

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.

The Engineering Management Foundations Certificate consists of four (4) graduate courses and can be obtained on campus or 100% online.

Plan Requirements

Code	Title	Hours	Counts towards
Leadership & Communication Course		3	

Select one of the following courses:

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	
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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	
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Select one of the following courses:

ISE 754	Logistics Engineering		
BUS 554	Project Management		

CE 561	Construction Project Management		
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Quantitative Literacy / Student Choice	3
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Select one of 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		
CE/EGR 590	Special Topics In Civil Engineering (Intro into Facilities Engineering)		
EGR 590	Special Topics in Engineering (Environmental Compliance for Facilities Engineers)		

Any 500-level course from the Master of Engineering Management (MEM) curriculum approved in conjunction with the academic committee

Total Hours	12
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Faculty

Full Professors

Julie Ivy

Practice/Research/Teaching Professors

Brandon M. McConnell