Naveen Jindal School of Management

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 Degrees

- Executive MBA (EMBA) Degree Program
- Global Leadership Executive MBA (GLEMBA) Degree Program
- Graduate Certificates and Degree Programs with an Emphasis in Project Management
- Graduate Certificates and Degree Programs with an Emphasis in Product Lifecycle and Supply Chain Management
- Master of Science in Healthcare Management for Physicians
- Healthcare Management Executive MBA for Physicians
- Executive Education Degree Program in Organizational Behavior and Coaching
- Graduate Certificate in Executive and Professional Coaching
- Executive Master of Science Degree and Certificate Programs in Systems Engineering and Management (MS-SEM)
- Dual MS-SEM/MBA Degree

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

Executive MBA (EMBA) Program

53 semester credit hours minimum

Faculty

Overview

The Executive MBA (EMBA) program 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 your success and takes your career to a
higher level. The 21-month program meets four class days 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 enterprise transformation. The program includes the America's trip and an international study tour. The 10-day international study tour introduces students to corporate and governmental decision makers and provides behind-the-scenes industry information and one-on-one conversations with corporate leaders.

The EMBA program is supported entirely by participant fees and special admissions requirements apply.

Executive MBA degree programs in the Naveen Jindal School of Management require a core of 30 semester credit hours, along with a set of specially designed elective courses equivalent to 23 semester credit hours, for a total of 53 semester credit hours. The MBA core is comprised of the following courses:

Executive MBA Core Curriculum: 30 semester credit hours

- **ACCT 6201** Introduction to Financial Accounting
- **ACCT 6202** Introduction to Managerial Accounting
- **BPS 6310** Strategic Management
- **FIN 6301** Financial Management
- **IMS 6204** Global Business
- **MIS 6302** Information Technology Strategy and Management
- **MECO 6303** Business Economics
- **MKT 6301** Marketing Management
- **OPRE 6301** Quantitative Introduction to Risk and Uncertainty in Business
- **OPRE 6302** Operations Management
- **OB 6301** Organizational Behavior

Required Courses: 23 semester credit hours

The following courses, comprising a total of 23 semester credit hours, are currently required in the Executive MBA Program curriculum.

- **ACCT 6287** Board Membership, Risk Management and Compliance
- **BPS 6151** Executive Study Trip - Americas
- **BPS 6254** Performance Transformation
- **BPS 6255** Field Project
Global Leadership Executive MBA (GLEMBA) Program

*53 semester credit hours minimum*

Faculty

Overview

The Global Leadership Executive MBA (GLEMBA) program is designed for managers who want to expand their international business acumen. The first two semesters focus on U.S. business fundamentals. The third semester begins with an international retreat as students are introduced to a framework for conducting due diligence before entering global markets. The fourth semester is about entering and operating in new geographic markets, and the fifth semester is about leading and executing globally. This 21-month program includes: online learning, three campus retreats, one international retreat and a 10-day international study tour. A set degree plan expands the MBA core curriculum with an international curriculum.

The Global Leadership Executive MBA Program curriculum is detailed below and requires a core of 29 semester credit hours, along with a set of specially designed elective courses equivalent to 24 semester credit hours, for a total of 53 semester credit hours.

GLEMBA program is supported entirely by participant fees and special admissions requirements apply. The MBA core is comprised of the following courses:

**Executive MBA Core Curriculum: 29 semester credit hours**

- **ACCT 6201** Introduction to Financial Accounting
- **ACCT 6202** Introduction to 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
OPRE 6301 Quantitative Introduction to Risk and Uncertainty in Business
OPRE 6302 Operations Management

Required Courses: 24 semester credit hours

The degree plan will be comprised of total 24 semester credit hours from the list below

ENTP 6352 International Business Plan
FIN 6366 International Financial Management
IMS 6151 Global Business Ethics
IMS 6212 Global Communication and Negotiations
IMS 6213 Global Politics in Business
IMS 6214 Global Mergers and Acquisitions
IMS 6253 Cross-Cultural Management
IMS 6345 Global Leadership
IMS 6351 Executive International Study Trip - EMBA
IMS 6354 Global Marketing
OB 6152 Executive Coaching
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 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 Project Management**

*21 semester credit hours minimum*

**Faculty**

**Overview**

The Graduate Certificate in Project Management is awarded after completion of the project management core courses described below totaling 21 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 6301** Studies in Project Management Practice
- **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

Overview

A Master of Science degree is awarded after the completion of an additional 18 semester credit hours beyond the project management core requirements.

MS MAS in Project Management Supplemental Curriculum:

- ACCT 6201 Introduction to Financial Accounting
- ACCT 6202 Introduction to 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 Quantitative Introduction to Risk and Uncertainty in Business

Executive MBA with an Emphasis in Project Management

53 semester credit hours minimum

Faculty

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 to fulfill requirements for the Executive MBA:

- BPS 6310 Strategic Management
- FIN 6301 Financial Management
- IMS 6204 Global Business
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 JSOM's 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

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

Overview

A Master of Science in Supply Chain Management degree is awarded after the completion of an additional 22 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: 22 semester credit hours

ACCT 6201 Introduction to Financial Accounting
ACCT 6202 Introduction to Managerial Accounting
FIN 6301 Financial Management
OB 6301 Organizational Behavior
OPRE 6301 Quantitative Introduction to Risk and Uncertainty in Business
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

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 to fulfill requirements 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 Management for Physicians

36 semester credit hours minimum

Faculty

Overview

The Master of Science in Healthcare Management is a specialized business degree available to licensed U.S. MDs and DOs. The 36 semester credit hour healthcare management 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. Classes are eligible for up to 36 semester credit hours each 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 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 Management curriculum consists of the following courses:

