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, Randall S. Guttery, Peter Lewin, Jeffrey Manzi, Divakar Rajamani, Kannan Ramanathan

**Associate Professors:** Nina Baranchuk, Zhonglan Dai, Rebecca Files, Dorothée Honhon, Kyle Hyndman, Surya N. Janakiraman, Robert L. Kieschnick Jr., Ningzhong Li, Alp Muharremoglu, Ramachandran (Ram) Natarajan, Valery Polkovnichenko, 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:** Sonia Leach, Carolyn Reichert, Avanti P. Sethi

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

**Clinical Assistant Professors:** Shawn Alborz, Athena Alimirzaei, Moran Blueshtein, John Gamino, Ayfer Gurun, Revansiddha Khanapure, Liping Ma, Drew Peabody, 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 36 semester credit hours STEM (Science, Technology, Engineering and Mathematics) degree program 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.

To apply for this degree program, an undergraduate degree is required (all majors are
Students must maintain a 3.0 grade-point average (GPA) in both core courses and in aggregate courses to qualify for the MS degree.

Prerequisites

Students pursuing the Master of Science in Energy Management (MS EM) degree program are required to complete one semester credit hour of ENGY 6102 Professional Development or its equivalent. In addition, knowledge of calculus and statistics are required. Applicants who have not satisfied these requirements may be admitted but will need to satisfy the prerequisites within the first 12 semester credit hours of graduate study, by taking OPRE 6303 Quantitative Foundations of Business and OPRE 6301 Statistics and Data Analysis with grades of "B" or better, as a degree-seeking student. Degree credit is not earned for program prerequisites, however, the grade achieved in prerequisites will count toward the student's grade-point average (GPA).

Course Requirements

Core Courses: 24 semester credit hours

- ACCT 6305 Accounting for Managers
- FIN 6301 Financial Management
- MECO 6303 Business Economics
- OPRE 6302 Operations Management

And

Choose four courses from the following courses:

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

Elective Courses: 12 semester credit hours

Students may select 12 semester credit hours from the list of elective courses below or from one of specialized tracks as outlined below if they wish to focus and gain an in-depth knowledge in a specific area of the industry. Students may also seek to substitute only one three semester credit hour graduate-level course within JSOM as a free elective in the degree plan with the approval of program director and the area coordinator.

- ENGY 6331 Capstone Project in Energy
- 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  

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  Predictive 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

1. Students may substitute both ACCT 6301 AND ACCT 6202 in lieu of ACCT 6305.