systems approach is used to optimize the various aspects of operations in both manufacturing and service industries. Industrial engineers use many analytical approaches to improve productivity, safety, and quality of working life while reducing operating costs. The MSIE curriculum builds on an undergraduate engineering degree to develop a stronger systems focus and analytical capability.

The industrial engineering graduate programs are structured to support the emergence of Central Florida as a national center of high technology as well as supporting the diverse service industries in the region and throughout the nation.

Many of the graduate courses offered by the department or required in the MSIE program are offered through the Florida Engineering Educational Delivery System (FEEDS), which provides video-streamed versions of classes over the Internet.

[Read More ▼▲](#)

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.intl.ucf.edu. If you have any questions, please consult the International Services Center at 407-823-2337.

CURRICULUM

~~The Industrial Engineering and Management Systems MSIE program offers three options for completing the degree with options 1 and 2 having both thesis and nonthesis opportunities. All three options require 30 credit hours of courses beyond the bachelor's degree. Option 1 is designed for individuals desiring a broad generalist approach to management systems. Option 2 is for individuals desiring a more specialist approach to industrial engineering. And Option 3 is for those with BS degrees in engineering that are not in Industrial Engineering.~~

~~The MSIE curriculum builds on an undergraduate engineering degree to develop a stronger systems focus and analytical capability. Students with undergraduate degrees outside of industrial engineering may be required to take additional prerequisite courses.~~

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree

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 Industrial Engineering MSIE degree requires an undergraduate degree in Industrial Engineering or any other Engineering degree. Students with undergraduate degrees outside of industrial engineering may be required to take additional prerequisites.

The program offers both thesis and nonthesis options with each requiring 30 credit hours of courses. At least half of the regular coursework must be at the 6000 level. A cumulative grade-point average of B must be maintained in the entire program of study.

Prerequisites

Students with undergraduate preparation in industrial engineering or other engineering degrees are encouraged to apply for admission. Graduates from non-engineering curricula may apply to and obtain the M.S. degree.

All applicants are expected to have had the following prerequisites throughout their undergraduate engineering education:

- Mathematics through Calculus II (MAC 2312 or equivalent)
- An undergraduate course in engineering probability and statistics
- Familiarity of at least one programming language (such as C, FORTRAN, Java, Visual BASIC, C++, etc.)
- Familiarity of common computer skills and tools such as word-processors and spreadsheets

Required Courses (12 Credit Hours)

- ESI 5219: Engineering Statistics
- EIN 5140: Project Engineering
- ESI 6551C: Systems Engineering
- EIN 6357: Advanced Engineering Economic Analysis

Thesis Option—18 Credit Hours

The thesis option requires 12 credit hours of required courses, 12 credit hours of electives and 6 thesis credit hours. Thesis students must complete an independent research project, and write and successfully defend a thesis describing the project. Students may not register for thesis credit hours until an advisory committee has been appointed and the committee has reviewed the program of study and the proposed thesis topic.

EIN 6971 Thesis (6 credit hours)

Elective (12 credit hours)

The College of Engineering and Computer Science requires that all thesis defense announcements be approved by the student's adviser and posted on the college's website and on the university-wide Events Calendar at the College of Graduate Studies website at least two weeks before the defense date.

Nonthesis Option—18 Credit Hours

Nonthesis-option students must take an additional 18 credit hours of unrestricted electives that support the student's area of research and study interests, beyond the 12 credit hours of required core described above.

- Elective courses (18 credit hours) : see list below

COMPREHENSIVE EXAMINATION

Nonthesis students must also successfully pass an oral comprehensive examination at the completion of their studies to fulfill degree requirements. Please see the program director for further details.

All admitted students must develop a program of study with the Graduate Program Director that meet with departmental approval.

At least one-half of the credit hours (including thesis hours) required 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 and with an early start on a thesis, if applicable, can finish the program in 3 semesters.

IEMS ELECTIVES

The program requirements are made flexible enough to allow the student to tailor his/her coursework according to desired educational and career goals. Students may select any of the following courses in their programs of study, with the approval of their advisors and/or the program graduates coordinator. Elective courses should be designed in such a way to satisfy the needs of students' research goals or career objectives. To assist the students achieve such goals and objectives, courses are grouped below to suggest focus areas, only as guides to assist in advising and course selection. They are not intended to restrict elective choices among specialization areas as the intent of the program is to help graduate students maintain an integrated approach to their studies. Listing of these courses does not guarantee that they will be offered by the department in a particular year or a semester.

In addition to the courses listed below, students may be allowed to take courses from the following disciplines, with the approval of the Graduate program Director, as an elective in their Graduate Program of Study:

- Other Engineering Programs

- [Computer Science](#)
- [Mathematics](#)
- [Statistics](#)
- [Business Administration/Management](#)

[Group A: Human System Engineering/Ergonomics](#)

- [EIN 5248C Ergonomics](#)
- [EIN 5251 Usability Engineering](#)
- [EIN 6270C Work Physiology](#)
- [EIN 6258 Human-Computer Interaction](#)
- [EIN 6279C Biomechanics](#)
- [EIN 6935 Advanced Ergonomics Topics](#)
- [EIN 6271 Human Reliability](#)

[Group B: Quality and Production Systems](#)

- [ESI 6225 Quality Design and Control](#)
- [ESI 6224 Quality Management](#)
- [EIN 5392 Manufacturing Systems Engineering](#)
- [EIN 5388 Forecasting](#)
- [EIN 6336 Production and Inventory Systems](#)
- [EIN 6425 Scheduling and Sequencing](#)
- [EIN 5356 Cost Engineering](#)
- [ESI 5227 Total Quality Improvement](#)
- [ESI 6247 Design of Experiments and Taguchi Methods](#)

[Group B: Management Systems](#)

- [EIN 6182 Engineering Management](#)
- [EIN 5117 Management Information Systems I](#)
- [EIN 6370 Innovation in Engineering Design](#)
- [EIN 6339 Operations Engineering](#)
- [EIN 5108 The Environment of Technical Organizations](#)

[Group C: Simulation, Optimization, and Modeling](#)

- [ESI 6336 Queuing Systems](#)
- [ESI 5306 Operations Research](#)
- [ESI 6418 Linear Programming and Extensions](#)
- [ESI 6532 Object-Oriented Simulation](#)
- [ESI 5531 Discrete System Simulation](#)
- [EIN 5255C Interactive Simulation](#)
- [EIN 6528 Simulation Based Life Cycle Engineering](#)
- [EIN 6645 Real-Time Simulation Agents](#)

- EIN 6936 Seminar in Advanced Industrial Engineering
- ESI 5419C Engineering Applications of Linear and Nonlinear Optimization
- ESI 6217 Statistical Aspects of Digital Simulation
- ESI 6529 Advanced Systems Simulation
- ESI 6921 Seminar in Advanced Operations Research

Group D: Systems Engineering

- ESI 6358 Decision Analysis
- ESI 5359 Risk Assessment and Management
- EIN 6215 Systems Safety Engineering and Management
- ESI 5236 Reliability Engineering
- EIN 5346 Engineering Logistics
- ESI 6891 IEMS Research Methods

~~Research studies are required in one or more courses. The research study and report will focus on reviewing and analyzing contemporary research in the profession in order to help students acquire knowledge and skills pertaining to research-based best practices. In addition, students may engage in directed independent studies, directed research or a research report during their studies.~~

~~An approved program of study must be developed in consultation with the graduate program director. All programs of study must consist of 24 credit hours of required and elective coursework, exclusive of thesis and research. At least one-half of the credit hours (including thesis hours) required in a master's program of study must be taken in courses 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 and, with an early start on a thesis, if applicable, can finish the program in 3 semesters.~~

~~There are two options for students with a BSIE degree to pursue the MSIE; students with other Bachelor of Science degrees in Engineering may pursue Option 3 only.~~

~~Option 1: Generalist~~

~~This option is only for those holding the BSIE degree.~~

~~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 generalist program provides for both thesis and nonthesis options.~~

~~Required Courses—18 Credit Hours~~

- ~~EIN 5117 Management Information Systems I (3 credit hours)~~
- ~~EIN 5140 Project Engineering (3 credit hours)~~
- ~~EIN 6357 Advanced Engineering Economic Analysis (3 credit hours) OR ESI 6358 Decision analysis (3 credit hours)~~
- ~~ESI 5219 Engineering Statistics (3 credit hours)~~
- ~~ESI 5236 Reliability Engineering (3 credit hours)~~
- ~~ESI 6247 Experimental Design and Taguchi Methods (3 credit hours)~~

~~Elective Courses—6 Credit Hours~~

~~All students, both thesis and nonthesis, must take 6 credit hours of electives after consultation with their advisor. At least one-half of the credit hours of a student's program of study must be at the 6000 level.~~

~~Thesis Option—6 Credit Hours~~

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

~~The College of Engineering and Computer Science requires that all thesis defense announcements are approved by the student's advisor and posted on the college's website (<http://www.cecs.ucf.edu/graddefense/>) and on the College of Graduate Studies Events Calendar at least two weeks before the defense date.~~

~~Nonthesis Option—6 Credit Hours~~

~~Nonthesis students must take six additional electives and successfully pass an oral comprehensive examination.~~

~~Comprehensive Examination~~

~~For further details, please see the program director.~~

~~Option 2: Follow the requirements for any Industrial Engineering MS track.~~

~~This option is available only to those holding the BSIE degree.~~

~~Depending on the MS track a student chooses, 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 program provides for both thesis and nonthesis options.~~

~~Option 3: For those with other BS degrees in Engineering only.~~

This program can be taken entirely through the Florida Engineering Educational Delivery System (FEEDS), which provides video-streamed versions of classes over the Internet, except the prerequisite courses. This option does not provide a thesis option.

