Naveen Jindal School of Management

Executive Education Programs

The Naveen Jindal School of Management, Executive Education Area combines the best of the school's nationally recognized faculty with a select group of executives to provide an innovative, relevant portfolio of programs. Designed to advance knowledge and skills that improve organizational performance, these programs include both MBA and Master of Science degree programs, as well as certificate programs. Courses are taught on campus, on site or online.

Executive MBA and Master's Degree Programs

- Executive MBA (EMBA) Degree Program
- Global Leadership Executive MBA (GLEMBA) Degree Program
- Graduate Certificate, Executive MS and MBA Degree Programs with an Emphasis in Project Management
- Graduate Certificate, Executive MS and MBA Degree Programs with an Emphasis in Product Lifecycle and Supply Chain Management
- Master of Science in Healthcare Leadership and Management
- Healthcare Leadership and Management Executive MBA
- Master of Science in Healthcare Leadership and Management for Healthcare Professons
- Master of Science in Healthcare Leadership and Management Executive MBA for Healthcare Professionals
- MS Degree in Leadership and Organizational Development with a Concentration in Coaching
- Graduate Certificate in Executive and Professional Coaching
- Graduate Certificate and Executive MS Degree in Systems Engineering and Management (MS-SEM)

Special admission and fee requirements apply to the following programs and courses.

Executive MBA (EMBA) Program

53 semester credit hours minimum

Faculty

- **Professors**: Ashiq Ali, Gary Bolton, Seung-Hyun Lee, Vikram Nanda, Mike W. Peng
- **Clinical Professors**: Pamela Foster Brady, Robert Hicks, Diane S. McNulty, Rajiv Shah
- **Associate Professor**: Gil Sadka
- **Clinical Associate Professors**: Carolyn Reichert
- **Assistant Professor**: Shouqiang Wang
- **Clinical Assistant Professors**: Jeffery (Jeff) Hicks, Ravi Narayan
- **Senior Lecturer**: Jackie Kimzey
Degree Requirements

The Executive MBA (EMBA) program at the Naveen Jindal School of Management is a minimum 53 semester credit hours that prepares experienced professionals for upper management, executive levels and the C-suite. Based in part on personal executive coaching, the program provides a transformative educational experience that enhances student success and takes student careers to a higher level. The 21-month program meets 2-3 Saturdays per month, minimizing disruptions for those with busy schedules. The Executive MBA curriculum enhances individuals' basic business fundamentals and sharpens their decision-making skills through strategic frameworks for performance transformation. The program includes a ten day international study tour that exposes students to corporate and governmental decision makers. Students explore the countries' economic states and competitive advantages, understand strategic decisions facing business executives, learn about public policy with regards to immigration, labor, culture and management practices and understand opportunities for foreign investment. Special tuition, fees and admissions requirements apply and the program is supported entirely by participant tuition/fees.

Core Courses: 30 semester credit hours

- **ACCT 6301** Financial Accounting
- **ACCT 6202** Managerial Accounting
- **BPS 6310** Strategic Management
- **FIN 6301** Financial Management
- **IMS 6204** Global Business
- **MIS 6204** Information Technology for Management
- **MECO 6303** Business Economics
- **MKT 6301** Marketing Management
- **OPRE 6301** Statistics and Data Analysis
- **OPRE 6302** Operations Management
- **OB 6301** Organizational Behavior

Elective Courses: 23 semester credit hours

All EMBA students are required to take the following elective courses.

- **ACCT 6287** Board Membership, Risk Management and Compliance
- **BPS 6254** Performance Transformation
- **BPS 6255** Field Project
- **BPS 6256** C-Suite Leadership
- **ENTP 6394** Innovation, Entrepreneurship and Intrapreneurship
- **FIN 6253** Valuation, Investment and Financing
Global Leadership Executive MBA (GLEMBA) Program

53 semester credit hours minimum

Faculty

Professor: Seung-Hyun Lee
Clinical Professors: John Barden, Pamela Foster Brady, Daniel Rajaratnam
Associate Professor: Gil Sadka
Clinical Associate Professor: Carolyn Reichert
Assistant Professor: Shouqiang Wang
Clinical Assistant Professor: Jeffery (Jeff) Hicks
Senior Lecturer: Jackie Kimzey

