

Engineering Management Foundations (Certificate)

This certificate is for engineering, STEM, or technical students seeking or experiencing transitions into increasing levels of responsibility and/or management roles. The program provides students the principles and foundational concepts for the planning and operational management of industrial, engineering, and technical organizational pursuits. Students may qualify to have their credits transferred into the Master of Engineering Management (MEM) (<http://catalog.ncsu.edu/graduate/engineering/engineering-management/>) degree program.

More Information

[Engineering Management Program Website](#)

Admissions Information

To apply to the program, you need to:

- Complete an online application form
- Submit transcripts of all academic work after high school
- Provide a written personal statement

Admission is competitive, and the GRE is not required. Your academic success plays a significant role in the admission process. However, completing a certificate program does not guarantee entry into a graduate degree program. You should have a STEM or another relevant bachelor's degree.

Applicant Information

- **Delivery Method:** On-Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

Application Deadlines

Please visit The Graduate School Application Deadlines (<https://grad.ncsu.edu/admissions/deadlines/>) page for more information.

Plan Requirements

Code	Title	Hours
Leadership & Communication Course		3
Select one of the following courses:		
EM/EGR 501	Engineering Leadership and Strategic Change	
COM 530	Interpersonal Communication in Science and Technology Organizations	
COM 527	Seminar in Organizational Conflict Management	
COM 556	Seminar In Organizational Communication	
Financial Competency Course		3
Select one of the following courses:		
ISE 510	Applied Engineering Economy	
EGR 505	Managerial Finance for Engineers	
CE 567	Risk and Financial Management in Construction	
Project Management & Coordination Course		3

Select one of the following courses:

EM 530	Project Management	
CE 561	Construction Project Management	
EGR 590	Special Topics in Engineering (Engineering Project Management)	
BUS 554	Project Management	
Student Choice		3
Complete three (3) credit hours from the following courses:		
ISE/OR 501	Introduction to Operations Research	
ISE 535	Python Programming for Industrial & Systems Engineers	
ISE 537	Statistical Models for Systems Analytics in Industrial Engineering	
MBA 545	Decision Making under Uncertainty	
ST 515	Experimental Statistics for Engineers I	
ST 513	Statistics for Management and Social Sciences I	
ST 517	Applied Statistical Methods I	
TE 533	Lean Six Sigma Quality	
EGR 517	Facilities Engineering Systems	
EGR 518	Environmental Compliance for Facilities Engineers	
DSC 405	Data Wrangling and Web Scraping	
DSC 406	Exploratory Data Analysis for Big Data	
DSC 410	Data Internship Preparation for Social Impact	
DSC 412	Exploring Machine Learning	
DSC 495	Special Topics in Data Science	
DSC 595	Graduate Special Topics in Data Science	
Any 500-level course from the Master of Engineering Management (MEM) curriculum approved in conjunction with the academic committee		
Total Hours		12

Faculty

Director

Brandon M. McConnell, *Interim Director*

Full Professors

Sebastian Heese, *Owens Distinguished Professor of Supply Chain Management*

Jonathan Bohlmann, *Professor of Marketing and Innovation*

John Baugh, *Professor*

Joseph DeCarolus, *Professor*

Jingyan Dong, *Professor*

Shu-Cherng Fang, *Walter Clark Chair Professor and University Alumni Distinguished Graduate Professor*

Yahya Fathi, *Professor*

Rob Handfield, *Bank of America University Distinguished Professor of Operations and Supply Chain Management*

Ola Harrysson, *Edward P. Fitts Distinguished Professor*

Jessica Jameson, *Professor*

Edward Jaselskis, *E.I. Clancy Distinguished Professor*

Russell King, *Foscue Distinguished Professor*

Yuan-Shin Lee, *Professor*

Maria Mayorga, *Professor*

Rohan Shirwaiker, *James T. Ryan Professor*

Julie Swann, *A. Doug Allison Distinguished Professor and Department Head*

Daowen Zhang, *Professor*

Associate Professors

Karen Chen, *Associate Professor*

Adolfo R. Escobedo, *Associate Professor*

Xiaolei Fang, *Associate Professor*

Leila Hajibabai, *Associate Professor*

Tim Horn, *Associate Professor*

Michael Kay, *Associate Professor*

Tim Kraft, *Associate Professor of Operations and Supply Chain Management*

Osman Ozaltin, *Associate Professor of Personalized Medicine*

Daniel Saloni, *Associate Professor*

Jeffrey Stonebraker, *Associate Professor of Operations and Supply Chain Management*

Hong Wan, *Associate Professor*

Don Warsing, *Associate Professor of Operations and Supply Chain Management*

Xu Xu, *Associate Professor*

Assistant Professors

S Mohammad Hosseinian, *Assistant Professor*

Jordan Kern, *Assistant Professor*

Ben Rachunok, *Assistant Professor*

Sara Shashaani, *Assistant Professor*

Renran Tian, *Assistant Professor*

Associate Research Professor

Christopher D. Rock, *Associate Research Professor*

Teaching Professor

Corey Kiassat, *Teaching Professor*

Associate Teaching Professor

Meagan Kittle Autry, *Associate Teaching Professor*

S. Sebnem Ahiska King, *Teaching Associate Professor*

Fred Livingston, *Associate Teaching Professor*

Kanton Reynolds, *Associate Teaching Professor*

Teaching Assistant Professors

Donnie Hale, *Teaching Assistant Professor in Business Analytics*

Nur Ozaltin, *Teaching Assistant Professor*

Professor of the Practice

Steven DelGrosso, *Professor of the Practice*

Doug Morton, *Professor of the Practice*

James Rispoli, *Professor of the Practice*

Emeritus Faculty

Javad Taheri, *Associate Research Professor Emeritus*

Associate and Adjunct Faculty

Edwin Addison, *Adjunct Professor*

Lecturers

Ken Gregory, *Lecturer*

Dan Harris, *Lecturer*

Dan Kempton, *Adjunct Lecturer*

Robert Nunez, *Lecturer*