



# Alabama Commission on Higher Education

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## New Program Proposal

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The following must be submitted to complete a new program request:

### Submission Checklist:

- X New Program Proposal
- X Business Plan (<https://www.ache.edu/index.php/forms/>)
- X Undergraduate or Graduate Curriculum Plan (<https://www.ache.edu/index.php/forms/>)

### Primary Contact Information

**Institution:** The University of Alabama in Huntsville (UAH)

**Contact:** Dr. David Puleo

**Title:** Provost and Executive Vice President for Academic Affairs

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**Telephone:** 256.824.6337

### Program Information

**Date of Proposal Submission:** 12/15/2025

**Award Level:** Doctoral Degree

**Award Nomenclature (e.g., BS, MBA):** D.Eng.

**Field of Study/Program Title:** Engineering Management

**CIP Code (6-digit):** 15.1501

### Administration of the Program

**Name of Dean:** Dr. Keith Hollingsworth (Interim)

**Name of College/School:** College of Engineering

**Name of Chairperson:** Dr. Bryan Mesmer

**Name of Department/Division:** Industrial and Systems Engineering and Engineering Management (ISEEM)

### Implementation Information

**Proposed Program Implementation Date:** Fall 2026

**Anticipated Date of Approval from Institutional Governing Board:** February 2026

**Anticipated Date of ACHE Meeting to Vote on Proposal:** June 2026

**SACSCOC Sub Change Requirement (Notification, Approval, or NA):** Notification

**Other Considerations for Timing and Approval (e.g., upcoming SACSCOC review):**



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

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### I. Program Description

#### A. Concise Program Summary (one paragraph) to be included in ACHE Agenda:

The Doctor of Engineering (DEng) in Engineering Management is a doctoral program designed for engineers, scientists, and technical managers who seek to apply advanced engineering and management principles to complex, real-world problems. The program integrates systems thinking, applied research, and strategic leadership to prepare graduates for senior technical and executive roles in industry, government, and research organizations. The D.Eng. emphasizes the practical application of research knowledge rather than purely theoretical inquiry. Students complete advanced coursework in engineering management, decision analytics, and organizational strategy, culminating in a doctoral project that addresses a significant engineering management challenge. This applied research component demonstrates professional mastery, innovation, and measurable impact on organizational performance or public-sector outcomes.

#### B. Specific Rationale (Strengths) for the Program

List three (3) to five (5) strengths of the proposed program as specific rationale for recommending approval of this proposal.

1. Huntsville has one of the [highest concentrations of engineers](#) in the nation, in addition to having high concentrations of individuals with STEM degrees and doctoral degrees. The EM D.Eng. would serve the community by offering an avenue of personal and professional growth for engineers and STEM workers seeking to address complex industry problems with research-based solutions.
2. Beyond the Huntsville community, the EM D.Eng. degree would offer opportunities statewide. Currently UAH, UAB, and Auburn University offer master's degrees in Engineering Management and UNA offers an Engineering Management concentration to the Bachelor of Engineering degree. Several other institutions across Alabama, including the University of Alabama, Alabama A&M, and the University of South Alabama, offer degrees in specific engineering disciplines. However, the only institution to offer a doctoral degree related to Engineering Management is UAH's Ph.D. in Industrial and Systems Engineering degree with a concentration in EM. The D.Eng. degree would serve as a complement to UAH's EM Ph.D. and provide an additional path to a doctoral degree for those seeking to conduct applied research in industry.
3. The EM field has proven to be popular at UAH, with the current program featuring 98 students, comprising 60% of the ISEEM Department's total of 162 graduate students. With Carnegie Mellon's 2025 change to research activity classifications, the D.Eng. degree



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

---

would provide an additional path for former and existing EM master’s students to make a more immediate impact on UAH’s number of research-based doctoral degrees awarded. In the longer term, the D.Eng. degree could pull from a regional student pool to allow the program to be sustainable and support UAH’s ongoing efforts to return as an R1 institution.

### C. External Support (Recommended)

List external entities (more may be added) that may have supplied letters of support attesting to the program’s strengths and attach letters with the proposal at the end of this document.

N/A

### D. Student Learning Outcomes

List four (4) to seven (7) of the student learning outcomes of the program.

1. Demonstrate the ability to design, implement, and manage complex socio-technical systems by integrating engineering principles with strategic management practices.
2. Effectively communicate complex technical and managerial concepts to diverse stakeholders, including executives, engineers, policymakers, and the academic community.
3. Lead the adoption and management of emerging technologies, fostering innovation while ensuring alignment with organizational strategy, operational goals, and ethical standards.
4. Conduct original, applied research that advances engineering management knowledge and directly addresses high-impact industrial, organizational, or societal challenges.

### E. Similar Programs at Other Alabama Public Institutions

List programs at other Alabama public institutions of the same degree level and the same (or similar) CIP codes. If no similar programs exist within Alabama, list similar programs offered within the 16 SREB states. If the proposed program duplicates, closely resembles, or is similar to any other offerings in the state, provide justification for any potential duplication.

There are no similar doctoral programs with the same CIP codes in the state of Alabama. Of the institutions in the SERB with programs with the same CIP code (15.1501) or similar, those who conferred doctorate degrees in the latest reporting period of National Center for Education Statistics (2023-2024) were:

CIP Code	Degree Title	Institution with Similar Program	Justification for Duplication
15.1501	Engineering Management, D.E.	Southern Methodist University	It is important to offer a local program for Huntsville and AL.
14.0101	D.Eng, Engineering, General	Old Dominion University	It is important to offer a local program for Huntsville and AL.



