



Master of Science in Operations Research

The University of Alabama in Huntsville

Department of Industrial and Systems Engineering
and Engineering Management

Technology Hall, Room N143, Huntsville, AL 35899

Ph: (256) 824-6256, Fax: (256) 824-6608/6733

Master of Science in Operations Research

The Master of Science in Operations Research program is concerned with optimization, stochastic systems analysis, and operations research applications. Areas of application include large-scale systems analysis, analysis of urban and socioeconomic systems, and management sciences. This program is open to students who do not hold an Engineering undergraduate degree. The requirements for admission to this program conform to policies of the School of Graduate Studies. In addition, the following are required: (1) a minimum score of 500 on the quantitative portion of the GRE and (2) mathematics through calculus (MA 201 – Calculus C).

Required Core Courses: ISE 626 Introduction to Operations Research
(12 hours) ISE 726 Systems Modeling

Select two of the following:

ISE 547 Introduction to Digital Simulation

ISE 638 Reliability Engineering

ISE 647 System Simulation

ISE 734 Value and Decision Theory

ISE 738 Reliability, Availability, and Maintainability

1st Minor:
(6 hours)

Select from the following areas:

Manufacturing Systems

Quality Engineering

Systems Engineering

Operations Research

Reliability Engineering

Systems Simulation

Engineering Management

(Others on approval of committee)

2nd Minor:
(6 hours)

ISE 526 Design and Analysis of Experiments

ISE 690 Statistical Methods for Engineers

(These classes fulfill the math/stat 2nd minor requirements)

Plan II Option:

Electives (9hrs) and ISE 697: Approval of Committee

Further Information:
Dr. James J. Swain

Phone:
(256) 824-6749

Email:
jswain@ise.uah.edu

PROGRAM OF STUDY

Plan I – Thesis Option

A minimum of 24 semester hours of coursework and a thesis (6 to 9 hours) must be completed

Plan II – Non-Thesis Option

A minimum of 33 hours of coursework and a final project paper (3 to 6 hours) must be completed. Exit Exam is over the Capstone paper.

Plan II-Non-Thesis (Coursework) Option

A minimum of 36 hours of coursework must be completed. Exit Exam is over coursework.

DEGREE REQUIREMENTS

1. Average grade on courses numbered 600 or above cannot be less than “B”.
2. Courses numbered between 500 and 599 may be taken for graduate credit; however, a minimum grade of “B” must be attained in each course. All courses on the Program of Study are selected by the student with the counsel of an advisor and are subject to the usual approvals at the Department, College and Graduate School levels. Additional coursework may be required to correct any deficiencies in undergraduate studies. Refer to the UAH catalog for details.

ADMISSION REQUIREMENTS

The requirements for admission to this program shall conform to policies of the Graduate School of the University. In addition, the following are required.

- 1) Undergraduate GPA of 3.0 or better
- 2) A minimum score of 500 on the quantitative portion of the general Graduate Record Examination (GRE).
- 3) Mathematics through three semesters of calculus (MA 201 or equivalent).
- 4) Three hours of either applied or mathematical statistics (ISE 390 or the equivalent).

Students who do not meet the above requirements may be admitted conditionally.