Degree Requirements

The Global Leadership Executive MBA (GLEMBA) at the Naveen Jindal School of Management is a minimum 53 semester credit hours program that is designed for managers who want to expand their international business acumen. The first two semesters develops core U.S. business fundamentals. The third semester begins with an international retreat as students take a deep dive into diverse markets. The fourth semester is about entering and operating in new geographic markets, and the fifth semester is about leading and executing in a globalized enterprise. This 21-month program includes: online learning, three campus retreats, one international retreat and a ten-day international study tour. A set degree plan expands the MBA core curriculum with an international curriculum. Special tuition, fees and admissions requirements apply and the program is supported entirely by participant tuition/fees.

Core Courses: 30 semester credit hours

ACCT 6301 Financial Accounting
ACCT 6202 Managerial Accounting
BPS 6310 Strategic Management
FIN 6301 Financial Management
IMS 6204 Global Business
MIS 6204 Information Technology for Management
MECO 6303 Business Economics
MKT 6301 Marketing Management
OB 6301 Organizational Behavior
Required Courses: 23 semester credit hours
All GLEMB students are required to take the following elective courses.

- **ENTP 6352** International Business Plan
- **FIN 6252** Creating Value Through Mergers, Acquisitions and Private Equity
- **FIN 6366** International Financial Management
- **IMS 6213** Global Politics in Business
- **IMS 6253** Cross-Cultural Management
- **IMS 6351** Executive International Study Trip
- **IMS 6354** Global Marketing
- **OB 6340** Leading Strategic Change Processes in an International Environment
- **OPRE 6250** Global Supply Chain Management

Graduate Certificates and Degree Programs with an Emphasis in Project Management

The Executive Education Project Management Program is one of the emphasis areas designed to begin with a set of specialization area courses followed by additional business management core courses. It leads to either a Master of Science or a Master of Business Administration degree with the chosen emphasis. Upon completion of the project management core courses, students earn a Graduate Certificate in Project Management and are prepared to take the Project Management Institute's Project Management Professional (PMP) certification exam. Following completion of the project management core, students may then continue to complete the requirements for the Master of Science or the Master of Business Administration degree.

Project management faculty members have industrial project management, operations management, management consulting and teaching experience. The program curriculum is delivered both on campus and online. The on-campus program accommodates work and travel schedules by meeting eight hours per day on one consecutive Thursday, Friday and Saturday per month. The online program is designed as weekly modules equivalent to one half-day on campus and includes live interaction.

The project management emphasis certificate and degree programs are supported entirely by participant fees, and special admission requirements apply. Both degree- and non-degree-seeking students with undergraduate degrees can study toward the Graduate Certificate in Project Management. Potential students are required to complete an application, provide written professional references from three people, attend an interview with the program director and request all universities attended send an official transcript.

**Graduate Certificate in Project Management**

*20 semester credit hours minimum*
Overview

The Graduate Certificate in Project Management is awarded after completion of the project management core courses described below totaling 20 semester credit hours. These courses emphasize a systems approach to project management and follow the lifecycle of a project, integrating relevant topics from multiple knowledge areas rather than presenting topical courses in isolation. This type of learning environment more closely tracks an actual work experience and facilitates learning and application.

Courses Required for Graduate Certificate in Project Management

- **MAS 6V01** Special Topics in Management (two one-credit hour courses in succeeding semesters)
- **OB 6301** Organizational Behavior
- **OPRE 6271** Project Overview, Strategic and Process Management
- **OPRE 6274** Project Execution Planning
- **OPRE 6275** Project Execution, Control and Closeout
- **OPRE 6372** Project Initiation
- **OPRE 6373** Project Planning
- **OPRE 6376** Advanced Project Management and Simulation