The following prerequisite courses are required.

Prerequisites

- Computer programming capability. Proficiency with MS Office is expected and experience with C, C++, Visual BASIC, or Java is recommended.
- STA 3032 or equivalent
- BS degree in Engineering
- Other prerequisites as needed by specific courses
- EIN 3314C Work Measurement and Design (3 credit hours)
- EIN 4333C Industrial Control Systems (3 credit hours)
- EIN 4391C Manufacturing Engineering (3 credit hours)

Required Courses—24 Credit Hours

Choose eight courses; at least three courses must be at the 6000 level.

- EIN 5117 Management Information Systems I (3 credit hours)
- EIN 5140 Project Engineering (3 credit hours)
- EIN 5248C Ergonomics (3 credit hours)
- EIN 6336 Production and Inventory Control (3 credit hours)
- EIN 6357 Advanced Engineering Economic analysis (3 credit hours)
- ESI 5219 Engineering Statistics (3 credit hours)
- ESI 5306 Operations Research (3 credit hours)
- ESI 5531 Discrete Systems Simulation (3 credit hours)
- ESI 6225 Quality Design and Control (3 credit hours)
- ESI 6247 Experimental Design and Taguchi Methods (3 credit hours)

Elective Courses—6 Credit Hours

- Students select elective courses subject to the requirement that at least one-half of the credit hours of a student's program of study must be at the 6000 level.

Comprehensive Examination

Students must successfully pass an oral comprehensive examination to fulfill degree requirements. Please see the program director for further details.

Equipment Fee

Full-time students in the Industrial Engineering MSIE program pay a \$90 equipment fee each semester that they are enrolled. Part-time students pay a \$45 equipment fee each semester that they are enrolled.

INDEPENDENT LEARNING

A research project serves as the independent learning experience for thesis students. Nonthesis students are required to successfully pass an oral comprehensive examination.

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 admission requirements](#), applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- A bachelor's degree in Industrial Engineering or other engineering ONLY.
- Two letters of recommendation from two individual who are familiar with the applicant's capabilities to enter and succeed into his/her graduate studies and to perform graduate research.
- Curriculum Vitae/resume.
- Statement of educational, research, and professional career objectives. The statement should explain the applicant's future career and educational goals, reasons behind seeking the degree, and why he/she believes that this degree best suits their interests.
- 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.
- ~~One official transcript (in a sealed envelope) from each college/university attended.~~

- ~~Bachelor's degree in Industrial Engineering or other Engineering degree ONLY.~~
- ~~Two letters of recommendation.~~
- ~~Résumé.~~
- ~~Statement of educational, research, and professional career objectives.~~
- ~~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.~~

Faculty members may choose to conduct face-to-face or telephone interviews before accepting an applicant into their research program.

Application Deadlines

Industrial Engineering MSIE	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

FINANCIALS

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

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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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

Contact INFO

Graduate Program
Ahmad Elshennawy PhD

Professor
ahmade@ucf.edu
Telephone: 407-823-2204
Engineering 2, Room 312



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

Name Change

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

Page 5 of UCF Program Recommendation Form

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

Industrial Engineering MS

PROGRAM DESCRIPTION

The Master of Science programs in Industrial Engineering are designed to produce highly skilled graduates that are prepared to be industrial engineers, engineering managers, or technical professionals, or leaders for the global economy as well as preparing them for further graduate work and/or independent research.

Industrial Engineering, in its broad nature, focuses on the design and improvement of systems, products, and processes. A total systems approach is used to optimize the various aspects of operations in both manufacturing and service industries. Industrial engineers use many analytical approaches to improve productivity, safety, and quality of working life while reducing operating costs.

The Master of Science programs in Industrial Engineering are designed to produce highly skilled industrial engineers with different technical skills and to prepare leaders for the global economy. The program offers specialization tracks in the areas of Human Systems Engineering/Ergonomics, Interactive Simulation and Training Systems, Quality Systems Engineering, Systems Operations and Modeling, and Systems Engineering.

Industrial Engineering focuses on the design and improvement of systems, products, and processes. A total systems approach is used to optimize the various aspects of operations in both manufacturing and service industries. Industrial engineers use many analytical approaches to improve productivity, safety, and quality of working life while reducing operating costs.

The Industrial Engineering programs are structured to support the emergence of Central Florida as a national center of high technology as well as supporting the diverse service industries in the region and throughout the nation.

In the Industrial Engineering MS graduate programs, students may be able to individually craft their programs of study and select their courses to focus in one or more of the following research areas:

Human Systems Engineering/Ergonomics:

As technology has become more sophisticated, the need to design for the human user has become more difficult, yet even more important. Human engineering and ergonomics assist in ensuring that as technology advances, the abilities, limitations, and needs of humans are considered in the system design. This not only supports the needs of the user, it also optimizes the efficiency and usability of the system designed. Traditionally, ergonomics has been associated with biomechanical issues and work measurement and performance issues in physical system design, as well as occupational and industrial safety. The broader focus of human engineering encompasses those issues as well as incorporating the reaction and effectiveness of human interaction with systems, both physical systems and virtual systems such as computer-based models.

Research in the Human Systems Engineering and Ergonomics area provides students with the necessary knowledge in human engineering and ergonomics to effectively design tasks, industrial systems, and work environments that maximize human performance, safety, and overall productivity.

Interactive Simulation and Training Systems:

The Interactive Simulation and Training Systems research within the Industrial Engineering MS program focuses on providing a fundamental understanding of significant topics relative to simulation systems and the requirements, design, development, and use of such systems for knowledge transfer in the technical environment. Courses in this area address the evolving and multiple discipline application of interactive simulation by providing a wealth of electives to support development of individual student interests and talents. In conjunction with UCF's Institute for Simulation and Training, industrial organizations involved in simulation in the Central Florida region, military organizations, and other governmental organizations, ISTS research in the MS program provides exposure to both military and commercial interactive simulation and training systems.

The emphasis is on the application and development of interactive simulation and training systems to meet various requirements including, but not limited to: simulators, skill trainers, organizational learning systems, computer and web-based interactive simulation systems and other novel interactive simulation efforts. Courses in the interactive simulation and training systems area prepare individuals with an undergraduate degree in engineering, science, education, psychology, mathematics or other related disciplines for careers in simulation, focusing particularly on the interactive simulation and training systems industries.

Operations Research:

The Operations Research courses in the Industrial Engineering MS program uses mathematics and computer-based systems to model operational processes and decisions in order to develop and evaluate alternatives that will lead to gains in efficiency and effectiveness. Drawing on probability, statistics, simulation, optimization, and stochastic processes, Operations Research provides many of the analytic tools used by industrial engineers as well as by other analysts to improve processes, decision-making, and management by individuals and organizations. Research in this area is ideal for students who have an undergraduate degree in engineering, mathematics, or science. The knowledge in these courses build on an undergraduate Engineering, Mathematics, or Science degree to develop a strong modeling and analytical capability to improve processes and decision-making.

Quality Systems Engineering:

The Quality Systems Engineering research in the Industrial Engineering MS program focuses on providing the knowledge for improving product and process quality in manufacturing and service industries. Quality Systems Engineering provides both the quantitative tools for measuring quality and the managerial focus and organizational insight required to implement effective continuous improvement programs and incorporate the voice of the customer. The Quality Systems Engineering courses builds on an undergraduate degree in industrial

engineering or a closely related discipline to provide the necessary knowledge to plan, control, and improve the product assurance function in government, military, service, or manufacturing organizations.

Simulation Modeling and Analysis:

The Simulation Modeling and Analysis research and studies in the Industrial Engineering MS program focus on providing a fundamental understanding of the functional and technical design requirements for simulation in manufacturing and service industries. Research in this area is based on a systems modeling paradigm and provides coding and development capability in the context of a broader systems framework. Significant exposure to design and analysis aspects is a core element of the track. The Simulation Modeling and Analysis research and coursework prepare individuals with an undergraduate degree in Engineering, Science, Mathematics, or a closely related discipline for careers in simulation, focusing particularly on using simulation as an analysis and design tool for the manufacturing and service industries.

Systems Engineering:


Intelligence in being infused into everyday systems, processes and infrastructure that enable physical goods to be developed, manufactured, bought and sold. These same systems also facilitate the movement and delivery of global products and services that support worldwide markets such as finance, energy resources and healthcare systems.

With these technological advancements, comes a new level of complexity as organizations struggle to integrate systems, processes and data feeds. As a result, the demand for systems engineering and related skills is expected to grow significantly.

Systems engineers design and implement computer systems, software and networks, including defining complex system requirements, and determining system specifications, processes and working parameters.

