Industrial & Systems Engineering (ME)

M.E. in Industrial and Systems Engineering Mission

Below are the missions of our university, college, and department, respectively.

The University's mission is available in the UF Catalog. Below is an abbreviated version:

"*The University of Florida's mission includes the following interlocking elements:*

- ***Teaching*** *is a fundamental purpose of this university at both the undergraduate and graduate levels.*
- ***Research and scholarship*** *are integral to the education process and to the expansion of our understanding of the natural world, the intellect and the senses.*
- ***Service*** *reflects the university's obligation to share the benefits of its research and knowledge for the public good.*

These three span all of the university's academic disciplines and represent the university's commitment to lead and serve the state of Florida, the nation and the world by pursuing and disseminating new knowledge while building upon the experiences of the past. The University of Florida aspires to advance by strengthening the human condition and improving the quality of life."

The College of Engineering Mission:
The College of Engineering fosters and provides world-class programs in engineering education, research and service to enhance the economic and social well-being of the citizens of Florida, the nation and the world.

Industrial and Systems Engineering Department's Mission:

The Department's mission is to develop critical thinkers and provide Industrial Engineering and Operations Research solutions for complex analytical problems in business, government and society in general.

Responsible Roles: Associate Chair (Akcali, Elif)
Program: Industrial & Systems Engineering (ME)

Progress:

2016-17 PG 1: Advanced Skills

Give graduates advanced analytical skills in areas of industrial engineering, manufacturing and operations
research.

Evaluation Method

Midterm and/or final exam scores in one of the following courses

- ESI 6323 Models for Supply Chain Management
- EIN 6336 Advanced Production and Inventory Control
- EIN 6392 Manufacturing Management
- EIN 6470 Principles of Manufacturing Systems Engineering

Rubric: The goal is achieved if at least 75% of the students in one of the above four courses* receive 75% of their midterm and/or final exam scores .

*Note: Our plan is to choose the course with the largest enrollment for the evaluation.

Responsible Role: Associate Chair (Akcali, Elif)

Progress:

2016-17 PG 2: Research and Development

Prepare students for supervised research and development in area of specialization (industrial engineering,
engineering management, manufacturing, and operations research).

Evaluation Method

Master's projects/theses.

Rubrics:

The goal is achieved if at least 75% of the Master's projects/theses received a B or better or approved by the supervising committee.

Responsible Role: Associate Chair (Akcali, Elif)

Progress:

2016-17 PG 3: Diversity

Recruit and educate a diverse student population.

Evaluation Method

Number of females and underrepresented minorities matriculating into the degree.

Rubrics:

The goal is achieved if at least 20% of graduating students are female and 10% are underrepresented minorities.

Responsible Role: Associate Chair (Akcali, Elif)
Progress:

~~2015-16 PG 3: Continuing Education~~

~~Provide mechanisms for continuing education beyond the baccalaureate level. Provide distance learning opportunities for engineers.~~
~~**Evaluation Method**~~

~~Exit Surveys for Outreach Engineering Management (OEM) and other distance-learning program (e.g., EDGE).~~

~~Rubric:~~

~~The goal is achieved if at least 75% of the respondents give an overall program rating 4 or higher.~~
~~**Responsible Role:** Associate Chair (Akcali, Elif)~~
~~**Progress:**~~

~~2016-17 PG 4: International Aspects~~

~~Acquaint students with international aspects of industrial and systems engineering problems and the profession.~~

~~Evaluation Method~~

~~Number of departmental seminars given by speakers from abroad and exit survey.~~

- ~~Rubrics: The goal is achieved if the following are true.~~

1. ~~If at least 75% of the graduating students indicated on the survey that they are adequately acquainted with international aspects of industrial and systems engineering problems and the profession.~~
2. ~~There were at least 5 departmental seminars given by speakers from abroad during the past academic year.~~

~~Responsible Role:~~ ~~Associate Chair (Akcali, Elif)~~
~~Progress:~~

2016-17 SLO 1: Knowledge

Proficiency in the core methodological and application areas of operations research and industrial engineering, including mathematical modeling and analysis of business problems, customized development of solutions for these problems, and the use of information technologies for solution delivery.

SLO Area (select one): Knowledge (Grad)
Responsible Role: Associate Chair (Akcali, Elif)
Progress:
Assessment Method

Midterm and/or final exam grades from the following two courses:

- ESI 6314: Deterministic Methods of Operations Research
- ESI6321: Applied Probability Methods in Engineering.

Rubric: The outcome is achieved if.

1. At least 75% of the students receive 75% or better on their midterm and/or final exams in ESI 6314.
2. At least 75% of the students receive a B or better on their midterm and/or final exams in ESI 6321.

2016-17 SLO 2: Skills

Ability to apply methodology in the customized development of solutions for business problems, and the use of information technologies for solution delivery.
SLO Area (select one): Skills (Grad)
Responsible Role: Associate Chair (Akcali, Elif)
Progress:
Assessment Method

Term project grades in either one of the following courses

- ESI 6355 Decision Support Systems in ISE
- EIN 6905 Master's Project

Rubric: The outcome is achieved if at least 75% of the students in ESI 6355 received 75% or better on their term projects.

2016-17 SLO 3: Professional Behavior

Ability to effectively and professionally communicate industrial engineering concepts and information in written and oral forms.
SLO Area (select one): Professional Behavior (Grad)
Responsible Role: Associate Chair (Akcali, Elif)
Progress:
Assessment Method

Term project report and in-class presentation grades in either one of the following courses

- ESI 6529 Digital Simulation Techniques or
- EIN 6905 Master's Project

Rubric: The outcome is achieved if at least 75% of the students receive 75% or better on their term project report and in-class presentation.

M.E. in Industrial and Systems Engineering Detail

Start: 7/1/2016
End: 6/30/2017
Progress: Completed
Providing Department: Industrial & Systems Engineering (ME)
Responsible Roles: Associate Chair (Akcali, Elif)
Research (Graduate and Professional AAPs only)
The project course described in our skills section of the student learning outcomes allows students to apply their knowledge to a given course project.
Assessment Timeline (Graduate and Professional AAPs only)
See the attached.

- MS Assessment Timeline

Curriculum Map (UG AAPs only)
Not required.
Assessment Cycle (All AAPs)

See the attached.

- MS Assessment Cycle

Methods and Procedures (UG and Certificate AAPs)
Not required.
SLO Assessment Rubric (All AAPs)
See the attached.

- MS Assessment Rubrics

Measurement Tools (Graduate and Professional AAPs Only)
See the attached.

- MS Assessment methods

Assessment Oversight (All AAPs)
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Academic Assessment Plan Entry Complete: ☑