Master of Science in Management Science with an Emphasis in Project Management

*39 semester credit hours minimum*

Faculty

- **Professor Emeritus:** Dale Osborne
- **Clinical Professors:** John Barden, David Cordell, John Gamino, Randall S. Guttery, Peter Lewin, Jeffrey Manzi
- **Associate Professors:** Nina Baranchuk, Zhonglan Dai, Rebecca Files, Kyle Hyndman, Surya N. Janakiraman, Robert L. Kieschnick Jr., Jun Li, Ningzhong Li, Ramachandran (Ram) Natarajan, Naim Bugra Ozel, Gil Sadka, David J. Springate, Kelsey D. Wei, Han (Victor) Xia, Yexiao Xu, Alejandro Zentner, Jieying Zhang, Yuan Zhang, Feng Zhao, Yibin Zhou
- **Clinical Associate Professors:** Lale Guler, Carolyn Reichert
Overview

A Master of Science in Management Science (MS MSc) degree is awarded after the completion of an additional 19 semester credit hours beyond the project management core requirements.

MS MSc in Project Management Supplemental Curriculum:

- **ACCT 6301** Financial Accounting
- **ACCT 6202** Managerial Accounting
- **IMS 6370** Seminar in International Operations Management
- **IMS 6371** Seminar in International Strategic Management
- **MECO 6303** Business Economics
- **MIS 6204** Information Technology for Management
- **OPRE 6301** Statistics and Data Analysis

Executive MBA with an Emphasis in Project Management

53 semester credit hours minimum

Faculty

- **Professor Emeritus**: Dale Osborne
- **Clinical Professors**: John Barden, David Cordell, John Gamino, Randall S. Guttery, Peter Lewin, Jeffrey Manzi
- **Associate Professors**: Nina Baranchuk, Zhonglan Dai, Rebecca Files, Kyle Hyndman, Surya N. Janakiraman, Robert L. Kieschnick Jr., Jun Li, Ningzhong Li, Ramachandran (Ram) Natarajan, Naim Bugra Ozel, Gil Sadka, David J. Springate, Kelsey D. Wei, Han (Victor) Xia, Yexiao Xu, Alejandro Zentner, Jieying Zhang, Yuan Zhang, Feng Zhao, Yibin Zhou
- **Clinical Associate Professors**: Lale Guler, Carolyn Reichert
- **Assistant Professors**: Bernhard Ganglmair, Meng Li, Jean-Marie Meier, Alejandro Rivera Mesias, Alessio Saretto, Simon Siegenthaler, Christian Von-Drathen, Malcolm Wardlaw, Steven Xiao, Nir Yehuda
- **Clinical Assistant Professors**: Moran Blueshtein, Ayfer Gurun, Revansiddha Khanapure, Liping Ma, Drew Peabody
- **Senior Lecturers**: Frank Anderson, Tiffany A. Bortz, Richard Bowen, George DeCourcy,
Overview

The Executive MBA degree is earned by waiving the Master of Science degree and completing an additional 14 semester credit hours, for a total of 53 semester credit hours. Students must complete the Executive MBA core courses listed below to earn the degree.

Additional Courses Required for the Executive MBA

- **BPS 6310** Strategic Management
- **FIN 6301** Financial Management
- **IMS 6204** Global Business
- **MKT 6301** Marketing Management
- **OPRE 6302** Operations Management

Graduate Certificates and Degree Programs with an Emphasis in Product Lifecycle and Supply Chain Management

The graduate certificate and degree programs in Product Lifecycle and Supply Chain Management focus on educating executives and industry sponsored employees by combining theory and practice. It emphasizes the need to understand "the big picture," the importance of renewed focus on product lifecycle from design to disposal, and supply chain from end to end. Students are trained to be effective problem solvers, and to continuously improve product performance and supply chain efficiency.

The program employs lectures, case studies, site visits and the use of quantitative and qualitative methods to meet learning objectives. Students are required to integrate classroom learning with work projects. The program leverages JSOMs world-class faculty in operations management and industry leaders/practitioners to deliver the program. Following completion of the product lifecycle and supply chain management core, students may then continue to complete the requirements for the Master of Science in Supply Chain Management or the Master of Business Administration degree.