The Systems Engineering studies and research in the Industrial Engineering MS program are intended for individuals of all engineering disciplines. Research and coursework focus on a systems view of engineering problems related to the management of complex industrial, military, government, and social systems.

Additional information can be found at www.iems.ucf.edu.

 Read More ▾

CURRICULUM

Total Credit Hours Required:

30 Credit Hours Minimum beyond the Bachelor's Degree.

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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 program offers both thesis and nonthesis options with each requiring 30 credit hours of courses. At least half of the regular coursework must be at the 6000 level. A cumulative grade-point average of B must be maintained in the entire program of study.

The program is made very flexible to accommodate student's need to model his/her own program of study to suit their needs and future work and/or career goals.

Prerequisites

The Industrial Engineering MS program requires an undergraduate degree in Engineering, mathematics, computer science, statistics, physics, quantitative management, or similar field.

Outstanding students with degrees in other disciplines such as business, economics, or computer/information sciences may also be considered on a case-by-case basis, provided they have significant work experience and/or very high academic standing.

Regardless of the undergraduate degree, all applicants must have had Mathematics through Calculus II (MAC 2312 or equivalent) and an undergraduate course in engineering probability and statistics. In addition, they are expected to be familiar at least one programming language (such as C, FORTRAN, Java, Visual BASIC, C++, etc.) and common computer skills and tools such as word-processors and spreadsheets.

Required Core (12 Credit Hours)

- ESI 5219: Engineering Statistics
- EIN 5140: Project Engineering
- EIN 6357: Advanced Engineering Economic Analysis
- ESI 6551C: Systems Engineering

Electives (18 Credit Hours)

Thesis Option

Thesis-option students are required to take 6 credit hours of thesis research, in addition to 18 credit hours of electives. They must complete an independent research study and write and successfully defend a thesis according to program guidelines

- EIN 6971 Thesis (6 Credit hours)
- Electives (12 Credit Hours): see list below

The College of Engineering and Computer Science requires that all thesis defense announcements be approved by the student's adviser and posted on the college's website and

on the university-wide Events Calendar at the College of Graduate Studies website at least two weeks before the defense date.

Nonthesis Option

Nonthesis students must take 18 additional credit hours of electives beyond the 12 credit hours of required core described above.

- Elective courses (18 credit hours) : see list below

COMPREHENSIVE EXAMINATION

Nonthesis students must also successfully pass an oral comprehensive examination at the completion of their studies to fulfill degree requirements. Please see the program director for further details.

All students must develop a program of study with the Graduate Program Director that meet with departmental approval.

At least one-half of the credit hours (including thesis hours) required 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 and with an early start on a thesis, if applicable, can finish the program in 3 semesters.

IEMS ELECTIVES

The program requirements are made flexible enough to allow the student to tailor his/her coursework according to desired educational and career goals. Students may select any of the following courses in their programs of study, with the approval of their advisors and/or the program graduates coordinator. Elective courses should be designed in such a way to satisfy the needs of students' research goals or career objectives. To assist the students achieve such goals and objectives, courses are grouped below to suggest focus areas, only as guides to assist in advising and course selection. They are not intended to restrict elective choices among specialization areas as the intent of the MS program is to help graduate students maintain an integrated approach to their studies. Listing of these courses does not guarantee that they will be offered by the department in a particular year or a semester.

In addition to the courses listed below, students may be allowed to take courses from the following disciplines, with the approval of the Graduate program Director, as an elective in their Graduate Program of Study:

- Other Engineering Programs
- Computer Science
- Mathematics and Statistics
- Business Administration/Management

Group A: Human System Engineering/Ergonomics

- EIN 5248C Ergonomics
- EIN 5251 Usability Engineering
- EIN 6270C Work Physiology
- EIN 6258 Human-Computer Interaction
- EIN 6279C Biomechanics
- EIN 6935 Advanced Ergonomics Topics
- EIN 6271 Human Reliability
-

Group B: Quality and Production Systems

- ESI 6225 Quality Design and Control
- ESI 6224 Quality Management
- EIN 5392 Manufacturing Systems Engineering
- EIN 5388 Forecasting
- EIN 6336 Production and Inventory Systems
- EIN 6425 Scheduling and Sequencing
- EIN 5356 Cost Engineering
- ESI 5227 Total Quality Improvement
- ESI 6247 Design of Experiments and Taguchi Methods

Group B: Management Systems

- EIN 6182 Engineering Management
- EIN 5117 Management Information Systems I
- EIN 6370 Innovation in Engineering Design
- EIN 6339 Operations Engineering
- EIN 5108 The Environment of Technical Organizations

Group C: Simulation, Optimization, and Modeling

- ESI 6336 Queuing Systems
- ESI 5306 Operations Research
- ESI 6418 Linear Programming and Extensions
- ESI 6532 Object-Oriented Simulation
- ESI 5531 Discrete System Simulation
- EIN 5255C Interactive Simulation
- EIN 6528 Simulation Based Life Cycle Engineering
- EIN 6645 Real-Time Simulation Agents
- EIN 6936 Seminar in Advanced Industrial Engineering
- ESI 5419C Engineering Applications of Linear and Nonlinear Optimization
- ESI 6217 Statistical Aspects of Digital Simulation
- ESI 6529 Advanced Systems Simulation
- ESI 6921 Seminar in Advanced Operations Research

Group D: Systems Engineering

- ESI 6358 Decision Analysis
- ESI 5359 Risk Assessment and Management
- EIN 6215 Systems Safety Engineering and Management
- ESI 5236 Reliability Engineering
- EIN 5346 Engineering Logistics
- ESI 6891 IEMS Research Methods

EQUIPMENT FEE

Students in the Industrial Engineering MS 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 thesis or written/oral comprehensive examination.

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.

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.
- A bachelor's degree in Industrial Engineering or a related discipline, such as computer science, mathematics, other engineering disciplines, or statistics.

- Two letters of recommendation from two individual who are familiar with the applicant's capabilities to enter and succeed into his/her graduate studies and to perform graduate research.
- Curriculum Vitae.
- Statement of educational, research, and professional career objectives. The statement should explain the applicant's future career and educational goals, reasons behind seeking the degree, and why he/she believes that this degree best suits their interests.

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

- ~~• One official transcript (in a sealed envelope) from each college/university attended.~~
- ~~• A bachelor's degree in Industrial Engineering or a related discipline.~~
- ~~• Two letters of recommendation.~~
- ~~• Résumé.~~
- ~~• Statement of educational, research, and professional career objectives.~~
- ~~• 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.~~

~~Faculty members may choose to conduct face-to-face or telephone interviews before accepting an applicant into their research program.~~

Application Deadlines

Industrial Engineering MS	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

FINANCIALS

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Contact **INFO**

Graduate Program
Ahmad Elshennawy PhD
Professor
ahmade@ucf.edu
Telephone: 407-823-2204
Engineering 2, Room 312



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes** in Word).

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

Proposed Effective Term/Year: Fall 2013

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

Name of program, track and/or certificate: BS to MS Track

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

The accelerated undergraduate/graduate program in Industrial Engineering allows highly qualified undergraduate majors in Industrial Engineering to begin taking graduate-level courses that will count toward their master's degree while completing their baccalaureate program. Participation will enable completion of the Bachelor of Science and Master of Science degrees in Industrial Engineering in five instead of six years for students enrolled in full-time course work.

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☒ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Ahmad Elshennawy, PhD, Professor, ahmade@ucf.edu, Telephone: 407-823-2204, Engineering 2, Room 312

Page 2 of UCF Program Recommendation Form

Please check one: this action affects a: ☐ Program ☒ Track ☐ Certificate

Please check one: this action is a(n):

☒ Addition. Please proceed to Part A.

☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

☐ Inactivation

☐ Temporary Suspension of Admissions. Give Length of Suspension:


Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

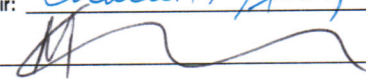
If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☒ Yes ☐ No Department Chair:  Date: 1/15/13

☒ Yes ☐ No College Curriculum Committee Chair: Charlotte H. Gully Date: 1/12/13

☒ Yes ☐ No College Dean:  Date: 1/22/13

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

IEMS Undergraduate Program changes are:

1. Eliminating our initial semester of senior design (EIN 4516) and continuing with our 1-semester senior design course (EIN 4891).
2. Reducing the number of hours for EIN 3001 Intro to IE from 3 hours to 1 hour.
3. Adding MAS 3105 Matrix Linear Algebra as a required course
4. Combining EGN 3613 and EIN 3354 to create a 3-hour course covering Engineering Economic Analysis and Cost Engineering
5. Reducing the number of prerequisites necessary for required courses

These changes allow us to streamline our program, provide additional electives and strengthen our technical content. The number of total hours remain at 128 and there is no impact on the graduate program .

For Revisions:

Brief listing of Program Changes: (Please indicate the changes in bullet format. If there are changes to the credit hours of the program, required courses or other requirements, please state those changes. **Remember to attach the catalog copy showing changes, using Track Changes in Word.**)

No changes affecting credit hours. There is no impact on the graduate program.