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

---

### F. Relationship to Existing Programs within the Institution

Nearly all new programs have some relationship to existing offerings through shared courses, faculty, facilities, etc. Is the proposed program associated with any existing offerings within the institution, including options within current degree programs? **Yes**  **No**

If **yes**, please describe these relationships including whether or not the program will replace or compete with existing offerings: (**Note:** If this is a graduate program, list any existing undergraduate programs which are directly or indirectly related. If this is a doctoral program, also list related master's programs.)

This program would complement the ISEEM Department's Ph.D. in Industrial and Systems Engineering, specifically the concentration in Engineering Management. The D.Eng. in EM would share 67% coursework with the ISE Ph.D. EM concentration for a post-bachelor's entry and 54% for a post-master's entry. The D.Eng. degree would share the same full-time and part-time faculty who currently support the EM master's and doctorate program, including the two full-time faculty added to support Engineering Management in Academic Year 2025-2026. The D.Eng. would also be a natural progression for students who have completed the Department's master of science in engineering (MSE) with the Engineering Management concentration.

If **not**, please describe how the institution plans to support a program unrelated to existing offerings.

### G. Collaboration

Have any collaborations **within your institution** (i.e., research centers, across academic divisions, etc.) been explored? **Yes**  **No**

If **yes**, provide a brief explanation of the proposed collaboration plan(s) for the program:

Have collaborations with **other institutions or external entities** (i.e., local business, industries, etc.) been explored? **Yes**  **No**

If **yes**, provide a brief explanation of the proposed collaboration plan(s) for the program:

### H. Programmatic Accreditation

Select the appropriate program accreditor from the drop-down menu below:

Choose an item.

Provide a detailed timeline for gaining accreditation (i.e., when will full candidacy be reached?):

No external accreditation for this program.



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

---

### I. Professional Licensure

Will the program be considered a Professional Licensure Program based on the following definition: **Yes**  **No**

**Professional Licensure Program:** As defined in federal regulations, an instructional program that is designed to meet educational requirements for a specific professional license or certification that is required for employment in an occupation or is advertised as meeting such requirements.

If **yes**, please explain:

Select the appropriate licensure body from the table below:

Choose an item.

Select the appropriate license from the table below:

Choose an item.

### J. Professional Certification

Will students earn industry certifications while completing the degree or be prepared for industry certifications upon graduation? **Yes**  **No**

If **yes**, please explain:

### K. Admissions

Provide any additional admissions requirements beyond the institution's standard admissions process/policies for this degree level. Include prerequisites, prior degrees earned, etc.

In addition to fulfilling admission requirements set by Graduate School, applicants must also have:

- Post-bachelor's entry: Students with an existing bachelor's degree in a STEM field from an approved institution; minimum GPA of 3.0; GRE is not required, but the department reserves the right to request a GRE score on a case-by-case basis.
- Post-master's entry: For students with an existing master's degree in Engineering Management (EM) from an approved institution, a minimum GPA of 3.0 is required. The GRE is not required, but the department reserves the right to request a GRE score on a case-by-case basis. Students with a master's degree in a field other than Engineering Management will follow the post- bachelor's entry point.

### L. Mode of Delivery

Provide the planned delivery format(s) of the program as defined in policy (i.e., in-person, online, hybrid). Please also note whether any program requirements can be completed through competency-based assessment.



# Alabama Commission on Higher Education

Accessibility. Affordability. Coordination.

## New Program Proposal

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The program will be conducted with in-person class sessions which are recorded and made available to all students in Canvas, the university's online learning management system. The sections are typically listed as "traditional" (T) and asynchronous online (A). The program will fit the description of "distance education", where students can complete the entire program remotely. No requirements will be completed through competency-based assessment.

Can students complete the entire degree program through distance education (100% online) based on the following definition?      **Yes X No**

**Distance Education:** An academic program for which required instructional activities can be completed entirely through distance education modalities. A distance education program may have in-person requirements that are non-instructional (e.g., orientation, practicum).

### M. Instructional Site(s)

Provide the planned location(s) where the program will be delivered (i.e., main campus, satellite campus, off-campus site.) If the program will be offered at an off-campus site, provide the existing site name or submit an **Off-Campus Site Request** if new.

Will more than 50% of this program be offered at an off-campus site(s)      **Yes  No X**

If **yes**, which sites?

### N. Industry Need

Using the federal **Standard Occupational Code (SOC) System**, indicate the top three occupational codes related to post-graduation employment from the program. A full list of SOC codes can be found at <https://www.onetcodeconnector.org/find/family/title#17>.

SOC 1 (**required**): 11-9041.00 Architectural and Engineering Managers

SOC 2 (optional): 11-1021.00 General and Operations Managers

SOC 3 (optional): 17-2199.00 Engineers, all others

Briefly describe how the program fulfills a specific industry or employment need for the State of Alabama. As appropriate, discuss alignment with Alabama's Statewide or Regional Lists of In-Demand Occupations (<https://www.ache.edu/index.php/policy-guidance/>) or with emerging industries as identified by [Innovate Alabama](#) or the [Economic Development Partnership of Alabama](#) (EDPA).

The Alabama Demand Occupations ACCCP 2024-2025 lists "Architectural and Engineering Managers" (SOC 11-9041.00) and "General and Operations Managers" (SOC 11-1021.00) among the in-demand occupations in the state, with a collective 3885 annual job openings. Additionally, other engineering professions such as mechanical engineering, industrial engineering, and electrical engineering appear on the list, accounting for an additional 1155 annual job openings. The Engineering Management discipline also supports major industries



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

---

served by EDPA such as aerospace, automotive, technology, and distribution & logistics. The D.Eng. in EM would specifically support government entities concentrated in the Huntsville area related to NASA and the Department of War.