The product lifecycle and supply chain emphasis certificate and degree programs are supported entirely by participant fees, and special admissions requirements apply. Both degree- and non-degree seeking students with undergraduate degrees can study toward the Graduate Certificate in Project Management. Potential students are required to complete an application, provide written professional references from three people, attend an interview with the program director and request all universities attended send an official transcript.

Graduate Certificate in Product Lifecycle and Supply Chain Management

15 semester credit hours minimum

Faculty

**Clinical Professor**: Divakar Rajamani
Overview

The Graduate Certificate in Product Lifecycle and Supply Chain Management is awarded after completion of the product lifecycle and supply chain management core courses described below, totaling 15 semester credit hours.

Courses Required for Graduate Certificate in Product Lifecycle and Supply Chain Management: 15 semester credit hours

OPRE 6364  Lean Six Sigma
OPRE 6366  Global Supply Chain Management
OPRE 6370  Global Logistics and Transportation
OPRE 6371  Purchasing, Sourcing and Contract Management
OPRE 6379  Product Lifecycle Management

Master of Science in Supply Chain Management

36 semester credit hours minimum

Faculty

Professor: John J. Wiorkowski
Clinical Professor: Larry Chasteen, William Hefley, Peter Lewin, Divakar Rajamani
Clinical Associate Professor: Carolyn Reichert
Clinical Assistant Professor: Jeffery (Jeff) Hicks
Senior Lecturers: Steven Solcher, Kathy Zolton

Overview

A Master of Science in Supply Chain Management degree is awarded after the completion of an additional 23 semester credit hours beyond the product lifecycle and supply chain management core requirements. The MS in Supply Chain Management requires the following coursework:

MS in Supply Chain Management Supplemental Curriculum: 23 semester credit hours

ACCT 6301  Financial Accounting
ACCT 6202  Managerial Accounting
FIN 6301  Financial Management
OB 6301  Organizational Behavior
OPRE 6301  Statistics and Data Analysis
OPRE 6302  Operations Management
OPRE 6367  Capstone Projects in Supply Chain Management (International Study)
OPRE 6368 Industrial Applications in Supply Chains (International Study)

Executive MBA with an Emphasis in Product Lifecycle and Supply Chain Management

53 semester credit hours minimum

Faculty

Clinical Professors: Larry Chasteen, William Hefley, Peter Lewin, Divakar Rajamani
Clinical Assistant Professor: Jeffery (Jeff) Hicks
Senior Lecturer: Steven Solcher

Overview

The Executive MBA degree is earned by waiving the Master of Science degree and completing an additional 16 semester credit hours, for a total of 53 semester credit hours. Students must include the Executive MBA core courses listed below to earn the degree.

Additional Courses Required for the Executive MBA: 16 semester credit hours

BPS 6310 Strategic Management
IMS 6204 Global Business
MECO 6303 Business Economics
MIS 6204 Information Technology for Management
MKT 6301 Marketing Management
OPRE 6342 Special Topics in Product Lifecycle and Supply Chain Management

Master of Science in Healthcare Leadership and Management

36 semester credit hours minimum

Faculty

Professor Emeritus: Dale Osborne

Overview

The Master of Science in Healthcare Leadership and Management is a specialized business degree available to U.S. licensed MDs, DOs and DPMs. The 36 semester credit hour curriculum consists of nine four-day residential classes or any eight classes plus a self-directed field study. A different class is offered every two months and classes may be started at any time and taken in any order. Each class is eligible for up to 36 credit hours of Category 1 CME credit toward the AMA Physician's Recognition Award. Successful completion of any five classes is recognized by the award of a Graduate Certificate in Healthcare Leadership and Management.

The curriculum is centered on real-life healthcare problems and cases. Classes are jointly taught by senior business and medical school faculty with outstanding academic credentials and real-world healthcare experience. Physicians and faculty work collaboratively in small teams to examine facts, evaluate alternatives, and develop workable solutions.

