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) 824-6976, 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 635 Linear Programming
ISE 638 Reliability Engineering
ISE 647 System Simulation
ISE 728 Optimization Methods in Operations Research
ISE 729 Advanced Nonlinear Programming
ISE 732 Industrial Forecasting and Analysis
ISE 734 Value and Decision Theory
ISE 735 Discrete Optimization
ISE 738 Reliability, Availability, and Maintainability

1st Minor: Select from the following areas:
(6 hours)

Manufacturing Systems	Operations Research
Quality Engineering	Reliability Engineering
Systems Engineering	Systems Simulation

Engineering Management
(Others on approval of committee)

2nd Minor: ISE 526 Design and Analysis of Experiments
(6 hours) 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:	Phone:	Email:
Dr. James J. Swain	(256) 824-6749	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.