Masters of Engineering with Concentration in Information Engineering and Management (M.Eng.)

Degree Offered:	M.Eng.
Director:	Dr. Dale W. Callahan, PE
Phone:	(205) 934-8480
E-mail:	iem@uab.edu
Website:	http://www.uab.edu/iem

IEM Admission Requirements

Admission to UAB Information Engineering and Management requires:

1. An undergraduate degree from a regionally accredited university.
2. Preference is given to engineering, math, science or technical-related undergraduate degrees.
3. Original transcripts from every college/university attended should be requested by the applicant and sent directly to the UAB Graduate School.
4. Relevant industry work experience as evidenced by your resume and three recommendations.
5. An essay answering the questions listed on the IEM website Apply Now page.
6. A video introducing yourself to IEM. The video should be less than 5 minutes in length. Please tell us a little about yourself, what you've done professionally and why you want to be admitted to IEM. The video should be posted to YouTube, marked unlisted with a limited access URL and the link emailed to iem@uab.edu.
7. An interview with the IEM admissions committee may also be required.
8. No GMAT/GRE required for admission to IEM.

To Apply:

Whether you are on campus or online, or some of both, here is what all entering clients need to do:

To Apply: Whether you are on campus or online, or some of both, here is what all entering clients need to do: Visit the UAB Graduate School website (uab.edu/graduate) and click the 'Apply Now' button to complete an application.

• Create an account and complete the application by filling out all necessary sections including biographical information, educational background information, providing the information of three references (the system will send an electronic request to each reference), uploading an essay which includes answers to the above questions, uploading a current resume, and providing payment for the application.

• IEM Requirements: The photograph and video link should be e-mailed to IEM directly at iem@uab.edu. (iem@uab.edu)

• We encourage applicants to complete their application early to make sure they are considered for admission as soon as possible. A complete application means that all materials (transcripts, essay, resume, etc.) have been received by the Graduate School and the video should be uploaded to YouTube.

• Acceptance is determined by the IEM Admissions Committee.

Late Applicants

Applicants who miss the Graduate School's deadline for admission may apply as "non-degree seeking" in **Apply Yourself** and pay an additional application fee. Late applicants are still required to submit the paperwork outlined above. The non-degree seeking deadline is typically 2-4 weeks before classes begin.

Additional Information

Number of Recommendations Required:	Three
Entrance Tests:	N/A

For more information, contact IEM Director-Dr. Dale Callahan, PE or IEM Program Manager-Maria Whitmire, MEng, CAP-OM; IEM, Hoehn 370, 1075 13th Street South, Birmingham, Alabama 35294-4440.
Telephone: 205-934-8480
E-mail: iem@uab.edu
Web: www.uab.edu/iem

Requirements		Hours
IEM 601	Introduction to IEM	1
IEM 602	Leading Collaborative Teams	1
IEM 603	Communication for Technology Executives	1
IEM 610	Communication for Technology Professionals	3
IEM 611	Leading Technical Organizations	3
IEM 612	Project Leadership	3
IEM 620	Technical Entrepreneurship	3
IEM 625	Technology and Innovation	3
IEM 630	Systems Engineering	3
IEM 631	Operational Decision-Making	3
IEM 645	Financial Concepts for Entrepreneurs	3
IEM 646	Strategic Planning	3
IEM 695	IEM Design Project	3
Total Hours		**33**

Courses

IEM 601. Introduction to IEM. 1 Hour.
This course is an introduction to Information Engineering and Management with a focus on readiness for graduate study. Program requirements and expectations will be presented. Software and collaboration tools will be introduced. Library access and resources will be reviewed and teams will perform learning exercises to demonstrate proficiency with the available tools.

IEM 602. Leading Collaborative Teams. 1 Hour.
This course will focus on building, leading, and evaluating collaborative teams. Topics will include managing geographically-dispersed teams, team communication, accountability, running effective meetings, facilitation skills, building consensus, and handling common problems.
Prerequisites: IEM 601 [Min Grade: C]

IEM 603. Communication for Technology Executives. 1 Hour.
This course will address communication issues unique to organizational executives. Topics will include functioning as the public face of the organization, working with the media, when to seek professional advice, and effective crisis management.
Prerequisites: IEM 602 [Min Grade: C]

IEM 610. Communication for Technology Professionals. 3 Hours.
This course focuses on recognizing, developing, and putting into practice effective communication skills. Lectures provide insights into presentation structure, style, and content. Self-evaluation exercises combined with personal coaching will help clients improve their professional speaking and presentation skills.

IEM 611. Leading Technical Organizations. 3 Hours.
This course will use case studies, assigned readings, guest lecturers, research projects, and discussion of current issues in technology to develop executive-level behaviors and thought-processes as preparation for starting or leading a technology organization.

IEM 612. Project Leadership. 3 Hours.
This course teaches the fundamental concepts of leading projects. The course will consider all aspects of project leadership including the use of standard methodologies. Best practices will be reviewed along with practical insights based on real-world project leadership experience.

IEM 620. Technical Entrepreneurship. 3 Hours.
This course is an introduction to entrepreneurship that begins with the development of personal insights and work habits that are fundamental to success within any organization.

IEM 625. Technology and Innovation. 3 Hours.
This course examines technological innovation as an element of organizational strategy. Topics include the nature and management of innovation, aligning technical teams with overall organizational strategy, and the role of innovation in launching and sustaining technology ventures.

IEM 630. Systems Engineering. 3 Hours.
This course focuses on the systems engineering lifecycle and its application to the design of complex systems. Topics include systems thinking, managing complexity, problem definition, solution design, solution implementation, quality assurance, and measuring effectiveness.

IEM 631. Operational Decision-Making. 3 Hours.
This course focuses on the critical role of information and analytical methods in optimizing operational decisions. A core set of analytical tools will be presented and discussed. Topics will include decision analysis, optimization, modeling, simulation, and data analysis.

IEM 645. Financial Concepts for Entrepreneurs. 3 Hours.
This course introduces financial concepts including the interpretation of financial statements, managing cash flow, time value of money, capital budgeting, and investment analysis.

IEM 646. Strategic Planning. 3 Hours.
This course will examine the nature of strategic thinking and the challenges of achieving strategic alignment. Topics will include the strategic planning process and methods for assessing strategic success.

IEM 690. Special Topics in Area. 1-3 Hour.
Special Topics in (Area).

IEM 695. IEM Design Project. 3 Hours.
This course is focused upon a final design project that incorporates the technical and entrepreneurial coursework taken previously. Projects will be assessed based on their technical design and financial justification.

IEM 696. IEM Internship. 1-3 Hour.
This course is available for students needing to register for an internship course while enrolled in the IEM program.