The Healthcare Leadership and Management Curriculum

- **HMGT 6401** Negotiation and Conflict Management in Healthcare
- **HMGT 6402** Financial Management of Healthcare Organizations
- **HMGT 6403** Medical Cost and Performance Management
- **HMGT 6404** Quality and Performance Improvement in Healthcare
- **HMGT 6405** Healthcare Information Management and Technology

Faculty

Overview
The Healthcare Leadership and Management Executive MBA is a general business degree preferred by physicians who wish to transition into an executive management role. It requires the completion of the Master of Science in Healthcare Leadership and Management curriculum plus an additional 17 semester credit hours consisting of six non-healthcare related general business classes. These classes provide an integrated overview of functional areas of management as well as analytical tools for effective decision making. The general business classes may be taken online for maximum flexibility and convenience. The online classes require no on-campus visits.

Required Courses: 17 semester credit hours

- FIN 6301 Financial Management
- IMS 6204 Global Business
- MECO 6303 Business Economics
- MKT 6301 Marketing Management
- OPRE 6301 Statistics and Data Analysis
- OPRE 6302 Operations Management

The Healthcare Leadership and Management Executive MS and MBA degrees are supported entirely by participant fees, and special admissions requirements apply. Further information may be obtained from the program website: amme.utdallas.edu.

Master of Science in Healthcare Leadership and Management for Healthcare Professionals
36 semester credit hours minimum

Faculty

Overview
The Master of Science in Healthcare Leadership and Management for Healthcare Professionals
Professionals is a specialized business degree program targeted to professionals with five or more years of experience seeking to develop the knowledge and skills necessary to assume executive leadership roles in healthcare. The 36 semester credit hours curriculum consists of nine classes which are taught on a Friday and Saturday once a month over a period of eighteen months. There is also a two-day non-credit introductory seminar that is required prior to the start of the program. The curriculum is centered on real-life healthcare problems and cases. Classes are jointly taught by senior business and medical school faculty with outstanding academic credentials and real-world healthcare experience. Physicians and faculty work collaboratively in small teams to examine facts, evaluate alternatives, and develop workable solutions.

The Healthcare Leadership and Management for Healthcare Professionals Curriculum

- **HMGT 6401** Negotiation and Conflict Management in Healthcare
- **HMGT 6402** Financial Management of Healthcare Organizations
- **HMGT 6403** Healthcare Cost and Performance Management
- **HMGT 6404** Quality and Performance Improvement in Healthcare
- **HMGT 6405** Healthcare Information Management and Technology
- **HMGT 6406** Strategic Management of Healthcare Organizations
- **HMGT 6408** Competencies of Effective Leaders
- **HMGT 6410** Leading in Complex Organizations
- **HMGT 6V99** Special Topics in Healthcare Management

Healthcare Leadership and Management Executive MBA for Healthcare Professionals

53 semester credit hours minimum

Faculty

Overview

The Executive MBA in Healthcare Leadership and Management for Healthcare Professionals is an advanced business degree recommended for those who wish to transition into an executive leadership role. It requires completion of the nine classes of the healthcare management curriculum plus an additional six online general business classes. The business classes provide an integrated overview of functional areas of management as well as analytical tools for effective executive decision making. The online classes include.

Required Courses: 17 semester credit hours

- **FIN 6301** Financial Management
The Healthcare Leadership and Management Executive MS and MBA for Healthcare Professionals degrees are supported entirely by participant fees, and special admissions requirements apply. Further information may be obtained from the program website: http://jindal.utdallas.edu/executive-education/executive-ms-healthcare-management/.

Executive Education Program in Organizational Behavior and Coaching

As is the case with both the Project Management and Healthcare Leadership and Management programs, students in the Executive Education Program in Organizational Behavior and Coaching can complete multiple levels of recognition, including:

1. A Graduate Certificate in Executive and Professional Coaching after 15 semester credit hours and
2. A Master of Science degree in Leadership and Organizational Development (MS LOD) after the completion of an additional 21 semester credit hours beyond certificate requirements.