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 provide a list of students if possible:

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

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:

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Waldemar Karwowski, Ph.D., Professor and Chair, Texas Tech: IE, Human System Integration, Ergonomics/Human Engineering
Mark Calabrese, MS, Instructor, University of Central Florida: Project Management, Systems Engineering, Process Control, Corporate Strategic and Long Range Planning
Ahmad K. Elshennawy, Ph.D., Professor & Associate Chair, Penn State: IE, Quality and Reliability Engineering and Management, Production Systems
Christopher Geiger, Ph.D., Associate Professor, Purdue University: Production Systems, IE, Simulation, OR
Robert L. Hoekstra, Ph.D., Associate Professor, Cincinnati: Manufacturing Engineering, Engineering Management
Timothy G. Kolnour, Ph.D., Professor, Virginia Tech: Engineering Management, IE
Gene C.H. Lee, Ph.D., P.E., Associate Professor, Texas Tech: Human Engineering/Ergonomics, IE, Safety Engineering/Management
Pamela R. McCauley-Bush, Ph.D., Associate Professor, University of Oklahoma: Engineering/Ergonomics, IE, Biomechanics
Mansoor Mollaghasemi, Ph.D., Associate Professor, University of Louisville: IE, Simulation, OR, Decision Analysis
Jennifer Pazour, Ph.D., Assistant Professor, University of Arkansas: Applying OR Methodologies to Logistic Challenges in Healthcare, Distribution Center Design, and Transportation
Michael D. Proctor, Ph.D., Associate Professor, N. Carolina State: Interactive Simulation, Training System Design
Luis Rabelo, Ph.D., Associate Professor, University of Missouri: Production/Manufacturing Systems, IE, Management
Charles H. Reilly, Ph.D., Professor, Purdue University: OR, Industrial Engineering, Statistics
José A. Sepúlveda, Ph.D., P.E., Associate Professor, University of Pittsburgh: Simulation, IE, OR, production Systems
William Thompson, Ph.D., Associate Professor, Arizona State: Engineering management, IE, Production Systems, Quality
Petros Xanthopoulos, Ph.D., Assistant Professor, University of Florida: OR, Robust Optimization, Data Mining, Machine Learning, Optimization in Biomedicine

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

None.

If **applicable**, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an **addition**, 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.

BSIE students.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an **addition**, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an **addition** or there are **substantial REVISIONS** to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014
EDF 7041	EDF 7041	EDF 7041	EDF 7041	EDF 7041
EDF 6442	EDF 6442	EDF 6442	EDF 6442	
EDF 7848	EDF 7848	EDF 7848		
EDF 6543	EDF 6543			
EDA 7503				

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

Accelerated BS to MS

TRACK DESCRIPTION

The accelerated undergraduate/graduate program in Industrial Engineering allows highly qualified undergraduate majors in Industrial Engineering to begin taking graduate-level courses that will count toward their master's degree while completing their baccalaureate program. Participation will enable completion of the Bachelor of Science and Master of Science degrees in Industrial Engineering in five instead of six years for students enrolled in full-time course work.

Industrial Engineering focuses on the design and improvement of systems, products, and processes. A total systems approach is used to optimize the various aspects of operations in both manufacturing and service industries. Industrial engineers use many analytical approaches to improve productivity, safety, and quality of working life while reducing operating costs.

The Industrial Engineering graduate programs are structured to support the emergence of Central Florida as a national center of high technology as well as supporting the diverse service industries in the region and throughout the nation.

Additional information can be found at www.iems.ucf.edu.

CURRICULUM

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

The BSIE is awarded after fulfilling all university requirements including completing 128 credit hours of course work and 71 credit hours of engineering courses. The MSIE is awarded upon completion of the master's program. Courses designated in General Education Program and Common Program Prerequisites are usually completed in the first 60 hours (see engineering major requirements in the Undergraduate Catalog).

Up to 12 credit hours of approved 5000-level courses with grades "B" (3.0) or better may be counted toward both the BS and MS degrees. Additional notes on the Accelerated Undergraduate and Graduate Program in Industrial Engineering are as follows:

- Students who change degree programs and select this major must adopt the most current catalog.
- Students must earn at least a "B" (3.0) in each undergraduate and graduate engineering course for them to be counted toward the major.

Undergraduate Requirements

Please see the current edition of the Undergraduate Catalog or the academics section of the College of Engineering and Computer Science website, link given above, for additional information about this program

Graduate Requirements

Please see Industrial Engineering MSIE graduate program [for additional](#) requirements ~~in the track of interest.~~

Equipment Fee

Students in the Industrial Engineering MSIE program pay a ~~\$90-58~~ equipment fee each semester that they are enrolled. For part-time students, the equipment fee is ~~\$45-29~~ per semester.

INDEPENDENT LEARNING

The Independent Learning Requirement is met by successful completion of a master's thesis. Nonthesis students will complete a comprehensive exam [as specified in the MSIE program requirements](#) ~~or specific course as mandated by their specialization.~~

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 **Accelerated BS to MS program** in Industrial Engineering allows highly qualified University of Central Florida undergraduate majors in Industrial Engineering to begin taking graduate level courses that will count toward their master's degree while completing their baccalaureate degree program. Students apply for admission to the accelerated program in either their junior year or senior year. If the student has a degree in the discipline, but were not previously part of this accelerated program, then they should apply to MSIE [degree](#) ~~degree with option in Human Systems Engineering/Ergonomics Track, Interactive Simulation and Training Systems Track, Quality Systems Engineering, Systems Operations and Modeling Track, Systems Engineering Track, or the Generalist Master of Science in Industrial Engineering option without a track selection.~~ Additional information about this track may be located at: <http://www.cecs.ucf.edu/academics/acceleratedbstomsprograms>.

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.](#)
- [A bachelor's degree in Industrial Engineering or other engineering ONLY.](#)
- [Two letters of recommendation from two individual who are familiar with the applicant's capabilities to enter and succeed into his/her graduate studies and to perform graduate research.](#)
- [Curriculum Vitae/resume.](#)
- [Statement of educational, research, and professional career objectives. The statement should explain the applicant's future career and educational goals, reasons behind seeking the degree, and why he/she believes that this degree best suits their interests.](#)
- [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.](#)

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- One official transcript (in a sealed envelope) from each college/university attended.
- Two letters of recommendation.
- A bachelor's degree in Industrial Engineering or a related discipline.
- Résumé.
- Statement of educational, research, and professional career objectives.
- 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.

Faculty members may choose to conduct face-to-face or telephone interviews before accepting an applicant into their research program.

Application Deadlines

Accelerated BS to MS	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

FINANCIALS

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Funding for Graduate School](#), 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 [Fellowships](#), which includes descriptions of UCF fellowships and what you should do to be considered for a fellowship.

Contact **INFO**

Graduate Program
Ahmad Elshennawy PhD
 Professor

ahmade@ucf.edu
 Telephone: 407-823-2204
 Engineering 2, Room 312



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

Name Change

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

Page 5 of UCF Program Recommendation Form

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

Name Change

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

Page 5 of UCF Program Recommendation Form

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

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	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)



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College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

Name Change

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

Page 5 of UCF Program Recommendation Form

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

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)



Program Recommendation Form

This form is to be used to revise, add, suspend, or delete degree programs, tracks, or certificate programs. If there are changes to a program and the changes will affect the program tracks also, one form may be used for this type of change.

PLEASE NOTE: The deadline for new tracks or certificates is **February 1 of each year**. Any proposal for new tracks or certificates received after this date will not be included in the next year's catalog. Revisions to existing programs, tracks, or certificates are **due by March 15**. Any proposals for revisions received after that date will not be included in the next year's catalog. Please include catalog copy (description, curriculum, contact information, application requirements, and application deadlines). For revisions – attach the catalog copy showing changes (use **Track Changes in Word**).

College/Unit(s) Submitting Proposal: _____

Proposed Effective Term/Year: _____

Unit(s) Housing Program: _____

Name of program, track and/or certificate: _____

Brief description of program (this description will show up in the graduate catalog copy): *Do not add complete catalog copy here.*

DELIVERY - Will program be delivered: ☐ Face to face ☐ Completely online ☐ Mixed delivery

Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

Application requirements: (Please specify if you have different application requirements for the track than for the program? Will you admit directly to the track?)

Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

Inactivation: Admissions will be suspended for new students and the program will be removed from the online application. 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 catalog as of the approved term.

If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

Part A – For additions or revisions of programs, tracks or certificates

Brief statement of rationale: (Please indicate the rationale, how it affects the unit and faculty teaching in and students enrolled in the program, track or certificate.)

For Revisions:

Brief listing of Program Changes: (Please indicate the 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.**)

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 provide a list of students if possible:

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

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:

Provide the name of the current program, track, or certificate:

When is the name change effective? Please note: A 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.

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

If you are requesting a CIP Code change for an existing program, track, or certificate, please provide:

old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

If applicable, provide a written agreement (email is fine) from all involved units that they are in support of, will provide courses to, or will participate in the program, track, or certificate. Please attach the correspondence and also list the units here.

If an addition, 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.

