

Management Science (STEM) MBA Program

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The value of a business education focusing on quantitative and scientific methods has long been recognized. The Management Science specialization of the Master of Business Administration recognizes the efforts of individuals who choose to focus their MBA studies on quantitative business-related fields such as statistics, mathematical techniques, analytics, data warehousing, data mining, operations and supply chain optimization, finance, forecasting, digital marketing and modeling.

A core of essential courses is designed to build the foundation of skills required of all leading executives, develop collaborative talent, cultivate innovation, build analytical skills, and expand the student's vision and ethical framework with a global perspective. An individualized program of study allows students to acquire knowledge and skills in their preferred STEM-related disciplines.

Application

The Management Science specialization of the MBA is open only to individuals who have been admitted to the Marshall Full-Time MBA program and have successfully completed the majority of the "core" required courses in the MBA program - after completion of their first semester.

MBA students who wish to transition to the STEM MBA submit a petition to the academic director of their MBA program. The petition must include a brief essay explaining why the student would benefit academically and succeed in the STEM MBA program.

To qualify for admission to the Management Science MBA the student must have earned a Marshall MBA degree GPA of at least 3.0 and a cumulative graduate GPA at USC of at least 3.0.

Program Requirements

The Management Science specialization of the MBA requires 63 units including MBA core, management science electives, and general business electives.

"Core" Required Courses

Successfully complete all of the required (core) courses in the USC Marshall Full-Time MBA program.

Management Science Electives

Successfully complete at least 18 units selected from the list below.

- ACCT 581 Financial Statement Analysis Units: 3
- DSO 506 Sourcing and Supplier Management Units: 1.5
- DSO 510 Business Analytics Units: 1.5, 3
- DSO 516 Probability and Data Modeling Units: 1.5
- DSO 520 Logistics Management Units: 3
- DSO 522 Applied Time Series Analysis for Forecasting Units: 1.5, 3
- DSO 528 Data Warehousing, Business Intelligence, and Data Mining Units: 1.5, 3
- DSO 529 Advanced Regression Analysis Units: 3
- DSO 530 Applied Modern Statistical Learning Methods Units: 3
- DSO 536 Monte Carlo Simulation and Decision Models Units: 1.5

- DSO 545 Statistical Computing and Data Visualization Units: 3
- DSO 547 Designing Spreadsheet-Based Business Models Units: 3
- DSO 549 Application of Lean Six Sigma Units: 3
- DSO 552 SQL Databases for Business Analysts Units: 1.5
- DSO 562 Fraud Analytics Units: 3
- DSO 570 The Analytics Edge: Data, Models, and Effective Decisions Units: 3
- DSO 574 Getting Ready for Big Data Units: 3
- DSO 580 Project Management Units: 3
- DSO 581 Supply Chain Management Units: 3
- DSO 582 Service Management: Economics and Operations Units: 3
- DSO 583 Operations Consulting Units: 3
- DSO 586 Global Healthcare Operations Management Units: 3
- DSO 599 Special Topics Units: 1, 1.5, 2, 3 *
- FBE 535 Applied Finance in Fixed Income Securities Units: 1.5, 3
- FBE 543 Forecasting and Risk Analysis Units: 3
- FBE 550 High Yield Bond Investing - Managing Credit Risk Units: 1.5
- FBE 553a Applied Portfolio Management Units: 3
- FBE 553b Applied Portfolio Management Units: 3
- FBE 555 Investment Analysis and Portfolio Management Units: 3
- FBE 559 Management of Financial Risk Units: 3
- GSBA 504b - Operations Management Units: 1.5
- MKT 512 Customer Insights and Analysis Units: 3
- MKT 536 Pricing Strategies Units: 3
- MKT 543 Market Demand and Sales Forecasting Units: 3
- MKT 566 Marketing Analytics Units: 3

* Selected offerings of DSO 599 may be applicable to this program, subject to approval by the academic director. Students must petition prior to registration.

General Business Electives

Complete a selection of graduate business electives (500-level ACCT, BAEP, BUCO, DSO, FBE, GSBA, MKT or MOR) sufficient to bring the total units completed to at least 63.

Total units required for degree: 63

Note: USC reserves the right to change, add or delete its course offerings and programs without notice.

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