Naveen Jindal School of Management

Master of Science in Energy Management

36 semester credit hours minimum

Faculty


Professor Emeritus: Dale Osborne

Clinical Professors: John Barden, David Cordell, Greg Durham, Randall S. Guttery, Peter Lewin, Jeffrey Manzi, Divakar Rajamani, Kannan Ramanathan, Arthur Selender, Kenneth Smith

Associate Professors: Nina Baranchuk, Zhonglan Dai, Rebecca Files, Dorothée Honhon, Kyle Hyndman, Surya N. Janakiraman, Robert L. Kieschnick Jr., Alp Muharremoglu, Ramachandran (Ram) Natarajan, Valery Polkovnichenko, Gil Sadka, David J. Springate, Kelsey D. Wei, Yexiao Xu, Alejandro Zentner, Yuan Zhang, Feng Zhao, Yibin Zhou

Clinical Associate Professors: Sonia Leach, Carolyn Reichert, Avanti P. Sethi

Assistant Professors: Bernhard Ganglmair, Bin Li, Jun Li, Meng Li, Ningzhong Li, Naim Bugra Ozel, Arzu Ozoguz, Anyan Qi, Alejandro Rivera Mesias, Alessio Saretto, Serdar Simsek, Christian Von-Drathen, Malcolm Wardlaw, Han (Victor) Xia, Steven Xiao, Shengqi Ye, Nir Yehuda, Jieying Zhang, Xiaofei Zhao

Clinical Assistant Professors: Shawn Alborz, Athena Alimirzaei, Moran Blueshtein, John Gamino, Ayfer Gurun, Liping Ma, Anastasia V. Shcherbakova

Visiting Assistant Professor: Lale Guler

Senior Lecturers: Arthur M. Agulnek, Frank Anderson, Anindita Bardhan, Tiffany A. Bortz, Richard Bowen, Monica E. Brussolo, George DeCourcy, Eugene (Gene) Deluke, Amal El-Ashmawi, Carol Flannery, Mary Beth Goodrich, Jennifer G. Johnson, Chris Linsteadt, Joseph Mauriello, Matt Polze, James Richards, Debra Richardson, Steven Solcher, Amy L. Troutman, Kathy Zolton

Degree Requirements

The Master of Science in Energy Management (MS EM) is a STEM (Science, Technology, Engineering and Mathematics) degree program (18-24 months) at the Naveen Jindal School of Management that prepares students for careers in energy companies including oil, gas, renewable energy and
electricity, banks and financial institutions that trade energy commodities, energy-focused consulting firms, and major energy consuming corporations.

The curriculum provides a practical learning component through projects developed by industry members that teach students how to value energy companies and projects, develop operating strategies, negotiate contracts and manage energy-specific risks. The development of the program was motivated by a high concentration of energy companies in the Dallas/Fort Worth area and the UT Dallas aim to address skill shortages in industries critical to the Texas economy. Students must maintain a 3.0 grade-point average (GPA) in both core courses and in aggregate courses to qualify for the MS degree.

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Prerequisites

Prerequisite knowledge in advanced math (probability/statistics) is required for the MS in Energy Management degree program. Applicants need to have earned a "B" or better in advanced math or its equivalent to satisfy the prerequisite. Applicants who have not satisfied this requirement may be admitted but will need to satisfy the prerequisite within the first semester of UT Dallas coursework, by taking OPRE 6301, Quantitative Introduction to Risk and Uncertainty in Business.

Course Requirements

Business Core Courses: 9 semester credit hours

- **FIN 6301** Financial Management
- **MECO 6303** Business Economics
- **OPRE 6302** Operations Management

Energy Core Courses: 15 semester credit hours

- **FIN 6335** Energy Finance
- **FIN 6336** Energy Accounting and Taxation
- **ENGY 6330** Energy Law and Contracts
- **MECO 6318** Energy Economics
- **OPRE 6389** Managing Energy: Risk, Investment, Technology (MERIT)

Elective Courses: 12 semester credit hours

The MS in Energy Management program offers students two options.
Option 1: Students may select 12 semester credit hours from the list of elective courses below.

Option 2: Students may select 12 semester credit hours from one of specialized tracks as outlined below if they wish to focus in a specific area of the industry.

- **FIN 6341** Energy Risk Management
- **FIN 6360** Options and Futures Markets
- **IMS 6343** Sustainability in a Global Business Environment
- **IMS 6360** International Strategic Management
- **IMS 6365** Cross-Culture Communication and Management
- **MECO 6312** Applied Econometrics and Time Series Analysis
- **MECO 6352** Financial Negotiation and Dispute Resolution
- **OB 6332** Negotiation and Dispute Resolution
- **OPRE 6332** Spreadsheet Modeling and Analytics
- **OPRE 6335** Risk and Decision Analysis
- **OPRE 6362** Project Management in Engineering and Operations
- **OPRE 6366** Global Supply Chain Management
  - or **OPRE 6378** Supply Chain Strategy
- **OPRE 6370** Global Logistics and Transportation
- **OPRE 6371** Purchasing, Sourcing and Contract Management
- **GISC 6381** Geographic Information Systems Fundamentals
- **ENGY 6331** Capstone Project in Energy

**MS in Energy Management Tracks**

**Energy Risk Management Track**

- **FIN 6306** Quantitative Methods in Finance (and) **FIN 6360** Options and Futures Markets
  - or **OPRE 7310** Probability and Stochastic Processes (and) **FIN 6381** Introductory Mathematical Finance
- **FIN 6341** Energy Risk Management
- **MECO 6352** Financial Negotiation and Dispute Resolution
- **OPRE 6335** Risk and Decision Analysis
Energy Analytics Track

MECO 6312 Applied Econometrics and Time Series Analysis
MKT 6337 Marketing Analytics Using SAS
OPRE 6332 Spreadsheet Modeling and Analytics
OPRE 6398 Prescriptive Analytics

International Energy Management Track

IMS 6343 Sustainability in a Global Business Environment
IMS 6360 International Strategic Management
IMS 6365 Cross-Culture Communication and Management
OB 6331 Power and Politics in Organization
OB 6332 Negotiation and Dispute Resolution
OPRE 6362 Project Management in Engineering and Operations

Energy Operations Track

OPRE 6366 Global Supply Chain Management
OPRE 6370 Global Logistics and Transportation
OPRE 6371 Purchasing, Sourcing and Contract Management
OPRE 6378 Supply Chain Strategy