	Year 1	Year 2	Year 3
Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

	No. assistantship students	Source of funds	No. fellowship students (specify fellowship)	No. tuition remissions	Source of funds
Year 1					
Year 2					
Year 3					

Checklist of items to be provided:

- ☐ Electronic graduate catalog copy for additions; track changes included if there are revisions. (required)
- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ Emails showing consultation with other units. (if applicable)
- ☐ If an addition, list of 1-3 students and 1-3 faculty for profiles in the graduate catalog (provide email address so Graduate Studies can contact them to write profiles and take photos). You may provide draft copy of profiles if you wish.
- ☐ If an addition, what disciplines does this program, track or certificate belong to? What other UCF graduate programs, tracks, or certificates are related to it? This information will be used to provide additional links for prospective students to search in the online graduate catalog.

Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
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Admissions deadlines: (Please specify if you have a different deadline for the track than for the program?)

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Program Director(s) and contact information: (name, email, phone, campus address, program website address)

Please check one: this action affects a: ☐ Program ☐ Track ☐ Certificate

Please check one: this action is a(n):

- ☐ Addition. Please proceed to Part A.
- ☐ Revision. If a revision applies to multiple tracks, please list them here and then proceed to Part A:

-
- ☐ Inactivation
- ☐ Temporary Suspension of Admissions. Give Length of Suspension:
-

Temporary suspension of admissions: The program will be removed from the online application. A notation will be entered in the graduate catalog indicating the length of the suspension of admissions. Currently enrolled students will not experience any issues with continued enrollment.

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If you checked inactivation or you are temporarily suspending admissions, please go to Part B and complete it.

Signature Page

RECOMMENDATIONS

☐ Yes ☐ No Department Chair: _____ Date: _____

☐ Yes ☐ No College Curriculum Committee Chair: _____ Date: _____

☐ Yes ☐ No College Dean: _____ Date: _____

☐ Yes ☐ No Chair or GSC: _____ Date: _____

☐ Yes ☐ No Dean, College of Graduate Studies: _____ 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 Research; Academic Services; Faculty Senate;
University Analysis and Planning Support; College of Graduate Studies

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Page 5 of UCF Program Recommendation Form

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old CIP:

new CIP:

If a name change is your only revision, stop here. Otherwise, complete the rest of Part A.

Part A - Continued

Specify the faculty who will participate in the program, track or certificate and their credentials to do so: (List faculty and a brief paragraph of their credentials.)

Impact of changes on students: Will current students be impacted by the addition or revision of a program, track or certificate? If so, how?

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Headcount			
SCHs			

If an addition, indicate likely career or student outcomes upon completion: (What will students do? What will their job titles be?)

Part A - Continued

If an addition or there are substantial REVISIONS to existing tracks or certificates, please complete the following table on financial support: (Specify all forms of support – assistantships, fellowships, and tuition remission.)

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Year 2					
Year 3					

Checklist of items to be provided:

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Part B – For inactivations or suspensions of programs, tracks, or certificates

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

If yes, number of current students:

Please specify the intended time period of inactivation or suspension:

If program, track, or certificate is being inactivated or suspended, then 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 so, when the completion date will be, whether students will be moved to another program, etc. Please provide a list of students where applicable.

Sample teach out plan: Enter the terms and courses that will be taught for each term throughout the last semester. **Please delete course prefixes and numbers in this section if no teach out plan is required.**

Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014

Checklist of items to be provided:

- ☐ Attach all appropriate course action requests that will be necessary to implement the changes. (required)
- ☐ E-mails showing consultation with other units. (if applicable)

MCB 5XXX
Cellular and Molecular Neuroscience – Graduate Level
Spring 2012
Dr. Alvaro G. Estévez
Dr. Yoon-Seong Kim

Lecture: TBA
Location: TBA

Contacting the Professor: Alvaro G. Estévez, Ph.D.

Office: BBS 241

Office hours: MW 3:30-5:00 PM, F 3:00-5:00 PM

You are strongly encouraged to make an appointment during these hours by e-mail in advance to gain access to this area of BMS building due to security requirements

E-mail: aest@mail.ucf.edu

Course Text: Fundamental Neuroscience, Third Edition (2008) by Larry R. Squire, Drawin Berg, Floyd E. Bloom, Sacha du Lac, Anirvan Ghosh and Nicholas C. Spitzer. Additional handout material will be given during the course and lecture notes will be posted on WebCT prior to class whenever possible. Writing assignments will be posted on WebCT at least 2 weeks before the due date.

Requirements:

Standing graduate student status

Course Description: This course will give the students a thorough understanding of the nervous tissue at the cellular and molecular level. The interactions between the different cell types and the communication between the cells is emphasized. Understanding not only of the intracellular pathway governing the communication between neurons, but the interactions of different cell populations in the nervous system to define shape and function is central to the study of the nervous system. Analysis of classical literature that are the basis to the current understanding of the nervous system and current literature on new advances on cellular and molecular neuroscience will be emphasized.

Course Objectives: Students will gain an advance understanding of the basic cellular components of the nervous systems and the molecular mechanisms involved in their survival and communication. The students will be taken from a refreshment of neuroscience history and the hierarchies of the nervous system to the detailed intracellular pathways involved in neurotransmission and cellular communications. The goal is for the students to understand that the regulation of the nervous systems involves more than neurons and electrical impulses, and that the final architecture and functions of the nervous systems are dependent on all its cellular components. Students will be exposed to critical analysis of the literature to

learn how to formulate scientifically sound hypothesis and experimental design testing to investigate the hypothesis.

Exams, Assignments and Grading: Exams will be given only at the indicated times; early or late exams will not occur. Make-up exams will not be offered. Graduate student exams include 2-3 additional questions that will involve data interpretation and a more in depth understanding of course material.

Graduate students in this course are expected to carry additional assignments related to writing, oral presentation and critical thinking. In addition to the in class exams and final exam:

Graduate students will write a short synopsis (no more than 2 pages) of the assigned research papers. Each synopsis should include the major findings of the paper and how the findings contribute to the current state of the field. Graduate students will propose a hypothesis and a brief experimental design to test it based on the findings of each paper that could be a future direction of research. The written synopsis and hypothesis statement for each paper will be turned in on no later than two week after the assignment is given. The hypothesis statement will be discussed with the instructor to help refining before presentation. The last 15 minutes of each class will be dedicated to presentations and discussion of the additional materials.

Four exams: <i>Each covers a specific portion of course material</i> <i>Lowest grade dropped automatically</i>	15 % each	45%
Homework assignments:		25%
Final Exam: <i>Cumulative, with an emphasis on new material</i>	20%	20%
Discussion session – and participation		10%
Total		100%

Exams, including the final examination may include question related to the topics and papers assigned.

Grades will be assigned as follow:

90-100 %	A
80-89 %	B
70-79 %	C
50-69 %	D

0-49 % F

Attendance: Attendance at lectures is strongly encouraged, although formal class attendance will not be taken. Homework assignments will be assigned throughout the course (usually without prior warning), and may be due at the next lecture meeting. Thus, missing a lecture may result in an incomplete homework assignment. No make up exams will be given since one of the midterm exams is automatically dropped. There will be no make-up for missed homework assignments.

Academic Integrity:

Students are reminded of the Code of Conduct (Section 3a of the Golden Rule document) that is available for full review at www.goldenrule.sdes.ucf.edu

Disability access: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester (by the end of the second week) to discuss needed accommodations. No accommodation will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.”

Lecture schedule (Tentative – may change during the course as needed)

Date	Topic	Chapter
22-Jan	Introduction and syllabus overview	
	Fundamentals of Neuroscience	1
	Basic Plan of the Nervous System	2
24-Jan	Cellular Components of Nervous Tissue	3
29-Jan	Subcellular Organization of the Nervous System: Organelles and Their Functions	4
31-Jan	Electrical Properties of Axons and dendrites	5
	Membrane Potential and Action Potential	6
5-Feb	Review and discussion	
7-Feb	Exam #1 - during class period	
12-Feb	Neurotransmitters	7
14-Feb	Release of neurotransmitters	8
19-Feb	Neurotransmitter Receptors	9
	Intracellular Signaling	10
21-Feb	Postsynaptic Potentials and Synaptic Integration	11
26-Feb	Review and discussion	
28-Feb	Exam #2 - during class period	
5-Mar	Spring Break	
7-Mar	Spring Break	
12-Mar	Complex Information Processing in Dendrites	12
14-Mar	Brain Energy Metabolism	13
19-Mar	Neural Induction and Pattern Formation	14
21-Mar	Review and discussion	
26-Mar	Exam #3 - during class period	
28-Mar	Cellular Determination	15

2-Apr	Neurogenesis and Migration	16
	Growth Cone and Axon Pathfinding	17
4-Apr	Target Selection Topographic Maps and synapsis formation	18
9-Apr	Programmed Cell Death and Neurotrophic Factors	19
11-Apr	Review and discussion	
16-Apr	Exam #4 - during class period	
18-Apr	Synapse elimination	20
23-Apr	Dendritic Development	21
25-Apr	Review and discussion	
1-May	Final exam as per UCF schedule	

The Burnett School of Biomedical Sciences Statement on Academic Integrity

The Burnett School of Biomedical Sciences holds students to the highest standards of academic conduct. Without exception, students who violate these standards will be reported to the Office of Student Conduct. It is critical that students read and understand the Rules of Conduct described in the student handbook, "The Golden Rule."