- **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
- **HMGT 6406** Strategic Management of Healthcare Organizations
- **HMGT 6407** Healthcare Policy and Regulation
- **HMGT 6408** Competencies of Effective Physician Leaders
- **HMGT 6410** Leading in Complex Organizations
- **HMGT 6V10** Special Topics in Healthcare Management
- **HMGT 6V15** Self-Directed Field Study

**Healthcare Management Executive MBA for Physicians**

*53 semester credit hours minimum*

**Faculty**

**Overview**

The Healthcare 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 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 Business Courses: 17 semester credit hours

- **FIN 6301** Financial Management
- **IMS 6204** Global Business
- **MECO 6303** Business Economics
- **MKT 6301** Marketing Management
- **OPRE 6301** Quantitative Introduction to Risk and Uncertainty in Business
- **OPRE 6302** Operations Management

The Healthcare 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](http://amme.utdallas.edu).

**Executive Education Program in Organizational Behavior and Coaching**

As is the case with both the Project Management and Healthcare Management for Physicians 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 Management and Administrative Sciences 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

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** Introduction to Executive and Professional Coaching
- **OB 6351** Coaching in the Business or Organizational Setting
- **OB 6352** Advanced Coaching Models and Methods

Master of Science in Management and Administrative Sciences with a Concentration in Organizational Behavior and Coaching

36 semester credit hours minimum

Faculty

Overview

After completion of the certificate requirements, students can go on to complete a Master of Science in Management and Administrative Sciences degree by completing another 21 semester credit hours of graduate level courses, including the courses in the MS MAS core curriculum.

MS MAS Core Curriculum

The MS MAS core is comprised of the following courses:

- **ACCT 6201** Introduction to Financial Accounting
- **Meco 6303** Business Economics
- **MIS 6204** Information Technology for Management
Organizational Behavior and Coaching students take the Executive MS MAS core set, and then draw the remainder of their courses from the following list specific to the Organizational Behavior component of the curriculum.

**Organizational Behavior Electives**

- **OB 6255** Capstone in Organizational Behavior and Coaching
- **OB 6301** Organizational Behavior
- **OB 6331** Power and Politics in Organizations
- **OB 6332** Negotiation and Dispute Resolution

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

*36 semester credit hours minimum*

#### Overview

The Systems Engineering and Management (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.

#### Faculty

**Naveen Jindal School of Management**

jsom-systems-engineering-and-management-ms

**Erick Johnson School of Engineering and Computer Science**

ecs-executive-systems-engineering-ms-and-cert

#### Admissions 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 Masters) 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 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 also note that the University's general degree requirements are discussed elsewhere in the graduate catalog.

Non-Thesis Option

Completion of a minimum of 36 semester credit hours of graduate-level lecture courses including the required core courses. With advisor approval, these may include some 5000 level courses. Students must earn a grade of (B-) or better in each of four core courses (see Course Requirements).

Thesis Option

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 a set of eight courses from the lists 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** (two required)

- **SYSM 6301** Systems Engineering, Architecture and Design
- **SYSM 6302** Dynamics of Complex Networks and Systems
- **SYSM 6303** Quantitative Introduction to Risk and Uncertainty in Business
- **SYSM 6305** Optimization Theory and Practice

**Management Core Courses** (two required)

- **SYSM 6311** Systems Project Management in Engineering and Operations
- **SYSM 6318** Marketing Management
- **SYSM 6333** Systems Organizational Behavior
- **SYSM 6337** Accounting for Manager

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 6321 Financial Engineering
Sysm 6325 Requirements Development and Integration for Complex Systems
Sysm 6326 Systems Life Cycle Cost Analysis
Sysm 6327 Systems Reliability

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 6320 Strategic Leadership
Sysm 6332 Technology and New Product Development
Sysm 6334 Systems Operations Management
Sysm 6335 Organizing for Business Analytics: A Systems Approach
Sysm 6336 Earned Value Management Systems

Free Elective Courses: 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.

Dual MS-SEM/MBA Degree

63 - 65 semester credit hours minimum

Overview

The Naveen Jindal School of Management and the Erik Jonsson School of Engineering and Computer Science offer a joint MS-SEM and MBA degree program. This is a 63-65 semester credit hours degree program (excluding pre-requisites) that provides students with opportunities to learn from excellent faculty and places them at the forefront in the fields of systems engineering management and business leadership. This program allows students to earn a combination of a master's level specialist degree in systems engineering and management and a MBA together. Both degrees separately would require significantly more credit hours, but in the joint program students can earn both degrees with a smaller total of semester credit hours. Pursuing these degrees together offers students a special opportunity to earn a distinctive set of credentials from UT Dallas.

Faculty

Faculty and lecturers for the courses in this program are drawn from the Erik Jonsson School of Engineering and Computer Science, and from the Naveen Jindal School of Management (see individual faculty listings in the MS-SEM program and the MBA programs).

Dual-Degree Admission Requirements

Students pursuing the dual MS-SEM and MBA degree program must meet the admission requirements for both programs and submit all required documents for admission to both programs. Students joining the Traditional Master's MS-SEM degree program must first complete the 36 semester credit hours of the MS-SEM program. Students have up to six years to accumulate remaining required core hours for the MBA degree (details with respect to program-specific requirements can be obtained from the advisors for the two programs).

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 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** Quantitative Introduction to Risk and Uncertainty in Business
- **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 6321** Financial Engineering
- **SYSM 6325** Requirements Development and Integration for Complex Systems
- **SYSM 6326** Systems Life Cycle Cost Analysis
- **SYSM 6327** Systems Reliability

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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