### Accelerated Undergraduate-Graduate Programs

**Industrial Engineering - Accelerated**

**Undergraduate-Graduate Program (B.S.I.E. / M.S.I.E.)**

**College of Engineering and Computer Science**
**Department of Industrial Engineering and Management Systems, Engineering II, Room: 312**

http://www.iems.ucf.edu/

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#### Admission Requirements
- See Common Program Prerequisites
- Qualified students may apply after completion of a minimum of 60 credit hours
- Admission to the Accelerated Program does not guarantee formal admission to the MSIE program.
- Admission is not automatic. Interested students may need to be interviewed.

#### Degree Requirements
- None

1. **UCF General Education Program (GEP) (38 hrs)**
   - See Industrial Engineering major is the Catalog for track specific GEP requirements.
   
   A: Communication Foundations (9 hrs)
   - B: Cultural & Historical Foundations (9 hrs)
   - C: Mathematical Foundations (7 hrs)
   - D: Social Foundations (6 hrs)
   - E: Science Foundations (7 hrs)

2. **Common Program Prerequisites (CPP) (19 hrs)**
   - See Industrial Engineering major in the Catalog for the CPP requirements.
   - See “Common Prerequisites” in the Transfer and Transitions section for more information.

3. **Core Requirements: Basic Level (60 hrs)**
   - Industrial Engineering Core: Basic 2 hrs
   - The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.250 GPA in completing the core courses required for the major, together with the restricted electives and senior design courses listed below.

   EGS 1006C Introduction to the Engineering Profession 1 hr
   EGN 1007C Engineering Concepts and Methods 1 hr

4. **Core Requirements: Advanced Level (59 hrs)**
   - Graduate courses used to complete the Accelerated BS to MS will be chosen in consultation with the graduate advisor. The courses listed in this example are relevant to the Engineering Management MS. A “C” (2.0) or better is required in all courses listed in this section with a prefix of EIN, ESI, STA and MAS. A “B” (3.0) or better is required for 5000/6000 level courses to be transferred for graduate credit.

   EIN 2002 Introduction to Industrial Engineering and Management Systems 1 hr
   EIN 3223C Introduction to Programming with C 3 hrs
   EIN 3310 Engineering Analysis-Statics 3 hrs
   EIN 3321 Engineering Analysis-Dynamics 3 hrs
   EIN 3373 Principles of Electrical Engineering 3 hrs
   EIN 5108 The Environment of Technical Organizations 3 hrs
   STA 3032 Probability and Statistics for Engineers GEP
   MAS 3105 Matrix and Linear Algebra 4 hrs
   EIN 3314 Work Analysis and Design 3 hrs
   EIN 3351 Engineering Economic Analysis and Cost Engineering 3 hrs
   ESI 4221 Empirical Methods for Industrial Engineering 3 hrs
   ESI 4234 Quality Engineering 3 hrs
   EIN 4243C Human Engineering 3 hrs
   EIN 4333 Production and Distribution Systems 3 hrs
   EIN 4364 Facilities Planning 3 hrs
   1 Courses with significant programming content in C, C++ or Java may be used to satisfy this requirement but must be approved by the IEMS undergraduate coordinator.
   2 Substitute for EIN 5219
   3 Substitute for ESI 4628
   4 Substitute for ESI 4523C

5. **Restricted Electives (6 hrs)**
   - Three (3) hours of technical electives must be either EIN 5140 Project Engineering or ESI 5219 Engineering Statistics which are required core requirements in the MSIE program. Another three (3) hours of technical elective may be taken at the 5000 level as a substitute for any of the 3 courses specified in the core requirements for the BSIE. Students should consult with their assigned academic advisor for a list of the approved technical electives and the terms when specific courses of this type are to be offered.

6. **Capstone Requirements**
   - None

7. **Foreign Language Requirements**
   - Admissions
     - Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.
   - Graduation
     - None
   - Electives
     - None

8. **Electives**
   - None

9. **Additional Requirements**
   - None

10. **Required Minors**
    - None

11. **Departmental Exit Requirements (4 hrs)**
    - EIN 4891C Industrial Engineering Senior Design Project

12. **University Minimum Exit Requirements**
    - A 2.0 UCF GPA
    - 60 semester hours earned after CLEP awarded
    - 48 semester hours of upper division credit completed
    - 30 of the last 39 hours of course work must be completed in residency at UCF.
    - A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
    - Complete the General Education Program, the Gordon Rule, and nine hours of Summer credit.

**Total Undergraduate Hours Required**
- 128

**Total Combined Hours Required**
- 146

**Honors In Major**
- None

**Related Programs**
- None

**Certificates**
- None

**Related Minors**
- None

**Advising Notes**
- The following will be waived for this joint degree program:
  - The limit of nine hours to be shared between undergraduate and graduate programs.
  - Undergraduate students taking graduate courses must be within nine hours of graduation.
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- Undergraduate students taking graduate courses must not register for more than a total of twelve hours in that semester.
- Undergraduate students are not eligible to take 6000-level courses.

Transfer Notes
- None

Acceptable Substitutes for Transfer Courses
- None

Shared Courses
- Up to 12 credit hours of approved 5000 and 6000 level courses of grades B (3.0) or better may be counted towards the BS and Masters degrees. These 12 credit hours will meet either technical elective or course requirements for the major. The 5000 level courses listed in the plan above are examples. Contact the Graduate Coordinator in the Industrial Engineering and Management Systems department for a list of acceptable courses.

Graduate Courses Link
- None

Program Academic Learning Compacts
- Program Academic Learning Compacts (student learning outcomes) for undergraduate programs are located at: http://www.oelas.ucf.edu/alc/academic_learning_compacts.htm

Equipment Fees
- Part-Time Student: $38 per term
- Full-Time Student: $77 per term