### O. Additional Education/Training

Please explain whether further education/training is required for graduates of the proposed program to gain entry-level employment in the SOC occupations selected above.

No further education or training is required.

### P. Student Demand

Please explain how you projected the student enrollment numbers in the **Business Plan, Lines 24-27** and provide evidence to substantiate student demand (i.e., surveys, enrollments in related courses, etc.).

In Spring of 2025, the UAH ISEEM Department had 56 students enrolled in its Ph.D. program across three disciplines- Engineering Management (EM), Industrial Engineering (IE), and Systems Engineering. Of those 56, 37 (66%) were in Engineering Management. Of the Engineering Management Ph.D. students, 65% were part-time students working full-time professional jobs. A survey was distributed to over 500 current or former UAH ISEEM graduate students to gauge interest and expectations of a doctoral program. The survey received 116 responses, with 22% (25) stating they have an interest in a doctoral degree in EM and 39% answered "maybe" for a total of 61% (46) expressing some degree of interest in pursuing a doctoral degree.

When asked to rate how important specific outcomes were (scale of 1-5 with 5 being most important) in their pursuit of a doctoral degree, the top rated answers were "applying engineering management to industry problems" (4.24/5 average rating) and "gaining leadership skills" (4.04/5); these outcomes are more closely associated with a doctorate of engineering vs. Ph.D. The outcomes more closely related to a Ph.D., "publishing research" (2.44/5) and "teaching opportunities" (2.6/5) were rated as having lower importance.

When presented with descriptions of what coursework and research look like for a D.Eng. vs. Ph.D., 74% chose the D.Eng. while 26% chose the Ph.D. When asked which of the two degrees were valued higher by their organization, 57% stated their organization was not aware of the difference, 11% stated they were valued equally, 16% stated the Ph.D. was valued higher, 5% stated the D.Eng. was valued higher, and 11% stated it was dependent on the role. When asked to choose primary reasons for choosing to pursue a doctoral degree (choose all that apply), 60% chose "earning potential", 51% chose "advance in current career", 42% chose "personal fulfillment or challenge", and 24% chose "transition to a career in academia or research". These findings further support a great interest in a D.Eng. program that has a stronger professional and industry-based focus.

Based on the current trends of ISEEM student interest, and the survey responses from current and former graduate students in the department, and nature of the Huntsville community, there is a strong alignment with the D.Eng. degree and the desired characteristics and outcomes voiced by the respondents.



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

The enrollment estimation from the Business Plan were derived from past enrollment in the UAH Engineering Management PhD program. In the PhD program, recent years saw 13 (AY 2022-23), 19 (AY 2023-24), and 13 (AY 2024-24) new students enrolled per year. The new enrollment in the D.Eng program ramps up to those numbers over 5 years. There is an anticipation that a portion of students who would enroll in the PhD program would instead choose the D.Eng program, as well as students who would not have considered a doctoral degree before this program became available. In the headcount calculations it is estimated that a full time student takes 2 years to complete the program and a part time student takes 4 years to complete the program. In the estimates, the bulk of new enrolled students are part time, similar to the current student distribution in the Engineering Management MS and PhD programs.

### II. Program Resources and Expenses

#### A. All Proposed Program Personnel

Provide all personnel counts for the proposed program.

Employment Status of Program Personnel		Personnel Information		
		Count from Proposed Program Department	Count from Other Departments	Subtotal of Personnel
Current	Full-Time Faculty	9	0	3
	Part-Time Faculty	2	0	2
	Administration	1	0	1
	Support Staff	2	0	2
**New To Be Hired	Full-Time Faculty	1	0	1
	Part-Time Faculty	0	0	0
	Administration	0	0	0
	Support Staff	0	0	0
<b>Personnel Total</b>				<b>9</b>

Provide justification that the institution has proposed a sufficient number of faculty (full-time and part-time) for the proposed program to ensure curriculum and program quality, integrity, and review:

UAH hired two new full-time faculty for engineering management in AY 2025-2026 to complement the current full-time faculty member. With these three faculty members all of the engineering management coded courses can be offered at least once per year. Part-time faculty members enable courses to be taught multiple times per year and in the summer to provide flexibility for student schedules.



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

UAH Industrial and Systems Engineering and Engineering Management department has an additional six full-time faculty members that teach courses that are required by the EM D.Eng. students, but that have specialties in Industrial or Systems Engineering (closely related fields).

A significant amount of faculty effort will be required to mentor the students through the praxis project; however, it is anticipated that the work load will be less than mentoring Ph.D. dissertations. In addition, faculty members from other colleges, such as the College of Business, have previously mentored Engineering Management Ph.D. students and are anticipated to mentor D.Eng. students in the future.

An additional full-time faculty member is anticipated once the program growth meets or exceeds expectations.

**Note:** Include *any new funds* designated for compensation costs (faculty, administration, and/or support staff to be hired) in the **Business Plan, Line 7 - Personnel Salaries and Benefits**. Current personnel salary/benefits *should not be included* in the Business Plan.

### B. Proposed Faculty Roster\*

Complete the following **Faculty Roster** to provide a brief summary and qualifications of current faculty and potential new hires specific to the program.

**\*Note:** Institutions must maintain and have current as well as additional faculty curriculum vitae available upon ACHE request for as long as the program is active, but CVs are **not** to be submitted with this proposal.