This program focuses on organizational behavior and coaching theory, methodology, and techniques. Students learn how to become instruments of individual and organizational change, lead and manage organizational transitions, work effectively when there is resistance to change, and develop skills as an internal and external practitioner. Students deepen their knowledge of individual and organizational behavior through the integration of theory and practice. They leave the program with a set of tools for personal, group, organization and community transformation, qualified to apply for professional accreditation by the International Coach Federation.

Classes are conducted utilizing the very best in interactive distance learning methodologies, making the program convenient, efficient, and geographically independent for busy professionals. Students are taught by outstanding master coaches with real-world coaching experience within business settings and by Jindal School of Management faculty.

Graduate Certificate in Executive and Professional Coaching

15 semester credit hours minimum

Faculty

Clinical Professor: Robert Hicks

Overview

The Graduate level Certificate requires the successful completion of the following six courses specific to Executive and Professional Coaching, including three coaching practice/practicum courses, OB 6248, OB 6249, and OB 6253.
Executive and Professional Coaching Courses

- **OB 6248** Coaching Practice Lab I
- **OB 6249** Coaching Practice Lab II
- **OB 6253** Coaching Practicum
- **OB 6350** Executive and Professional Coaching
- **OB 6351** Coaching in the Business or Organizational Setting
- **OB 6352** Advanced Coaching Models and Methods

Master of Science in Leadership and Organizational Development with a Concentration in Coaching

**36 semester credit hours minimum**

Faculty

**Clinical Professors:** William Hefley, Robert Hicks, Van Latham
**Senior Lecturers:** Steven Solcher

Overview

After completion of the certificate requirements, students can go on to complete a Master of Science in Leadership and Organizational Development (MS LOD) degree by completing another 21 semester credit hours of graduate level courses, including the courses in the MS LOD core curriculum.

**MS LOD Core Curriculum**

- **OB 6301** Organizational Behavior
- **OB 6348** Leadership Concepts and Practices
- **OB 6340** Leading Organizational Change
- **OB 6334** Foundations of Organizational Development

Organizational Behavior and Coaching students take the Executive MS LOD core set, and draw the remainder of their courses from the following list.

**Organizational Behavior Elective Courses**

- **OB 6331** Power and Politics in Organizations
- **OB 6342** Organizational Diagnosis
- **OB 6344** Organizational Development: Bridging Theory and Practice

Executive Master of Science Degree and Certificate Programs in Systems Engineering and Management (MS-SEM)

**36 semester credit hours**
The Systems Engineering and Management Executive Education MS-SEM is a joint program offered by the Naveen Jindal School of Management and the Erik Jonsson School of Engineering and Computer Science. It is a unique program that offers a flexible choice of core courses in both engineering and management disciplines, with elective courses for concentrations in various industry sectors.

JSOM Faculty

**Professors:** Alain Bensoussan, Gregory G. Dess, Mike W. Peng  
**Clinical Professors:** Abhijit Biswas, Peter Lewin, Rajiv Shah  
**Associate Professors:** Surya N. Janakiraman, Robert L. Kieschnick Jr., David J. Springate  
**Clinical Associate Professor:** Carolyn Reichert, Avanti P. Sethi, James Szot  
**Clinical Assistant Professors:** Shawn Alborz, Jeffery (Jeff) Hicks, Ravi Narayan

ECS Faculty

**Professors:** Mark W. Spong, Lakshman Tamil, Mathukumalli Vidyasagar, W. Eric Wong, Steve Yurkovich  
**Associate Professor:** Lawrence Chung  
**Assistant Professor:** Robert D. Gregg, Justin Ruths  
**Senior Lecturers:** Nhut Nguyen, Janell Straach

Admission Requirements

A student lacking undergraduate prerequisites for graduate courses must complete prerequisites or receive approval from the graduate advisor and the course instructor. Specific admission requirements for the Executive MS-SEM follow.

A student entering the MS-SEM program (Executive Education Master's) should meet the following guidelines:

- A minimum of a BS in engineering, mathematics, physics, chemistry, economics or finance (specifically, programs that provide adequate fundamental skills in mathematics).
- A minimum of three years of work experience.
- Submission of three letters of recommendation from individuals who are able to judge the candidate's probability of success in pursuing a program of study leading to the MS-SEM degree.
- Submission of an essay outlining the candidate's background, education, and professional goals.

