

Essential Skills for Practicing Engineers, Certificate

Executive Director: Jeffrey Starke, Ph.D.

Master's Across Boundaries Certificates Programs webpage (<https://www.marquette.edu/engineering/graduate-degrees.php#Certificate>)

DEGREE OFFERED

Certificate

PROGRAM DESCRIPTION

The essential skills certificate integrates perspectives from across disciplines to develop and refine leadership skills, improve the ability to make decisions, synthesize technical data and communicate clearly and concisely. This interdisciplinary learning delivery provides students an opportunity to expand their understanding of finance, supply chain, legal issues, communication techniques and strategies for engineering leadership.

Faculty Sponsors: Jeffrey Starke, Ph.D. and Kate Trevey, M.Ed.

Essential Skills for Practicing Engineers Certificate

This flexible, interdisciplinary graduate certificate is intended to (1) explore and refine individual leadership skills, (2) expand the mindset of engineers to integrate cross-functional perspectives in decision making and (3) enable technical data synthesis and communication skills to create clear and concise deliverables that expedite decisions. The certificate in essential skills for practicing engineers (ESPE) includes curriculum across cross-functional partners including finance, supply chain, legal and communication skills and strategies for engineering leadership. Elective courses allow the students to integrate Marquette University's Jesuit values in ethical business practice and corporate and social responsibility.

The certificate in essential skills requires a total of 12 credit hours. The 12 credits of course work are proposed by a student in consultation with the program director or academic adviser. All certificate programs meet the requirements in the Graduate School Bulletin, including any course prerequisite requirements. Any deviations from the approved courses in the Graduate School Bulletin or course substitutions must be approved by the Certificate Faculty Sponsor, the executive director of Master's Across Boundaries program, and the associate dean for academic affairs in the Opus College of Engineering. This certificate is designed for practicing professionals. As such, it is anticipated that only the part-time option is likely to be pursued.

Code	Title	Hours
Required Course:		
GEEN 6700	Leadership Essentials: The Mindset and Skillset of a Leader	2
Elective Courses:		
Elective Course in College of Communication - choose one, 3- credit course from the following:		
CMST 5140	Intergenerational Communication	
CMST 5230	Managerial Communication	
CMST 5250	Leadership and Communication	
COMM 6825	Digital Communication Strategies for Leadership	
COMM 6953	Proseminar in Health, Science and Environment	
Elective Course in College of Business Administration/Graduate School of Management - choose one, 3-credit course from the following:		
BUAD 6000	Accounting and Finance for the Non-Financial Manager	
MBA 6020	Business Essentials: Accounting, Economics and Finance	
MBA 6110	Strategic Management Introduction	
MBA 6120	Concepts for Ethical Business Practice	
MBA 6130	Corporate Social Responsibility	
MBA 6200	Enterprise Risk Management	
OSCM 6931	Topics in Operations and Supply Chain Management (Supply Chain Strategy and Practice)	
Approved SCMM courses from online offerings.		
Other courses as approved by the Certificate Faculty Sponsor, the executive director of MAB program and the associate dean for academic affairs in the Opus College of Engineering.		
Other elective course options:		
COSC 5500	Visual Analytics	
LAW 7141	Copyrights	
LAW 7187	Environmental Law	

LAW 7232	Intellectual Property Law
LAW 7302	Products Liability
LAW 7342	Water Law

An additional course not already taken from the above COMM or COBA/GSM course lists.

Total Credit Hours:

12

University Policies

- Academic Censure - Graduate School (<https://bulletin.marquette.edu/policies/academic-censure/graduate/>)
- Academic Integrity (<https://bulletin.marquette.edu/policies/academic-integrity/>)
- Academic Misconduct (<https://bulletin.marquette.edu/policies/academic-misconduct-policy/>)
- Academic Program Definitions (<https://bulletin.marquette.edu/policies/academic-programs-defined/>)
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- Transfer Course Credit - Graduate School (<https://bulletin.marquette.edu/policies/transfer-course-credit-policy/graduate/>)
- Withdrawal - Graduate School (<https://bulletin.marquette.edu/policies/withdrawals/graduate/>)

Graduate School Policies

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- Academic Programs Overview (<https://bulletin.marquette.edu/graduate/policies/academic-programs-overview/>)
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- Essential Skills for Practicing Engineers, Certificate (p. 1)
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