Current Faculty			
1	2	3	4
CURRENT FACULTY NAME (FT, PT)	COURSES TAUGHT including Term, Course Number, Course Title, & Credit Hours (D, UN, UT, G, DU)	ACADEMIC DEGREES and COURSEWORK Relevant to Courses Taught, including Institution and Major; List Specific Graduate Coursework, if needed	OTHER QUALIFICATIONS and COMMENTS Related to Courses Taught and Modality(ies) (IP, OL, HY, OCIS)
Nicholas Loyd (FT)	EM 660 Engineering Management Theory (3) (G) EM 747 Strategic Engineering Management (3)(G) EM 760 EM Structures and Systems (3)(G)	Ph.D. Industrial Engineering, UAH MSE Engineering Management, UAH BSE Industrial and Systems Engineering, UAH	Extensive history in application of EM principles in industry through funded research; experience advising and graduating doctoral students
Kristin Weger (FT)	EM 760 EM Structures and Systems (3)(G) EM 766 Managing Change in High Tech. Environment (3) (G) EM 741 Research Foundations (3) (G) EM 751 Research Methods for EM (3)(G)	Ph.D. Industrial and Organizational Psychology, University of Bamberg, Germany MA and BA, Psychology, UAH	Extensive history with global consulting and mentoring of engineers, executives, and managers in EM principles. Experience advising and graduating doctoral students



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

Current Faculty			
1	2	3	4
CURRENT FACULTY NAME (FT, PT)	COURSES TAUGHT including Term, Course Number, Course Title, & Credit Hours (D, UN, UT, G, DU)	ACADEMIC DEGREES and COURSEWORK Relevant to Courses Taught, including Institution and Major; List Specific Graduate Coursework, if needed	OTHER QUALIFICATIONS and COMMENTS Related to Courses Taught and Modality(ies) (IP, OL, HY, OCIS)
Jeffery Williams (FT)	EM 666 Engineering Project Management (3)(G) ISE 623 Engineering Economics (3)(G) ISE 638 Engineering Reliability (3)(G) ISE 627 Engineering Systems (3)(G)	PhD Applied Science (Engineering of Systems), SMU  M.A. Mathematics, University of West Florida  B.A. Mathematics, University of West Florida	Experience supervising graduate research on EM-related topics
Bryan Mesmer	EM 761 Evolving Theory in ISE and EM (3)(G)	Ph.D., Mechanical Engineering, State University of New York at Buffalo  M.S., Mechanical Engineering, State University of New York at Buffalo  B.S., Mechanical and Aerospace Engineering, State University of New York at Buffalo	Experience advising and graduating doctoral students
Dale Thomas (FT)	ISE 627 Engineering Systems (3) (G)	Ph.D., Systems Engineering-Computer Engineering   Mathematics, University of Alabama-Huntsville  M.S., Industrial Engineering-Electronic Engineering, North Carolina State University  B.S.E., Industrial & Systems Engineering, University of Alabama-Huntsville	Experience advising and graduating doctoral students



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

Current Faculty			
1	2	3	4
CURRENT FACULTY NAME (FT, PT)	COURSES TAUGHT including Term, Course Number, Course Title, & Credit Hours (D, UN, UT, G, DU)	ACADEMIC DEGREES and COURSEWORK Relevant to Courses Taught, including Institution and Major; List Specific Graduate Coursework, if needed	OTHER QUALIFICATIONS and COMMENTS Related to Courses Taught and Modality(ies) (IP, OL, HY, OCIS)
Hanumanthrao Kannan (FT)	ISE 734 Decision Analysis (3) (G)	Ph.D. in Aerospace Engineering, Iowa State University  M.S. in Astronautical Engineering, University of Southern California  B.E. in Aeronautical Engineering, Anna University, India	
Ana Wooley (FT)	ISE 539 Digital Engineering (3)(G)	Ph.D. Industrial and Systems Engineering, Auburn University  MS. Industrial and Systems Engineering, Auburn University  BS, Industrial Engineering, Universidade Federal de Itajubá, Brasil	Experience supervising graduate research on EM-related topics
Cheng Chen (FT)	ISE 726 Systems Modelling	Ph.D. in Mechanical Engineering, University of Georgia  M.Sc. in Aerospace Engineering, Florida Institute of Technology  B.S. in Mechanical Engineering, Century College of BUPT	
Howard Chen (FT)			Experience supervising graduate research on EM-related topics
Fayssal Safie, PhD (PT)	ISE 690 Statistical Methods for Engineers (3)(G)		
Chris Brown, PhD (PT)	EM 666 (3)(G)		
Additional Faculty (To Be Hired)			
1	2	3	4
FACULTY POSITION (FT, PT)	COURSES TO BE TAUGHT including Term, Course Number, Course Title, & Credit Hours (D, UN, UT, G, DU)	ACADEMIC DEGREES and COURSEWORK Relevant to Courses Taught, including Institution and Major; List Specific Graduate Coursework, if needed	OTHER QUALIFICATIONS and COMMENTS Related to Courses Taught and Modality(ies) (IP, OL, HY, OCIS)
FT	EM 660 Engineering Management Theory (3) (G)  ISE 690 Statistical Methods for Engineers (3)(G)	Ph.D. in ISE, EM, or related field	



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

---

Abbreviations: (FT, PT): Full-Time, Part-Time; (D, UN, UT, G, DU): Developmental, Undergraduate Nontransferable, Undergraduate Transferable, Graduate, Dual: High School Dual Enrollment  
Course Modality: (IP, OL, HY, OCIS): In-Person, Online, Hybrid, Off-Campus Instructional Site

### C. Equipment

Will any special equipment be needed specifically for this program? Yes  No

If **yes**, list the special equipment and include all special equipment costs in the **Business Plan, Line 8**:

### D. Facilities

Will new facilities or renovations to existing infrastructure be required specifically for the program?  
Yes  No

If **yes**, describe the new facilities or renovations and include all *new* facilities and/or *renovation* costs in the **Business Plan, Line 9**:

### E. Assistantships/Fellowships

Will the institution offer any assistantships specifically for this program? Yes  No

If **yes**, provide the number of assistantships to be offered and include all *new* costs for assistantships in the **Business Plan, Line 10**.

