

# OPERATIONS MANAGEMENT, MS

Operations management focuses on the analysis, design, and management of the operations that produce and deliver goods and services. It applies structured, quantitative techniques to analyze and design business operations and to support effective business decision making. Operations management helps evaluate and select actions based on information, process analysis, and quantitative modeling. There are tremendous opportunities for the effective application of these tools, techniques, and methods in a wide range of business operations including service operations, manufacturing, distribution, transportation, logistics, supply chain management, revenue management, quality management, finance, human resources, information systems, marketing, and strategic planning. Operations management can be effectively applied to virtually every component of an organization. The OM master's degree program features two curriculum options, operations management and operations management with the decision analytics concentration.

## Admissions

**In addition to the minimum Graduate School admission requirements, to be considered for regular admission an application must include:**

- A resume
- 3 letters of recommendation. One letter must be written by an individual holding a graduate degree.
- A GRE score of at least 307, a GMAT (old version) score of at least 580, or a GMAT Focus Edition score of 545.
  - GRE/GMAT Score Waiver: Any student who previously graduated with a BS in OM from The University of Alabama and has a graduation date within five calendar years of the date application is submitted can be considered for a GRE/GMAT waiver. *Contact OM program coordinator for additional information.*
- A grade of B- or higher in Calculus I (The University of Alabama equivalent is MATH 121)
- A TOEFL score of at least 90 or an IELTS score of at least 7.0 for non-native English speakers who are required to submit an English Language test score (see admissions criteria link below).
  - Please note that this program does not accept Duolingo or PTE test scores.

Students who do not meet these requirements, but who excel in other areas, may be considered for "Admission with Permission to Continue."

Accelerated Master's Program (AMP) students must meet the minimum admission requirements as listed in the AMP section of this catalog.

See the Admission Criteria section of this catalog for more information.

## Curricular Requirements

### Operations Management

The program consists of 30 hours of coursework which students can complete in 12 to 24 months starting in the summer semester. All students are expected to complete the program within 24 months. Students may choose between the OM (Traditional) or the OM (with Decision Analytics concentration) curriculum options. The program has a common 9-credit hour core. Students then fulfill the remaining 21 credit hours according to their chosen curriculum option. Regardless of the chosen curriculum option, elective courses allow students to obtain additional instruction in other subjects such as project management, supply chain strategy, quality management, amongst others.

| Required Core Courses  |                               | Hours |
|--|-------------------------------|-------|
| ST 560   | Statistical Methods           | 3     |
| OM 500   | MGT Science & Spreadsheet Mod | 3     |
| OM 540   | Systems Simulation            | 3     |
| Choose either OM (Traditional) or OM (with Decision Analytics Concentration) |                               | 21    |

### Operations Management (Traditional)

| OM (Traditional) Required Courses |                                 | Hours |
|-----------------------------------|---------------------------------|-------|
| OM 517                            | Supply Chain Modeling & Analyls | 3     |
| OM 522                            | Operations Scheduling Problems  | 3     |
| OM 523                            | Inventory Management            | 3     |
| OM 527                            | Purchasing and Sourcing         | 3     |
| OM 525                            | Effective Quality Management    | 3     |
| Approved Electives, choose two    |                                 | 6     |
| AC 506                            | Concepts Financial Managrl Acc  |       |
| EC 500                            | Managerial Economics            |       |
| FI 504                            | Financial Management for MBA    |       |
| IBA 550                           | Global Business                 |       |
| IBA 555                           | Global Market Management        |       |
| MGT 517                           | Leadership & Ethics             |       |
| GBA 525                           | Business Policy                 |       |
| IBA 560                           | Adv. Import/Export Strategy     |       |
| OM 596                            | Capstone Project                |       |
| OM 524                            | Mfg Sched & Control Systems     |       |

Or other electives with program coordinator approval.

|                              |           |
|------------------------------|-----------|
| <b>Required Core Classes</b> | <b>9</b>  |
| <b>Total Hours</b>           | <b>30</b> |

## Operations Management (with Decision Analytics Concentration)

The Operations Management (with Decision Analytics Concentration) master's degree combines the prescriptive modeling and analytical skills obtained from the Operations Management program with the data management and data mining skills offered in the Applied Statistics program.

This option consists of 10 courses overall: five from Operations Management and five from Applied Statistics. These 10 courses are organized as follows:

| Decision Analytics Concentration Required Courses        |                                | Hours     |
|--|--------------------------------|-----------|
| ST 521   | Statistical Data Management    | 3         |
| ST 522   | Adv Statistical Data Mgt       | 3         |
| ST 531   | Data Mining I                  | 3         |
| ST 532   | Advanced Data Mining           | 3         |
| <b>Approved Electives (choose 3 from the list below)</b> |                                | <b>9</b>  |
| OM 517   | Supply Chain Modeling & Analys |           |
| OM 522   | Operations Scheduling Problems |           |
| OM 523   | Inventory Management           |           |
| OM 524   | Mfg Sched & Control Systems    |           |
| OM 525   | Effective Quality Management   |           |
| OM 527   | Purchasing and Sourcing        |           |
| <b>Required Core Classes</b>                             |                                | <b>9</b>  |
| <b>Total Hours</b>                                       |                                | <b>30</b> |

## Transfer Credit

Graduate School information on Transfer Credit.

## Accelerated Master's Program

Information on the Accelerated Master's Program.

## Comprehensive Exam/Capstone

- The MSOM Written Comprehensive Exam (WCE) consists of two parts: Course exams and case studies, and is administered through Blackboard Learn during a 7-day period approximately 5-6 weeks prior to Commencement:

(1) For course exams, each student must choose three courses among OM 517, OM 522, OM 523, OM 524, OM 527, and OM 540, and must take those three course exams. The WCE course exams will only include topics that have been covered during the first 10 weeks of these courses, so courses in which students are currently enrolled are eligible choices. Each course exam must be completed within a 1-hour period (of the student's choice) during this 7-day period. All exams are open-book, open-note exams.

(2) The case study part of the exam is not timed, and the students can work on it at any time during this 7-day period.

The MSOM program has four Student Learning Outcomes (SLOs):

- Recognition, identification, and definition of an operational problem or process improvement.
- Selection of appropriate tools and techniques to achieve desired improvement.

(3) Correct and complete application of tools and techniques to achieve desired improvement.

(4) Satisfactory communication of technical subject matter.

The course exams assess SLOs 2 and 3; the case studies assess SLOs 1 and 4.

An overall score of 70% or higher (averaged over the three course exams and the case study exam) is considered passing. Any other score is considered failing. Note that per the University of Alabama policy, "Failing the exam twice will result in dismissal from the degree program and the Graduate School." If you fail your first attempt, you have the option of taking the WCE for a second (and last) time during the same semester. The second WCE will be given only for those courses for which your original score was below 70%. An overall score of 70% or higher (averaged over the three course exams and the case study exam, with the revised score(s) used if the exam is retaken) is still needed for passing.

Once the student applies for graduation (typically during the first two weeks of the academic semester they are expected to graduate), WCE dates and detailed course-specific information will be provided.

## Time Limits for Degree Completion Requirements

Graduate School information on Time Limits.

## Academic Misconduct Information

Graduate School information on Academic Misconduct.

## Withdrawals and Leave of Absence Information

Graduate School information on Withdrawals and Leave of Absence.

## Academic Grievances Information

Graduate School information on Academic Grievances.

## Grades and Academic Standing

Graduate School information on Grades and Academic Standing.

## Graduate School Deadlines Information

Information on Graduate School Deadlines.

## Application for Graduation Information

Information on the Application for Graduation.