This document describes examples of student misconduct, but the faculty of the Burnett School of Biomedical Sciences want to convey the following positive message to our students:

- The lifelong pursuit of a professional career in biomedical science and its related disciplines is achieved through one's own hard work.
- If you encounter difficulties in your courses of study, cheating is not the solution. Seek assistance from your instructor, early and often.
- If you devote the necessary energy and resources to your study, and you are prepared for the coursework, you can achieve success.

Students will be reported to the Office of Student Conduct and disciplinary action will be taken for violation of the following rules. Each rule is stated in full in the Golden Rule document. Here we provide examples that relate best to our courses and discipline.

The following (1-6) are violations of the Rules of Conduct and are prohibited:

1. Unauthorized assistance

Examples:

- A student copies another student's answers during an exam.
- A student uses notes or electronic devices during an exam when they are not allowed.
- A student obtains a lab report from another student who previously took the course, and uses the materials to complete a lab assignment for the class. Both students are in violation of the Rules of Conduct.

- Two students work together on an online assignment or exam when they were instructed to work alone.

2. Communication to another through written, visual, electronic or oral means

Example: Two students are working on an assignment in the library that the instructor has assigned as an individual assignment. One student is finished with the assignment and offers to allow the second student to use the webpage he has found which contains information related to the assignment. Both students are in violation of the Rules of Conduct.

Commercial use of academic material

Examples:

- A student takes an extra copy of an exam and sells it to another student.
- A student offers to sell lab reports and class notes on a website, and sells them to the highest bidder. Both the student who sold the materials and the student who purchased them are in violation of this rule.
- A student sells class notes to a note-taking service who sells these notes to other students in the course.

3. Falsifying or misrepresenting your academic work

Examples:

- Two students work together and share answers on a homework assignment where specific instructions to work alone were given.
- Two students who are lab partners shared the results of a lab session. They collaborated during the process of writing the lab report and are consequently in violation of this rule.

4. Plagiarism: Whereby another's work is used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own

Examples:

- Text taken verbatim from any source and presented as a student's own original work, including the course book and lab manual, is plagiarism.
- Copying and pasting existing text, either through electronic means or otherwise, and editing the copied text is plagiarism.
- Quotations must be used around text taken verbatim and the source must be cited. While not plagiarism per se, the inclusion of numerous quotes is strongly discouraged, and quotes may even be prohibited by the instructor. Ask the instructor when in doubt about what is acceptable on an assignment.
- Note: Assignments will be evaluated by analytical software to detect plagiarism.

5. Any student who knowingly assists another to violate the academic behavior standards listed above is also in violation of the Rules of Conduct
6. **Disciplinary Actions:**
BSBS will take full disciplinary action against student misconduct.
 - Violation of any of the Rules of Conduct indicated above on an exam, assignment, or report will automatically result in a score of zero for that exam, assignment, or report and a lowering of the final grade for the course by one letter grade. Grave violations of the rules, at a minimum, may result in a final grade of F for the course.
 - The student's misconduct will be reported to the Office of Student Conduct, which may result in additional penalties such as suspension or expulsion from UCF

MCB 4XXX
Cellular and Molecular Neuroscience – Undergraduate Level
Spring 2012
Dr. Alvaro G. Estévez
Dr. Yoon-Seong Kim

Lecture: TBA
Location: TBA

Contacting the Professor: Alvaro G. Estevez, Ph.D.

Office: Lake Nona BBS 241

Office hours: MW 3:30-5:00 PM, F 3:00-5:00 PM

You are strongly encouraged to make an appointment during these hours by e-mail in advance to gain access to this area of BMS building due to security requirements

E-mail: aest@mail.ucf.edu

Course Text: Fundamental Neuroscience, Third Edition (2008) by Larry R. Squire, Drawin Berg, Floyd E. Bloom, Sacha du Lac, Anirvan Ghosh and Nicholas C. Spitzer. Additional handout material will be given during the course and lecture notes will be posted on WebCT prior to class whenever possible.

Requirements:

ZOO-3744 Biological principles governing the physiology of the nervous system including electrical properties, chemical signaling, cellular composition, development, injury and regeneration.

Course Description: This course will give the students a thorough understanding of the nervous tissue at the cellular and molecular level. The interactions between the different cell types and the communication between the cells is emphasized. Understanding not only of the intracellular pathway governing the communication between neurons, but the interactions of different cell populations in the nervous system to define shape and function is central to the study of the nervous system.

Course Objectives: Students will gain an advance understanding of the basic cellular components of the nervous systems and the molecular mechanisms involved in their survival and communication. The students will be taken from a refreshment of neuroscience history and the hierarchies of the nervous system to the detailed intracellular pathways involved in neurotransmission and cellular communications. The goal is for the students to understand that the regulation of the nervous systems involves more than neurons and electrical impulses, and that the final architecture and functions of the nervous systems is dependent on all its cellular components.

Grading:**Four exams:****20 % each****60%***Each covers a specific portion of course material**Lowest grade dropped automatically***Homework assignments:****Total 15%****15%****Final Exam:****25%****25%***Cumulative, with an emphasis on new material***Total****100%**

Attendance: Attendance at lectures is strongly encouraged, although formal class attendance will not be taken. Homework assignments will be assigned throughout the course (usually without prior warning), and may be due at the next lecture meeting. Thus, missing a lecture may result in an incomplete homework assignment. No make up exams will be given since one of the midterm exams is automatically dropped. There will be no make-up for missed homework assignments.

Academic Integrity:

Students are reminded of the Code of Conduct (Section 3a of the Golden Rule document) that is available for full review at www.goldenrule.sdes.ucf.edu

Disability access: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester (by the end of the second week) to discuss needed accommodations. No accommodation will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.”

Lecture schedule (Tentative – may change during the course as needed)

Date	Topic	Chapter
22-Jan	Introduction and syllabus overview	
	Fundamentals of Neuroscience	1
	Basic Plan of the Nervous System	2
24-Jan	Cellular Components of Nervous Tissue	3
29-Jan	Subcellular Organization of the Nervous System: Organelles and Their Functions	4
31-Jan	Electrical Properties of Axons and dendrites	5
	Membrane Potential and Action Potential	6
5-Feb	Review and discussion	
7-Feb	Exam #1 - during class period	
12-Feb	Neurotransmitters	7
14-Feb	Release of neurotransmitters	8
19-Feb	Neurotransmitter Receptors	9
	Intracellular Signaling	10
21-Feb	Postsynaptic Potentials and Synaptic Integration	11
26-Feb	Review and discussion	
28-Feb	Exam #2 - during class period	
5-Mar	Spring Break	
7-Mar	Spring Break	
12-Mar	Complex Information Processing in Dendrites	12
14-Mar	Brain Energy Metabolism	13
19-Mar	Neural Induction and Pattern Formation	14
21-Mar	Review and discussion	
26-Mar	Exam #3 - during class period	
28-Mar	Cellular Determination	15
2-Apr	Neurogenesis and Migration	16
	Growth Cone and Axon Pathfinding	17
4-Apr	Target Selection Topographic Maps and synapsis formation	18
9-Apr	Programmed Cell Death and Neurotrophic Factors	19
11-Apr	Review and discussion	
16-Apr	Exam #4 - during class period	
18-Apr	Synapse elimination	20
23-Apr	Dendritic Development	21
25-Apr	Review and discussion	
1-May	Final exam as per UCF schedule	

The Burnett School of Biomedical Sciences Statement on Academic Integrity

The Burnett School of Biomedical Sciences holds students to the highest standards of academic conduct. Without exception, students who violate these standards will be reported to the Office of Student Conduct. It is critical that students read and understand the Rules of Conduct described in the student handbook, "The Golden Rule."

This document describes examples of student misconduct, but the faculty of the Burnett School of Biomedical Sciences want to convey the following positive message to our students:

- The lifelong pursuit of a professional career in biomedical science and its related disciplines is achieved through one's own hard work.
- If you encounter difficulties in your courses of study, cheating is not the solution. Seek assistance from your instructor, early and often.
- If you devote the necessary energy and resources to your study, and you are prepared for the coursework, you can achieve success.

Students will be reported to the Office of Student Conduct and disciplinary action will be taken for violation of the following rules. Each rule is stated in full in the Golden Rule document. Here we provide examples that relate best to our courses and discipline.

The following (1-6) are violations of the Rules of Conduct and are prohibited:

1. Unauthorized assistance

Examples:

- A student copies another student's answers during an exam.
- A student uses notes or electronic devices during an exam when they are not allowed.
- A student obtains a lab report from another student who previously took the course, and uses the materials to complete a lab assignment for the class. Both students are in violation of the Rules of Conduct.
- Two students work together on an online assignment or exam when they were instructed to work alone.

2. Communication to another through written, visual, electronic or oral means

Example: Two students are working on an assignment in the library that the instructor has assigned as an individual assignment. One student is finished with the assignment and offers to allow the second student to use the webpage he has

found which contains information related to the assignment. Both students are in violation of the Rules of Conduct.