Explain the function of the Assistantships (i.e., teaching, research, etc.)?:

### F. Library

Will any **additional** library resources be purchased to support the program? Yes  No

If **yes**, briefly describe new resources to be purchased and include the cost of new library resources in the **Business Plan, Line 11**:

### G. Accreditation Expenses

If programmatic accreditation was indicated above, please include all accreditation costs in the **Business Plan, Line 12** and itemize and explain below:

### H. Other Costs

Please include all other costs incurred with program implementation, such as marketing or recruitment, in the **Business Plan, Line 13** and explain below:



# Alabama Commission on Higher Education

*Accessibility. Affordability. Coordination.*

## New Program Proposal

---

### III. Program Revenue and Funding

- A. Tuition Revenue:** Please describe how you calculated the tuition revenue that appears in the **Business Plan, Line 17**. Specifically, did you calculate using cost per credit hour or per term? Did you factor in differences between resident and non-resident tuition rates?

**Note:** Tuition Revenue should be proportional to total enrollment.

The tuition revenue was calculated for full-time students using a graduate student resident rate of \$5,835 for 9-15 credits for fall or spring semesters and \$4,290 for 6 credits for summer semester. It was assumed full-time students would take 9 credits in both fall and spring semesters and 6 credits in the summer semester. The tuition revenue was calculated for part-time students using a graduate student resident rate of \$4,290 for 6 credits for fall or spring semesters. It was assumed part-time students would take 6 credits in both fall and spring semesters and 0 credits in the summer semester. This is an approximation as many other students will take 3 credits each of the 3 semesters or one of many other combinations depending on their semester by semester workloads.

Hence it was approximated that a full-time student would generate \$15,960 in revenue per year and a part-time student would generate \$8,580 in revenue per year.

- B. External Funding:** Will the proposed program require external funding (e.g., Perkins, Foundation, Federal Grants, Sponsored Research, etc.)?      **Yes**  **No**

If **yes**, please include all external funding in the **Business Plan, Line 18** and explain specific sources and funding below:

- C. Reallocations:** For each year will tuition revenue and/or external funding cover projected expenses?      **Yes**  **No**

If **not**, budget reallocation may be required. Please include all reallocations in the **Business Plan, Line 19** and describe below how your institution will cover any shortfalls in any given year.

## ACADEMIC DEGREE PROGRAM BUSINESS PLAN

<b>INSTITUTION:</b>	The University of Alabama in Huntsville		
<b>PROGRAM NAME:</b>	Engineering Management Doctor of Engineering (D. Eng.)	<b>CIP CODE:</b>	15.1501
<b>SELECT LEVEL:</b>	GRADUATE (DOCTORATE)		

### ESTIMATED \*NEW\* EXPENSES TO IMPLEMENT PROPOSED PROGRAM

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL
PERSONNEL SALARIES & BENEFITS	\$0	\$0	\$287,700	\$287,700	\$287,700	\$287,700	\$287,700	\$1,438,500
EQUIPMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FACILITIES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ASSISTANTSHIPS/FELLOWSHIPS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
LIBRARY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACCREDITATION	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OTHER COSTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>TOTAL EXPENSES</b>	\$0	\$0	\$287,700	\$287,700	\$287,700	\$287,700	\$287,700	\$1,438,500

### \*NEW\* REVENUES AVAILABLE FOR PROGRAM SUPPORT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL
TUITION + FEES	\$74,820	\$117,720	\$192,540	\$278,340	\$321,240	\$407,040	\$492,840	\$1,884,540
EXTERNAL FUNDING	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
REALLOCATIONS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>TOTAL REVENUES</b>	\$74,820	\$117,720	\$192,540	\$278,340	\$321,240	\$407,040	\$492,840	\$1,884,540

### ENROLLMENT PROJECTIONS

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	AVERAGE
FULL-TIME ENROLLMENT HEADCOUNT	No data reporting	2	4	4	4	4	4	3.67
PART-TIME ENROLLMENT HEADCOUNT		10	15	25	30	40	50	28.33
<b>TOTAL ENROLLMENT HEADCOUNT</b>		12	19	29	34	44	54	32.00
<b>NEW ENROLLMENT HEADCOUNT</b>		7	7	12	12	17	17	12.00
Validation of Enrollment			YES	YES	YES	YES	YES	

### DEGREE COMPLETION PROJECTIONS

*Note: Do not count Lead "0"s and Lead 0 years in computing the average annual degree completions.*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	AVERAGE
<b>DEGREE COMPLETION PROJECTIONS</b>	No data reporting	0	2	7	7	7	12	7.00

\*New entails additional expenses or revenues associated with program implementation. Please include any planning or start-up expenses within Year 1 (even if these were incurred in Year 0 or prior). Do not include expenses or revenues already budgeted for a department or instructional unit prior to the development of this specific program. For instance, if new faculty will be hired to teach in this program, salary/benefits should be included for each year following hire, but salary/benefits for existing faculty would not be included.

