

## Admission Requirements

1. ABET-accredited bachelor of science degree in engineering.
2. A minimum undergraduate GPA of 3.0.
3. GRE minimums of 400 on Verbal, 500 on Quantitative and 1,000 overall.
4. GRE minimum Analytical Writing score of 4.0.
5. Undergraduate Engineering Statistics and Engineering Economy courses.

### Notes:

The systems engineering and engineering management programs require 2 years of relevant work experience before students will be considered for full-time study.

Applicants who have successfully completed the Fundamentals of Engineering examination may use this in place of the GRE.

The GRE may be waived for applicants who have met all other requirements and who have a minimum of 5 years of relevant professional experience.

Outstanding graduates (minimum GPA of 3.5) from other technical fields may be considered for unconditional admission to the programs after they have completed the undergraduate prerequisite courses.

Exceptional students who do not meet GPA and course prerequisites may be granted a conditional admission to the program.

*Industrial and Systems Engineering  
and Engineering Management Department  
N143 Technology Hall  
Huntsville, AL 35899*



Master of  
Science in  
Engineering

## *Industrial Engineering Concentration*

*Industrial and Systems Engineering  
and Engineering Management  
Department  
N143 Technology Hall  
Huntsville, AL 35899*

*256.824.6256  
www.iseem.uah.edu*



## Our Mission

To provide integrated, applications-oriented education and research programs in the areas of industrial engineering, systems engineering, and engineering management

### Industrial Engineering:

The industrial engineering concentration meets the needs of new and practicing engineers who desire to broaden their analytical skills to expand the technical opportunities in their careers. A focus in operations research is also available

### Systems Engineering:

The systems engineering concentration focuses on practicing engineers who are developing and fielding large-scale complex systems and are seeking to enhance their analytical and managerial skills.

### Engineering Management:

The engineering management concentration has been developed to meet the needs of practicing engineers who are performing management or project management without the benefit of a formal education in these areas.

## Program Delivery Options

Graduate students may elect to take classes through either a traditional classroom setting or by distance learning. Both delivery approaches are supported by class web support sites and electronic smartboard capture.

**Website:** [www.engdl.uah.edu](http://www.engdl.uah.edu)

**Phone:** 256-824-6976

## Sample Program of Study for the Industrial Engineering Concentration

### Major Courses (12 credit hours):

ISE 626 Introduction to Operations Research  
ISE 641 Advanced Quality Control  
ISE 726 Systems Modeling  
ISE 723 Engineering Economic Analysis

### 1<sup>st</sup> Minor (6 credit hours):

ISE 690 Statistical Methods for Engineers  
ISE 526 Design and Analysis of Experiments

### 2<sup>nd</sup> Minor (6 credit hours):

Course sequences are available in engineering management, industrial engineering, operations research, quality engineering, and reliability. Students may also select courses outside the department.

### Options for Electives (6 to 12 credit hours):

Plan I – Thesis Option (6 to 9 thesis credit hours). This supports students who enjoy planning and executing independent research work. Students who are working in research and development, or are planning to continue on to the doctoral program are encouraged to consider the thesis option.

Plan II – Non-Thesis Capstone Option (9 credit hours of elective courses and a 3 credit hour research paper). This supports part-time students who wish to broaden their education and still learn the fundamentals of research.

Plan IIB – Non-Thesis Capstone Option (12 credit hours of elective courses). This option supports the part-time student who is limited in research options due to travel or organizational issues.

### Degree Requirements:

Courses are selected by the student and their academic advisor, and approved by the Graduate School. Additional courses may be required to address deficiencies and for students who have English as a second language. A minimum GPA of 3.0 and a minimum of a “B” on all 500 level courses on the program of study is required.

## Faculty and Areas of Specialization

**Dr. Paul J. Componation, Professor**  
256.824.6738

[Paul.Componation@uah.edu](mailto:Paul.Componation@uah.edu)

Systems Engineering: Product and system development, engineering economic analysis

**Dr. Phillip A. Farrington, Dean and Professor**  
256.824.6474

[paf@eng.uah.edu](mailto:paf@eng.uah.edu)

Industrial Engineering: Product development, design and analysis of experiments

**Dr. Sampson E. Gholston, Associate Professor**  
256.824.7310

[gholston@ise.uah.edu](mailto:gholston@ise.uah.edu)

Industrial Engineering: Statistics, lean, six-sigma

**Dr. Sherri L. Messimer, Associate Professor**  
256.824.6211

[messimer@ise.uah.edu](mailto:messimer@ise.uah.edu)

Industrial Engineering: Manufacturing, operations research

**Dr. Gillian M. Nicholls, Assistant Professor**  
256.824.6637

[Gillian.Nicholls@uah.edu](mailto:Gillian.Nicholls@uah.edu)

Industrial Engineering: Operations Research, multi-criteria decision analysis

**Dr. James J. Swain, Chair and Professor**  
256.824.6749

[jswain@ise.uah.edu](mailto:jswain@ise.uah.edu)

Industrial Engineering: Statistics, simulation, operations research

**Dr. Donald D. Tippett, Associate Professor**  
256.824.6895

[tippett@ise.uah.edu](mailto:tippett@ise.uah.edu)

Engineering Management: Project management, change management

**Dr. Dawn R. Utley, Associate Professor**  
256.824.6075

[utley@ise.uah.edu](mailto:utley@ise.uah.edu)

Engineering Management: Organizational culture, team operations