Degree Requirements

The MS-SEM program is designed to be flexible to accommodate different student backgrounds, allowing students to pick up areas in which they are deficient, while still guaranteeing core competency in systems engineering and systems management. This program has both a thesis and a non-thesis option. All part-time MS-SEM students will be assigned initially to the non-thesis option. Those wishing to elect the thesis option may do so by obtaining the approval of a faculty thesis supervisor. Part-time students are encouraged to enroll in only one course during their first semester and in no more than two courses during any semester that they are also working full-time.

The MS-SEM degree requires a total of 36 semester credit hours consisting of 12 courses in the non-thesis option or 10 courses plus six semester credit hours of thesis.
credit for the thesis option. All students must have an academic advisor and an approved degree plan. Courses taken without advisor approval will not count toward the 36 semester credit hour requirement. Successful completion of the approved course of studies leads to the MS-SEM degree. Please note that the University's general degree requirements are discussed elsewhere in the graduate catalog.

This degree requires the completion of a minimum of 36 semester credit hours of graduate level lecture courses. For the four core courses, students must have a GPA of at least 3.0 and receive a grade of B- or better in each. Students must maintain a 3.0 GPA overall to graduate with the MS-SEM degree. With advisor approval, one 5000 level course may be used in the concentration (See Course Requirements).

An alternative to 36 semester credit hours required for the MS-SEM degree, would be the completion of a minimum of 30 semester credit hours of graduate level lecture courses, with a grade of B- or better in each of the required core courses (see Course Requirements), six semester credit hours of a combination of master's research (SYSM 6V70) and thesis (SYSM 6V90), submitted to the graduate school, and a formal public defense of the thesis.

Students enrolled in the thesis option should meet with individual faculty members to discuss research opportunities and to choose a research advisor during the first or second semester that the student is enrolled. After the second semester of study, course selection should be made in consultation with the research advisor.

Research and thesis semester credit hours cannot be counted in an MS-SEM degree plan unless a thesis is written and successfully defended. A supervising committee, which must be chosen in consultation with the student's thesis advisor prior to enrolling for thesis credit, administers the defense. With advisor approval, the lecture courses may include some 5000 level courses. Full-time students at UT Dallas who receive financial assistance are required to enroll in nine semester credit hours each semester.

Course Requirements

Core Courses: 12 semester credit hours

Students are required to take four courses (a total of 12 semester credit hours) from the eight courses listed below. Two of the courses must be from the Engineering Core section and two from the Management Core section. The four required courses contribute a total of 12 semester credit hours toward the MS degree.

Engineering Core Courses

Choose two courses from the following:

- **SYSM 6301** Systems Engineering, Architecture and Design
- **SYSM 6302** Dynamics of Complex Networks and Systems
- **SYSM 6303** Statistics and Data Analysis
- **SYSM 6305** Optimization Theory and Practice

Management Core Courses

Choose two courses from the following:
Prescribed Electives: 12 semester credit hours

Students are required to take an additional four courses (a total of 12 semester credit hours) from the set of eight core courses listed above and/or the set of courses listed below. Two of these courses must be chosen from the two Engineering sections (core and elective), and two from the two Management sections (core and elective). Because a program objective is to maintain a high degree of flexibility, students are encouraged to work with an MS-SEM program advisor to discuss possible (limited) exceptions and substitutions for the prescribed elective courses.

**Engineering Elective Courses**

- [SYSM 6304](#) Risk and Decision Analysis
- [SYSM 6306](#) Engineering Systems: Modeling and Simulation
- [SYSM 6307](#) Linear Systems
- [SYSM 6308](#) Software Maintenance, Evolution, and Re-Engineering
- [SYSM 6309](#) Advanced Requirements Engineering
- [SYSM 6310](#) Software Testing, Validation and Verification
- [SYSM 6325](#) Requirements Design, Development and Integration for Complex Systems
- [SYSM 6326](#) Systems Life Cycle Cost Analysis
- [SYSM 6327](#) Systems Reliability
- [SYSM 6328](#) Computer and Network Systems Security