### Minimum Viability Requirements

established in ACHE Administrative Code §300-2-1-.04,  
based on §16-5-8(2), Code of Alabama, 1975

Degree Level	New Enrollment	Degree Completions
Certificate	9.4	7.5
Associate	9.4	7.5
Bachelor's	9.4	7.5
Master's	4.7	3.75
Specialist	3.75	3
Doctorate	2.8	2.25

	Tuition		Tuition rate	
		Hr/Yr	Semester	Year
Fulltime	9+9+6	24 hr	5835	15960
PT	6+6	12 hr	4290	8580

## Graduate Curriculum Overview

### Graduate Curriculum Checklist:

1. Overview
2. Components
3. Options (as required)

### 1. Graduate Overview - Post BS

**Enter the credit hour value for all applicable components (N/A if not applicable). The credit hours MUST match the credit hours in the Curriculum Components table.**

Curriculum Overview of Proposed Program	
Credit hours required in <b>Program Courses</b>	36
Credit hours in <b>Program Options (concentrations/specializations/tracks)</b>	
Credit hours in <b>Program Electives</b>	6
Credit hours in <b>Required Thesis/Research</b>	12
Credit hours in <b>Required Capstone/Internship/Practicum</b>	
<b>Total Credit Hours Required for Completion:</b>	<b>54</b>

maximum number of credits that can be transferred in from another institution and applied to the program:	12
---	----

Intended program duration in semesters for full-time students:	7
--	---

Intended program duration in semesters for part-time students:	11-18
--	-------

Does the program require students to demonstrate industry-validated skills, specifically through an embedded industry-recognized certification, structured work-based learning with an employer partner, or alignment with nationally recognized industry standards?	YES	NO
	FALSE	TRUE

If **yes**, please explain (i.e., number of hours required, etc.):

	YES	NO
Does the program include any concentrations/ tracks/ options?	FALSE	TRUE

If **yes**, please explain (i.e., define):

## 2. Graduate Components - Post BS

Please provide all course information as indicated in the following table. Indicate new courses with "Y" in the associated column. If the course includes a required work-based learning component, such as an internship or practicum course, please indicate with a "Y" in the WBL column.

Insert Additional Rows as Needed				
<b>Institution:</b>	University of Alabama in Huntsville			
<b>Program Name:</b>	Engineering Management Doctor of Engineering (D.Eng.)			
<b>Program Level:</b>	GRADUATE (DOCTORATE)			
Curriculum Components of Proposed Program				
Course Number	Course Name	Credit Hours	New? (Y)	WBL? (Y)
Program Courses		36		
EM 660	Engineering Management Theory	3		
EM 666	Engineering Project Management	3		
EM 747	Strategic Engineering Management	3		
EM 760	EM Structures and Systems	3		
EM 766	Managing Change in High Tech Environment	3		
ISE 623	Engineering Economics	3		
ISE 627	Engineering Systems	3		
ISE 734	Decision Analysis	3		
ISE 690	Prob. and Stat. for Engineers	3		
EM 741	Research Foundations	3	Y	
EM 751	Reserach Methods	3	Y	
EM 761	Evolving Theory in ISE and EM	3		
Program Options (enter total credit hours from all options below)		0		
Program Electives		6		
	Approved graduate-level elective	3		
	Approved graduate-level elective	3		
Required Thesis/Research		12		
EM 797	Praxis	12	Y	
Capstone/Internship/Practicum				
Total Credit Hours Required for Completion:		54		

## Graduate Curriculum Overview - Post MS

### Graduate Curriculum Checklist:

1. Overview
2. Components
3. Options (as required)

### 1. Graduate Overview

**Enter the credit hour value for all applicable components (N/A if not applicable). The credit hours MUST match the credit hours in the Curriculum Components table.**

Curriculum Overview of Proposed Program	
Credit hours required in <b>Program Courses</b>	18
Credit hours in <b>Program Options (concentrations/specializations/tracks)</b>	
Credit hours in <b>Program Electives</b>	9
Credit hours in <b>Required Thesis/Research</b>	12
Credit hours in <b>Required Capstone/Internship/Practicum</b>	
<b>Total Credit Hours Required for Completion:</b>	<b>39</b>

maximum number of credits that can be transferred in from another institution and applied to the program:	12
---	----

Intended program duration in semesters for full-time students:	5
--	---

Intended program duration in semesters for part-time students:	7-12
--	------

Does the program require students to demonstrate industry-validated skills, specifically through an embedded industry-recognized certification, structured work-based learning with an employer partner, or alignment with nationally recognized industry standards?	YES	<b>NO</b>
	FALSE	TRUE

If **yes**, please explain (i.e., number of hours required, etc.):

	YES	<b>NO</b>
Does the program include any concentrations/ tracks/ options?	FALSE	TRUE

If **yes**, please explain (i.e., define):

## 2. Graduate Components - Post MS

Please provide all course information as indicated in the following table. Indicate new courses with "Y" in the associated column. If the course includes a required work-based learning component, such as an internship or practicum course, please indicate with a "Y" in the WBL column.

Insert Additional Rows as Needed				
<b>Institution:</b>	University of Alabama in Huntsville			
<b>Program Name:</b>	Engineering Management Doctor of Engineering (D.Eng.)			
<b>Program Level:</b>	GRADUATE (DOCTORATE)			
Curriculum Components of Proposed Program				
Course Number	Course Name	Credit Hours	New? (Y)	WBL? (Y)
Program Courses		18		
ISE 627	Engineering Systems	3		
ISE 734	Decision Analysis	3		
ISE 539	Digital Engineering	3		
EM 741	Research Foundations	3	Y	
EM 751	Reserach Methods	3	Y	
EM 761	Evolving Theory in ISE and EM	3		
Program Options (enter total credit hours from all options below)		0		
Program Electives		9		
	Approved graduate-level elective	3		
	Approved graduate-level elective	3		
	Approved graduate-level elective	3		
Required Thesis/Research		12		
EM 797	Praxis	12	Y	
Capstone/Internship/Practicum				
Total Credit Hours Required for Completion:		39		

# THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

## Resolution

### **Granting Approval of and Permission to Submit to the Alabama Commission on Higher Education (ACHE) a Proposal for a Doctor of Engineering (D.Eng.) Degree in Engineering Management (CIP Code 15.1501)**

WHEREAS, the College of Engineering at The University of Alabama in Huntsville (UAH) proposes a new Doctor of Engineering (D.Eng.) degree in Engineering Management, designed for engineers, scientists, and technical managers who seek to apply advanced engineering and management principles to complex, real-world problems; and

WHEREAS, the new degree program will meet the needs and demand of current and prospective students, and will provide new options for Engineering Management students who choose not to complete the existing Engineering Ph.D. program due to a lack of interest in conducting traditional academic research; and

WHEREAS, existing Engineering Management courses and programs are popular at UAH and the new program is expected to initially recruit primarily from the Huntsville community, where there is a heavy concentration of individuals from engineering and STEM backgrounds who seek advanced degrees related to their current occupations; and

WHEREAS, the D.Eng. degree in Engineering Management will offer different curriculum plans based on a post-bachelor's degree entry point and a post-master's degree entry point and integrates systems thinking, applied research, and strategic leadership to prepare graduates for senior technical and executive roles in industry, government, and research organizations; and

WHEREAS, the D.Eng. degree Engineering Management program is proposed for implementation in fall 2026 and will be administered under the Industrial and Systems Engineering and Engineering Management (ISEEM) Department and will rely on existing full- and part-time faculty, with a plan to add an additional full-time faculty member once the program is implemented and demonstrates its sustainability.

NOW, THEREFORE, BE IT RESOLVED by The Board of Trustees of The University of Alabama that the Board does hereby support and approve the Doctor of Engineering (D.Eng.) degree in Engineering Management (CIP Code 15.1501) at The University of Alabama in Huntsville and grants permission to submit this proposal to the Alabama Commission on Higher Education.

December 16, 2025

Mr. Sid J. Trant  
Chancellor  
The University of Alabama System  
Sid McDonald Hall  
500 University Blvd. East  
Tuscaloosa, AL 35401

Dear Chancellor Trant:

Attached for your consideration is a resolution and supporting documents for the creation of a new Doctor of Engineering (D.Eng.) degree in Engineering Management at UAH.

I seek support of this proposed program from you and the Board of Trustees and ask that it be placed on the agenda for the February 2026 meeting.

Sincerely,




Charles L. Karr  
President

Attachments

**MEMORANDUM**

Date: December 16, 2025

To: Charles Karr, President

From: Dave Puleo  David Puleo  
2025.12.16  
13:00:59 -06'00'  
Provost and Executive Vice President for Academic Affairs

Subject: New program package – D.Eng. in Engineering Management

Please see the proposal package and supporting documentation for the creation of a new Doctor of Engineering (D.Eng.) degree in Engineering Management in the College of Engineering.

The program proposal package is submitted for your review, approval, and forwarding to the Board for their February meeting.

Attachments



# University of Alabama System®

## New Program Proposal Supplement

In addition to the items ACHE has requested for program proposals, please include the following additional items when developing and submitting academic program proposals to the System Office and the Board of Trustees for approval.

### 1. Institution:

 UA UAB UAH

Please select more than one institution for cooperative, joint, and shared degree programs.

### 2. Program Identification

Program name: Doctor of Engineering in Engineering Management

Degree Nomenclature: D.Eng.

Date of NPP submission: 12/15/2025

3. Six-digit CIP Code: 15.1501

### 4. Executive Summary (not to exceed two pages)

The Industrial and Systems Engineering and Engineering Management (ISEEM) Department at The University of Alabama in Huntsville (UAH) proposes the development of a Doctor of Engineering (D.Eng.) program in the field of Engineering Management (EM). An EM D.Eng. program fits the needs of current and prospective ISEEM graduate students, who share the goal of using doctoral-level applied research to address complex industry problems.

The EM program at UAH was re-emphasized in Fall 2019 and has gained popularity, accounting for 98 of the ISEEM Department's 162 graduate students (60%) in Spring 2025, including 37 of the department's 56 Ph.D. students (66%). This indicates a strong trend in the EM student population expressing an interest in pursuing a doctorate degree. However, as most of these Ph.D. students reach the research phase of the Ph.D. degree, progress halts due a lack of comfort, or interest, in conducting traditional academic research. This implies the student population's interest in pursuing a doctoral degree diverges from the expectations of those typically associated with a Ph.D. program.

**5. Steps taken to determine if other UA System institutions might be interested in collaborating in the program.**

Based on current enrollment demographics in the ISEEM Department's graduate programs, the initial target audience for this program will primarily come from the Huntsville community. The Huntsville community has a heavy concentration of individuals with engineering and STEM education seeking advanced degrees, primarily based out of government and government contracting organizations operating on Redstone Arsenal. Many of these potential D.Eng. students would be current and former students from the master's programs within ISEEM. Thus, no formal collaboration with other UA System institutions was explored for this proposal.

A Notice of Pending Proposal (NPP) was submitted to the UA System on October 22, 2025 to seek feedback from other institutions within the system.

**6. Summary of other campus comments, internal to the UA System or external (if any), regarding your plans for developing this program. Please include substantive feedback from the pre-proposal process.**

Feedback received from early submission of Notice of Pending Proposal (NPP) to the UA System (submitted October 22, 2025):

Feedback from Dr. Gregg Janowski, Associate Dean of UAB's School of Engineering, on the UAH proposal:

"This is a solid and well-developed proposal. We have no concerns or suggested revisions at this time. The curriculum is appropriate and aligns well with current academic standards and industry expectations. Additionally, the degree program is timely, addressing emerging needs and trends in the field. We appreciate the thoughtful design and relevance of the program and look forward to its full proposal."