Commercial use of academic material

Examples:

- A student takes an extra copy of an exam and sells it to another student.
- A student offers to sell lab reports and class notes on a website, and sells them to the highest bidder. Both the student who sold the materials and the student who purchased them are in violation of this rule.
- A student sells class notes to a note-taking service who sells these notes to other students in the course.

3. Falsifying or misrepresenting your academic work

Examples:

- Two students work together and share answers on a homework assignment where specific instructions to work alone were given.
- Two students who are lab partners shared the results of a lab session. They collaborated during the process of writing the lab report and are consequently in violation of this rule.

4. Plagiarism: Whereby another's work is used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own

Examples:

- Text taken verbatim from any source and presented as a student's own original work, including the course book and lab manual, is plagiarism.
- Copying and pasting existing text, either through electronic means or otherwise, and editing the copied text is plagiarism.
- Quotations must be used around text taken verbatim and the source must be cited. While not plagiarism per se, the inclusion of numerous quotes is strongly discouraged, and quotes may even be prohibited by the instructor. Ask the instructor when in doubt about what is acceptable on an assignment.
- Note: Assignments will be evaluated by analytical software to detect plagiarism.

5. Any student who knowingly assists another to violate the academic behavior standards listed above is also in violation of the Rules of Conduct

6. Disciplinary Actions:

BSBS will take full disciplinary action against student misconduct.

- **Violation of any of the Rules of Conduct indicated above on an exam, assignment, or report will automatically result in a score of zero for that exam, assignment, or report and a lowering of the final grade for the course by one letter grade. Grave violations of the rules, at a minimum, may result in a final grade of F for the course.**

- **The student's misconduct will be reported to the Office of Student Conduct, which may result in additional penalties such as suspension or expulsion from UCF**

Graduate Council Curriculum Committee **Course Agenda for 02-04-2013**

Engineering & Computer Science Special Topics

Tabled. The committee has asked whether a higher level prerequisite was available. **EEL 6938 Sect 01 ECS-Electrical & Computer Eng 3(3,0)**

ST: Modern EDA Algorithms in VLSI: PR: EEE 3342C. This course covers all of the most important aspects of modern Electronic Design Automation (EDA) software: logic synthesis, circuit placement, and routing algorithms. Students will not only learn theory but also gain hands-on experience by doing a software project. *Occasional.*

30 of 30 character abbreviation: **ST: Mod EDA Algorithms in VLSI**

Rationale: Despite that EDA is a critical area in modern VLSI technology, currently our department has no dedicated course for this topic.

AGENDA NOTES: *Course Addition also being proposed.*

Engineering & Computer Science Course Action Additions

Tabled. The committee has asked whether a higher level prerequisite was available.

EEL 6XXX ECS-Electrical & Computer Eng 3(3,0)

Modern EDA Algorithms in VLSI: PR: EEE 3342C. This course covers all of the most important aspects of modern Electronic Design Automation (EDA) software: logic synthesis, circuit placement, and routing algorithms. Students will not only learn theory but also gain hands-on experience by doing a software project. *Spring.*

30 character abbreviation: **Modern EDA Algorithms in VLSI**

Rationale: There is a great demand from both industry and academia for students with extensive expertise in using and constructing modern EDA software. Additionally, the EDA-related algorithms and optimization methods are quite general-purpose and can be used in many engineering domain. However, our ECE department currently offers no course that is dedicated to cover the EDA area. We feel the need for adding this class especially for graduate students. Another additional benefit is that this class provides many CE and CS students with algorithm background a good opportunity to practice their learning.

AGENDA NOTES: *Special Topic also being proposed.*

Tabled. The committee asked for clarification on the 0 credit hours. **Received explanation. This will be reviewed at next meeting.**

EML 5XXX ECS-Mechanical/Matrls/Aerosp 0(0,0)

Mechanical and Aerospace Seminar: PR: Graduate Standing or C.I. The course is intended to help MAE graduate students practice public speaking, learn skills of scientific communication, expand their width of knowledge, and promote collaborations. May be repeated. *Odd Spring.*

30 of 30 character abbreviation: **Mechanical & Aerospace Seminar**

Rationale: As UCF is quickly heading to a more research-focused university, the "soft skills" of our graduate students also urgently need to be enhanced. These soft skills include public speaking,

skills of scientific communication, and width as well as depth of knowledge. This course is designed to provide such an opportunity for MAE graduate students to practise those skills and create a more research-friendly environment.

Majors taking course: Mechanical Engineering and Aerospace Engineering

AGENDA NOTES: *Special Topic also being proposed.*

Engineering & Computer Science Course Action Deletions

CCE 5815 **ECS-Civil, Envir & Const Eng** **4(4,0)**

Mechanical and Electrical Systems for Buildings: PR: C.I. This course covers the design and construction of mechanical and electrical systems for buildings. Research paper required. *Occasional.*

Rationale: This course is a duplicate of CCE 4813.

Effect on majors: -----1/11/2013: This course is not used as a prerequisite.

CEG 5015 **ECS-Civil, Envir & Const Eng** **3(3,0)**

Geotechnical Engineering II: PR: CEG 4011C. Continuation of CEG 011C with emphasis on shear strength and design factors for earth pressures, bearing capacity, and slope stability. *Occasional.*

Rationale: Is a duplicate of CEG 4012.

Effect on majors: -----1/11/2013: This course is a prerequisite for the following courses, which all will need course action revision forms; CEG 6115, CEG 6317

CGN 5320C **ECS-Civil, Envir & Const Eng** **3(2,2)**

Geographic Information systems: Programming theory and application of Geographic Information Systems to Civil Engineering projects. *Occasional.*

Rationale: Course has not been taught in the last 10 years.

Effect on majors: -----1/11/2013: This course is not used as a prerequisite.

College of Education Special Topics

EEX 6938 **Sect 01** **ED-Child, Family & Comm Sci** **3(3,0)**

ST:Diagnostic Assessment and Intervention Planning in Exceptional Education: PR: Graduate standing or C.I. This course develops advanced instructional and intervention planning and decision-making knowledge and skills using school and classroom-based instructional data in reading and mathematics. *Occasional.*

30 of 30 character abbreviation: **ST:Diagnos Assess & Interventi**

Rationale: This course will be offered in Summer 2013 as part of the new Intervention Specialist certificate program. The Special Topics course is needed to ensure that we can offer the course until the permanent course can be assigned the state number.

Discussion with others: No duplications or conflicts exist.

Majors taking course: The new course will be offered as part of the new Intervention Specialist certificate program.

AGENDA NOTES: *Course Addition also being proposed.*

EDG 5937 Sect 01 ED-Teach, Learn & Leadership 3(3,0)

ST:Instructional Coaching: PR: Students with senior standing OR graduate student standing. This course will prepare educators to become instructional coaches, developing skills and methods to impact student achievement by influencing teachers' instructional practices. *Occasional*.

30 character abbreviation: **ST:Instructional Coaching**

Discussion with others: Several measures were taken to ensure that no course duplication or conflicts are possible with this course. First, Enrique Puig, a well-known University of Central Florida professor and leader in the field of coaching, was able to confirm that there is no conflict regarding this course. Also, the University of Central Florida Modern Languages department was able to confirm that the course does not conflict with their courses. Finally, a search online for conflicts yielded no duplications or conflicts pertaining to this course.

AGENDA NOTES: Course Addition also being proposed.

College of Education Course Action Additions

EEX 6XXX ED-Child, Family & Comm Sci 3(3,0)

Diagnostic Assessment and Intervention Planning in Exceptional Education: PR: Graduate standing or C.I. This course develops advanced instructional and intervention planning and decision-making knowledge and skills using school and classroom-based instructional data in reading and mathematics. *Occasional*.

29 of 30 character abbreviation: **Diagnos Assess & Intervention**

Rationale: The course will be offered as part of the new Intervention Specialist certificate program.

Majors taking course: The new course will be offered as part of the new Intervention Specialist certificate program.

AGENDA NOTES: Special Topic also being proposed.

SPS 5XXX ED-Educational & Human Sci 3(3,0)

Building and Improving Relationship and Emotional Intelligence: PR: C.I. Students will learn to develop and improve relational and emotional intelligence and demonstrate an understanding of social emotional learning and how it enhances psychosocial wellbeing. *Odd Spring*.

30 of 30 character abbreviation: **Building & Improving Relations**

Rationale: Currently, the program requires students to take and pass the following two courses: SPS 6703 Child and Adolescent Deviant Behavior and Treatment (3 credit hours) and SPS 6175 Cultural Diversity and Nonbiased Assessment (3 credit hours). These courses emphasize a negative perspective in school psychology. Contemporary psychology encourages a positive perspective regarding individual development and differences. In order to offer students a balanced dual-factor model (positive and pathological) approach to individual development and differences, we are proposing adding two more specialized courses and offering students the opportunity to choose two courses from among these four courses for the required 6 semester hours of credit: SPS 6703 and SPS 6175 as well as SPS 5XXX Enhancing Individual and Student IQ (3 credit hours) and SPS 5XXX Building and Improving Relationship and Emotional Intelligence (3 credit hours). These latter two courses will offer students an opportunity to

understand and promote individual development and differences from a dual-factor model of mental health.