**Management Elective Courses**

- [SYSM 6312](#) Systems Financial Management
- [SYSM 6313](#) Systems Negotiation Deals and Dispute Resolution
- [SYSM 6315](#) The Entrepreneurial Experience
- [SYSM 6316](#) Managing Innovation within the Corporation
- [SYSM 6319](#) Business Economics
- [SYSM 6320](#) Strategic Leadership
- [SYSM 6332](#) Technology and New Product Development
- [SYSM 6334](#) Systems Operations Management
- [SYSM 6335](#) Organizing for Business Analytics: A Systems Approach
Free Electives: 12 semester credit hours

Working with an MS-SEM program advisor, students are required to take four additional and distinct courses either from the remaining SYSM courses listed above or from other courses offered in management or engineering that form a "concentration" or "specialization" in systems-related, possibly industry-specific sectors. The concentration area consists of four courses (12 semester credit hours) in the degree program; examples include: Aerospace and Defense Systems; Business and Data Analytics; Control and Mechatronic Systems, Cybersecurity and Information Assurance, Energy and Infrastructure Systems, Enterprise and Data Management Systems; Entrepreneurship and Innovation Management; Global Supply Chain Management; Healthcare Systems; Optimization and Operations Research; Telecom, IT and Multimedia Networks, and Transportation Systems.

Finally, because of the flexible nature of the MS-SEM degree program, students may submit for approval a "personalized" concentration area that focuses on aspects of systems engineering, and may combine elements of other concentration areas on a focused theme.

Certificate Programs

The MS-SEM program offers two certificates: a Certificate in Systems Engineering and a Certificate in Systems Management, primarily intended for students who do not wish to pursue the complete MS degree. Each certificate requires 12 semester credit hours. See Course Descriptions for information on course content. These certificates allow students to fit their education into their busy schedules and pursue the track that best fits their career path. These flexible education programs provide students with outstanding opportunities to access UT Dallas' world-class faculty and hands-on learning experiences.

Faculty

Please see the MS-SEM listing for faculty and lecturers in this program.

Certificate in Systems Engineering

12 semester credit hours

Students are required to complete SYSM 6301 and SYSM 6311 and any two courses from the set of engineering courses listed below.

SYSM 6301 Systems Engineering, Architecture and Design
SYSM 6311 Systems Project Management in Engineering and Operations

Systems Engineering Courses

SYSM 6302 Dynamics of Complex Networks and Systems
SYSM 6303 Statistics and Data Analysis
SYSM 6304 Risk and Decision Analysis
SYSM 6305 Optimization Theory and Practice
SYSM 6306  Engineering Systems: Modeling and Simulation
SYSM 6307  Linear Systems
SYSM 6308  Software Maintenance, Evolution, and Re-Engineering
SYSM 6309  Advanced Requirements Engineering
SYSM 6310  Software Testing, Validation and Verification
SYSM 6325  Requirements Design, Development and Integration for Complex Systems
SYSM 6326  Systems Life Cycle Cost Analysis
SYSM 6327  Systems Reliability
SYSM 6328  Computer and Network Systems Security

Certificate in Systems Management

12 semester credit hours

Students are required to complete SYSM 6301 and SYSM 6311 and any two courses from the set of management courses listed below.

SYSM 6301  Systems Engineering, Architecture and Design
SYSM 6311  Systems Project Management in Engineering and Operations

Systems Management Courses

SYSM 6312  Systems Financial Management
SYSM 6313  Systems Negotiation and Dispute Resolution
SYSM 6315  The Entrepreneurial Experience
SYSM 6316  Managing Innovation within the Corporation
SYSM 6318  Marketing Management
SYSM 6319  Business Economics
SYSM 6320  Strategic Leadership
SYSM 6332  Technology and New Product Development
SYSM 6333  Systems Organizational Behavior
SYSM 6334  Systems Operations Management
SYSM 6335  Organizing for Business Analytics: A Systems Approach
SYSM 6336  Earned Value Management Systems
SYSM 6337  Accounting for Managers

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