Feedback from UA (As provided by Interim Provost Lesley Reid):

**7. Describe the process that will be used by your institution for routine internal and/or external program review.**

The success of our program at achieving its objectives of preparing students effectively to solve complex industry problems using doctoral-level research-based solutions.

- Administering a student exit survey and tracking graduates, and their record of employment.
- Monitoring and modifying the curriculum by the ISEEM Department at 3-year intervals to fulfill the program objectives and preparing an annual program assessment report in consultation with the faculty.
- Engaging with ISEEM's Industrial Advisory Board (IAB) and meeting regularly to ensure that the skills being taught in courses align with career needs.

**8. Describe the process that will be used in assessing program outcomes (to include student learning outcomes).**

Data will be collected each fall and spring semester from current and graduating students in the D.Eng. program regarding students' degree progress and whether they have met learning outcomes. Graduating students complete an exit survey that provides them an opportunity to evaluate their courses, what they have learned, and provide feedback about what they perceive to be strengths and any weaknesses in the program. These self-report data are combined with the students' and faculty's feedback to provide a comprehensive assessment of the students and our programs.

**9. Other pertinent information, if any.**

N/A



# University of Alabama System<sup>®</sup>

## Board Rule 502

### Notice of Pending Proposal (NPP) for a New Program of Instruction

*(To be completed by the Provost's Office)*

#### 1. Institution:

UA

UAB

UAH

Please select more than one institution for cooperative, joint, and shared degree programs.

2. Date of NPP Submission (mm/dd/yyyy): 10/22/2025

#### 3. Contact Information

Institutional Contact Person: Dr. Bryan Mesmer

Telephone:

Email: bryan.mesmer@uah.edu

#### 4. Program Identification

Program Name: Doctor of Engineering in Engineering Management

Degree Nomenclature: D.Eng.

**5. 6-digit CIP Code:** 15.1501

**6. Program Mode of Delivery**

Provide the planned delivery format(s) (i.e., in-person, online, hybrid) of the program along with the planned location(s) at which the program will be delivered (i.e., on-campus and/or at specific off-campus instructional site(s)). Please also note whether any program requirements can be completed through competency-based assessment.

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> In-person    | <input checked="" type="checkbox"/> Online | <input type="checkbox"/> Hybrid           |
| <input checked="" type="checkbox"/> On-campus    | <input type="checkbox"/> Off-campus        | <input type="checkbox"/> Competency-based |
| <input type="checkbox"/> Other, please describe: |  |   |

**7. Select a meeting for Board consideration:**

- November 6-7, 2025
- February 5-6, 2026
- April 16-17, 2026
- June 11-12, 2026
- September 10-11, 2026
- November 5-6, 2026
- February 4-5, 2027
- April 1-2, 2027
- June 3-4, 2027
- September 9-10, 2027
- November 4-5, 2027
- February 3-4, 2027

**8. Is the proposed academic degree program currently listed on your campus Three-Year Academic Program Planning Report that is annually submitted to the Board of Trustees?**

Yes

No

**If no, please explain.**

At the time of the creation of the current plan, the number of students and level of community interest in such a program had not been realized.

**9. Provide a brief description of the program.**

The Doctor of Engineering (D.Eng.) in Engineering Management is a practice-based doctoral program designed for engineers, scientists, and technical managers who seek to apply advanced engineering and management principles to complex, real-world problems. The program integrates systems thinking, applied research, and strategic leadership to prepare graduates for senior technical and executive roles in industry, government, and research organizations.

The D.Eng. emphasizes the practical application of knowledge rather than purely theoretical inquiry. Students complete advanced coursework in engineering management, decision analytics, and organizational strategy, culminating in a doctoral project that addresses a significant engineering management challenge. This applied research component demonstrates professional mastery, innovation, and measurable impact on organizational performance or public-sector outcomes.

**10. Relationship of program to other programs within the institution.**

**10.1. How will the program support or be supported by other programs within the institution?**

This program will complement the Engineering Management Ph.D. concentration in the Industrial and Systems Engineering Department by offering a practice-based doctoral degree alternative for students seeking professional advancement.

**10.2. Will this program replace any existing program(s) or specialization(s), option(s) or concentration(s) within existing programs?**

Yes

No

**If yes, please explain:**

**11. If this program is similar or duplicative of any other programs in the system or the state, please give your rationale for program duplication.**

There is currently no similar or duplicative program elsewhere in the system or the state.

**12. Do you plan to explore possible program collaboration with other institutions? Please explain.**

There are no current plans to explore collaboration with other institutions.

**13. Please describe the need and/or level of student demand for this program.**

In Spring of 2025, the UAH ISEEM Department had 56 students enrolled in its Ph.D. program across three disciplines: Engineering Management (EM), Industrial Engineering (IE), and Systems Engineering. Of those, 37 are in Engineering Management. Of the Engineering Management Ph.D. students, 65% are part-time students working full-time professional jobs. A survey was distributed to over 500 current or former UAH ISEEM graduate students to gauge interest and expectations of a doctoral program. The survey received 116 responses, with 22% (25) stating they have an interest in a doctoral degree in EM and 39% answered "maybe" for a total of 61% (46) expressing some degree of pursuing a doctoral degree.

When asked to rate how important specific outcomes were (scale of 1-5 with 5 being most important) in their pursuit of a doctoral degree, the top rated answers were "applying engineering management to industry problems" (4.24/5 average rating) and "gaining leadership skills" (4.04/5); these outcomes are more closely associated with a D.Eng. vs. Ph.D. The outcomes more closely related a Ph.D., "publishing research" (2.44/5) and "teaching opportunities" (2.6/5) were rated as having lower importance. 