Majors taking course: School Psychology

SPS 5XXX ED-Educational & Human Sci 3(3,0)

Enhancing Individual and Student IQ: PR: C.I. Students will understand IQ malleability and methods of enhancing IQ. Students will analyze acquisition of knowledge gained from methods of scientific inquiry regarding individual differences. *Even Spring.*

28 of 30 character abbreviation: **Enhancing Indiv & Student IQ**

Rationale: Currently, the program requires students to take and pass the following two courses: SPS 6703 Child and Adolescent Behavior and Treatment (3 credit hours) and SPS 6175 Cultural Diversity and Nonbiased Assessment (3 credit hours). These courses emphasize a negative perspective in school psychology. Contemporary psychology encourages a positive perspective regarding individual development and differences. In order to offer students a balanced dual-factor model (positive and pathological) approach to individual development and differences, we are proposing adding two more specialized courses and offering students the opportunity to choose two courses from among these four courses for the required 6 semester hours of credit: SPS 6703 and SPS 6175 as well as SPS 5XXX Enhancing Individual and Student IQ (3 credit hours) and SPS 5XXX Building and Improving Relationship and Emotional Intelligence (3 credit hours). These latter two courses will offer students an opportunity to understand and promote individual development and differences from a dual-factor model of mental health.

Majors taking course: School Psychology

EDG 5XXX ED-Teach, Learn & Leadership 3(3,0)

Instructional Coaching: PR: Students with senior standing OR graduate student standing. This course will prepare educators to become instructional coaches, developing skills and methods to impact student achievement by influencing teachers' instructional practices. *Occasional.*

30 character abbreviation: **Instructional Coaching**

Rationale: The National Council on Teacher Quality (2012) found that in a typical school year teachers make approximately 11,000 important decisions regarding the instruction students receive. Research suggests that site based instructional coaches (sometimes referred to as reading or literacy coaches) can positively impact student success by influencing the instructional practices of teachers (Knight, 2007; Joyce & Showers, 1982; Coskie & Robinson, 2004). Instructional coaches are typically federally funded positions that are generally populated by highly skilled teacher

Discussion with others: Several measures were taken to ensure that no course duplication or conflicts are possible with this course. First, Enrique Puig, a well-known University of Central Florida professor and leader in the field of coaching, was able to confirm that there is no conflict regarding this course. Also, the University of Central Florida Modern Languages department was able to confirm that the course does not conflict with their courses. Finally, a search online for conflicts yielded no duplications or conflicts pertaining to this course.

AGENDA NOTES: Special Topic also being proposed.

College of Education Course Action Deletions

Tabled. This course is a prerequisite for two other courses in Education. Additional paperwork from them will be forthcoming.

EDG 6236 ED-Teach, Learn & Leadership 3(3,0)

Principles of Instruction: PR: C.I. The analysis and application of selected concepts and theories of learning in relation to curriculum design, classroom strategies, and instructional techniques. *Fall, Spring.*

Effect on majors: -----11/13/2012: This course is a prerequisite for the following courses, which all will need course action revision forms: **LAE 5337 and LAE 5338.**

Health & Public Affairs Special Topics

PAD 6938 Sect 01 HPA-Public Administration 3(3,0)

ST:Ethics and Governance in Philanthropy: PR: Admission to Nonprofit Management degree or certificate program or Fundraising certificate program. Fundamental issues and current smart practices of nonprofit organization governance in a contest of ethical and accountable decision making. Includes board and leadership development and role of volunteers. *Occasional.*

30 of 30 character abbreviation: **ST:Ethics & Govern Philanthrop**

Rationale: Core course in new Graduate Certificate in Fundraising

Discussion with others: N/A

Majors taking course: Newly developed Graduate Certificate in Fundraising.

AGENDA NOTES: Course Addition also being proposed.

PAD 6938 Sect 01 HPA-Public Administration 3(3,0)

ST:Fundraising as a Profession: PR: Admission to Nonprofit Management degree or certificate program or Fundraising certificate program or CI. Examines principles involved in fundraising profession including current trends and best practices utilized by professional fundraisers. Topics include donor research, psychology of giving and volunteer involvement. *Occasional.*

30 character abbreviation: **ST:Fundraising as a Profession**

Rationale: Core course in new Graduate Certificate in Fundraising

Discussion with others: N/A

Majors taking course: Newly developed Graduate Certificate in Fundraising

AGENDA NOTES: Course Addition also being proposed.

Health & Public Affairs Course Action Additions

PAD 6XXX HPA-Public Administration 3(3,0)

Ethics and Governance in Philanthropy: PR: Admission to Nonprofit Management degree or certificate program or Fundraising certificate program. Fundamental issues and current smart practices of nonprofit organization governance in a contest of ethical and accountable decision making. Includes board and leadership development and role of volunteers. *Fall.*

28 of 30 character abbreviation: **Ethics & Govern Philanthropy**

Rationale: This is a core course in the proposed Graduate Certificate in Fundraising.

Discussion with others: N/A

Majors taking course: Newly developed Graduate Certificate in Fundraising.

AGENDA NOTES: Special Topic also being proposed.

PAD 6XXX HPA-Public Administration 3(3,0)

Fundraising as a Profession: PR: Admission to Nonprofit Management degree or certificate program or Fundraising certificate program. Examines principles involved in fundraising profession including current trends and best practices utilized by professional fundraisers. Topics include donor research, psychology of giving and volunteer involvement. *Spring.*

30 character abbreviation: **Fundraising as a Profession**

Rationale: This is a required course in the proposed Graduate Certificate in Fundraising

Discussion with others: N/A

Majors taking course: Newly developed Graduate Certificate in Fundraising

AGENDA NOTES: Special Topic also being proposed.

PAD 6XXX HPA-Public Administration 3(3,0)

Philanthropy, Fundraising and Social Entrepreneurship: PR: Admission to Nonprofit Management degree or certificate program or Fundraising certificate. History of philanthropy, principles of fundraising, role of professional fundraiser and emerging strategy of social entrepreneurship. *Occasional.*

30 of 30 character abbreviation: **Philanthropy Fund & Soc Entrep**

Rationale: Course is required for proposed Graduate Certificate in Fundraising

Discussion with others: The course is currently being offered as a special topics in the School of Public Administration. There are no conflicts or duplications with other departments.

Majors taking course: Newly developed Fundraising Graduate Certificate program.

College of Medicine Course Action Additions

Tabled. Split class. Will review at next meeting.

ZOO 5XXX COM-Molecular & Microbiology 3(3,0)

Cellular and Molecular Neuroscience: PR: Graduate Standing. An advanced and thorough course providing understanding of the cellular components and molecular signaling pathways involved in the nervous system function. *Spring.*

29 of 30 character abbreviation: **Cellular & Molecular Neurosci**

Rationale: The course provides thorough understanding of the cellular components and molecular signaling pathways involved in the nervous system function.

Majors taking course: Biomedical Sciences MS, Ph.D., Biology MS

Rosen College Hospitality Mgmt Course Action Additions

HFT 6XXX RCHM-Tourism, Events & Attract 3(3,0)

Mega-Events: PR: HFT 6797. The organization and administration of mega-events. The tourism impacts of the events on the destinations that host them. *Occasional*.

30 character abbreviation: **Mega-Events**

Rationale: The Rosen College of Hospitality Management will be proposing a nine credit hour graduate certificate in Event Management. At present, there are only two event related courses in the graduate curriculum. This course may be the required third course in the certificate.

Discussion with others: Dr. Richard Lapchick, Director of the MBA in Sport Management, supports this course offering.

Majors taking course: Hospitality

College of Business Adm Course Action Revisions

MAN 6245 Organizational Behavior and Development 3(3,0)

PR: CBA master's program of study foundation ~~core~~ core or C.I.

The analysis of human behavior in organizations in terms of the individual, small group, intergroup relationships, and the total organization.

College of Nursing Course Action Revisions

Tabled. Committee has requested the revision for this course as nothing was listed. Received explanation. Only change was from elective to required. This will be reviewed at next meeting.

NGR 7778L Advanced Leadership Selective for DNP 3(0,3)

PR: Admission to the Doctor of Nursing Practice, Executive Doctor of Nursing Practice track or C.I.

Application of evidence-based management processes to support decision making in the health care environment. Graded S/U. May be used in the degree program a maximum of 2 times.

Engineering & Computer Science Course Action Revisions

TABLED. Clarification requested on why these fees should be materials and supplies fees instead of equipment fees.

EAS 5407C Mechatronic Systems 3(2,3)

PR: EML 3034C.

Discrete control techniques for aerospace mechatronic systems. Controller design, test and evaluation.

Materials & Supply Fee addition proposed: \$43.02

EML 5271 Intermediate Dynamics 3(3,0)

~~PR: EML 3321.~~ PR: EGN 3321 or EML 3217.

Dynamics of particles, rigid bodies, and distributed mass systems. Hamilton's principle. Lagrange's equations. Numerical methods. Mechanisms.

Rationale: PR update

College of Education Course Action Revisions

SPS 6948 School Psychology Internship

6(0,6)

PR: Graduate admission and C.I.

~~Supervised placement in school setting. Graded S/U.~~

Supervised placement in school setting. Graded S/U. May be used in the degree program a maximum of 6 times.

Will now be repeatable for credit.