RICE UNIVERSITY

2025-2026

Certificates in Engineering Management and Leadership

Student Handbook

RICE ENGINEERING AND COMPUTING
Rice Center for Engineering Leadership

Introduction

This handbook provides general guidelines for graduate students in the Certificates in Engineering Management and Leadership program. Current certificates include:

- Certificate in Engineering Project Management
- Certificate in Product Management for Engineering Leaders

This handbook is intended to supplement the Rice University General Announcements, which contain graduate school regulations governing students, including deadlines and additional requirements. In addition to complying with the regulations stated in this handbook, students must also comply with the General Announcements and the Code of Conduct.

In case of error, omission, or conflict, policies of the General Announcements supersede those stated within this handbook. If the policies of the program change during a student's tenure at Rice University, the student can elect to continue studies under the complete set of policies in place at the time of his or her matriculation or may choose to follow the updated policies in full. Students may not choose some regulations from one set of policies and some from another. In rare cases, the faculty may apply a new regulation to all students who have not passed a specific milestone (e.g., candidacy) in their program if such a change will not materially affect the progress of the students. Students will be notified of such revisions.

It is the student's responsibility to be familiar with the rules, procedures, and requirements of the Professional Master's program in Engineering Management and Leadership, the Office of Graduate and Postdoctoral Studies, and Rice University. It is the ultimate responsibility of the student to know and follow all polices and timelines to allow for a timely graduation. A student failing to meet department or university requirements is subject to dismissal from the program.

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Certificates in Engineering Management and Leadership

Program Overview

In today's world, all major companies have become technology companies. Therefore, engineers are being increasingly involved in the creation of new ideas, products, and services, across all sectors of society. For companies to take full advantage of this new paradigm, they must hire people who have been extensively educated on the best ways of leading, managing, and inspiring teams of engineers and technical professionals who are digital natives.

Developed by the Rice Center for Engineering Leadership, the **Certificates in Engineering Management and Leadership (CEML)** program at Rice is a post-bachelor's degree academic credential program and is offered offered online or on-campus, with full-time and part-time options.

Current certificates include:

- Certificate in Engineering Project Management
- Certificate in Product Management for Engineering Leaders

Certain restrictions apply for international students:

- Online Certificate of Engineering Management and Leadership (CEML) students, pursuing either the Engineering Project Management or the Product Management for Engineering Leaders graduate certificate, that are international students living outside of the U.S. may not take on-campus and in-person courses.
- On-campus Certificate of Engineering Management and Leadership (CEML) students, pursuing either the Engineering Project Management or the Product Management for Engineering Leaders graduate certificate, that are international students must be sure to meet the full-time semester 9 credit hour minimum for on-campus instruction to meet visa requirements.

Requirements Overview

Graduate Certificate programs at Rice are post-bachelor's degree academic credential programs. Students pursuing the certificate in Engineering Project Management must complete:

- A minimum of 4 courses (10-12 credit hours, depending on course selection) of graduate-level study (graduate semester credit hours, coursework at the

500-level or above) to satisfy certificate requirements.

- A minimum of 9 graduate semester credit hours must be taken in standard or traditional courses (with a course type of lecture, seminar, laboratory, lecture/laboratory).
- An internship practicum (RCEL 541). Students may substitute RCEL 541 INTERNSHIP PRACTICUM FOR ENGINEERING LEADERS (1 credit hour) with a fourth course (i.e., the certificate elective) worth 3 graduate semester credit hours. If the student opts to take a certificate elective instead of the internship practicum, that elective course must be a standard or traditional course.
- All course requirements met with Rice University coursework (transfer credit not permitted).
- A minimum overall GPA of 2.67 or higher in all Rice coursework.
- A minimum program GPA of 3.00 or higher in all Rice coursework that satisfies requirements for the graduate certificate with a minimum grade of B- (2.67 grade points) in each course.

The courses listed on the following pages satisfy the requirements for the certificates. In certain instances, courses not on this official list may be substituted upon approval of the certificate's academic advisor, or where applicable, the Program Director. Course substitutions must be formally applied and entered into Degree Works by the certificate's Official Certifier. Additionally, these must be approved by the Office of Graduate and Postdoctoral Studies. Students and their academic advisors should identify and clearly document the courses to be taken.

NOTES

Certificate in Engineering Project Management

Learning Objectives

Upon completing the certificate in Engineering Project Management, students will be able to:

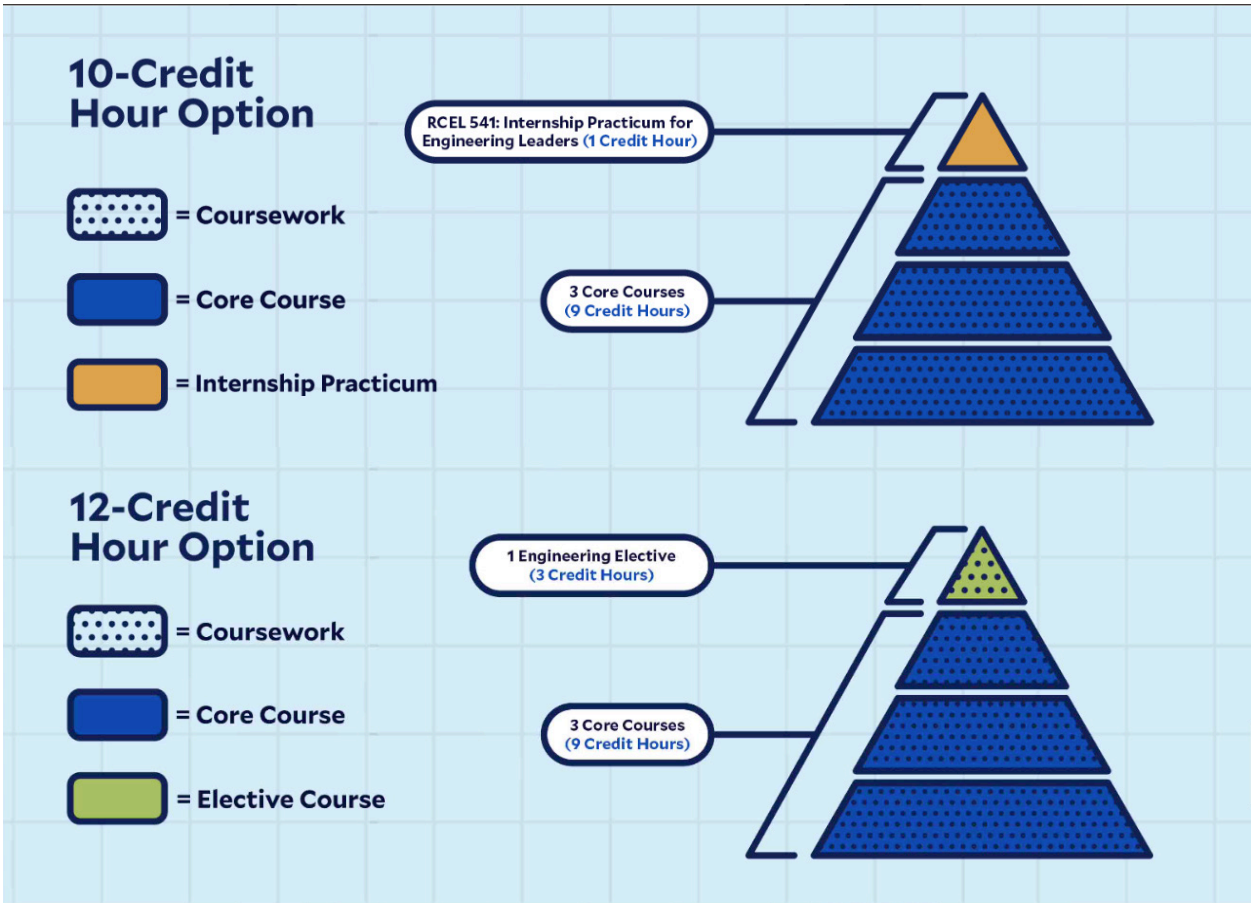
- Lead and manage engineering teams; excel at hybrid communications (i.e., to both technical and non-technical persons), managing projects, leading engineering teams, and inspiring people.
- Evaluate the economic viability of technology products and ideas; apply key principles of engineering entrepreneurship to determine if a technical product or idea is valuable and economically viable.

Certificate Requirements

The courses listed below satisfy the requirements for this certificate. In certain instances, courses not on this official list may be substituted upon approval of the certificate's academic advisor, or where applicable, the Program Director. Course substitutions must be formally applied and entered into Degree Works by the certificate's Official Certifier. Additionally, these must be approved by the Office of Graduate and Postdoctoral Studies. Students and their academic advisors should identify and clearly document the courses to be taken.

Total Credit Hours Required	**10-12**

Core Required Courses		
Code	**Course Title**	**Credit Hours**
RCEL 501	Engineering Management and Leadership, Theory and Application	3
RCEL 502	Engineering Project Management	3
RCEL 505	Engineering Economics for Leaders	3
Internship Practicum (Select 1 course from the following:)		
RCEL 541	Internship Practicum For Engineering Leaders	1
- or -		
	Certificate Elective	3



Internship Practicum and Course Elective Note

- Students may substitute RCEL 541 INTERNSHIP PRACTICUM FOR ENGINEERING LEADERS (1 credit hour) with a fourth course (i.e., the Certificate Elective) worth 3 graduate semester credit hours. (See Please Note below.) If the student opts to take the Certificate Elective, that elective course must be a standard or traditional course (with a course type of lecture, seminar, laboratory, lecture/laboratory) from the George R. Brown School of Engineering. Courses offered by the George R. Brown School of Engineering include the following subject codes: BIOE, CEVE, CHBE, CMOR, COMP, DSCI, ELEC, ENGI, GLHT, INDE, MECH, MSNE, RCEL, SSPB, and STAT. Please see https://courses.rice.edu for more information.
- Certificate of Engineering Management and Leadership (CEML) students, pursuing either the Engineering Project Management or the Product Management for Engineering Leaders graduate certificate, should work with their Program Advisor to identify and clearly document their internship practicum or certificate elective course. When the student opts for the Certificate Elective, the Program Advisor and Official Certifier should enter the approved course substitution into Degree Works. Students and their academic advisors should clearly document the course to be taken as they individualize student CEML certificate plans.

Certificate in Product Management for Engineering Leaders

Learning Objectives

Upon completing the certificate in Product Management for Engineering Leaders, students will be able to:

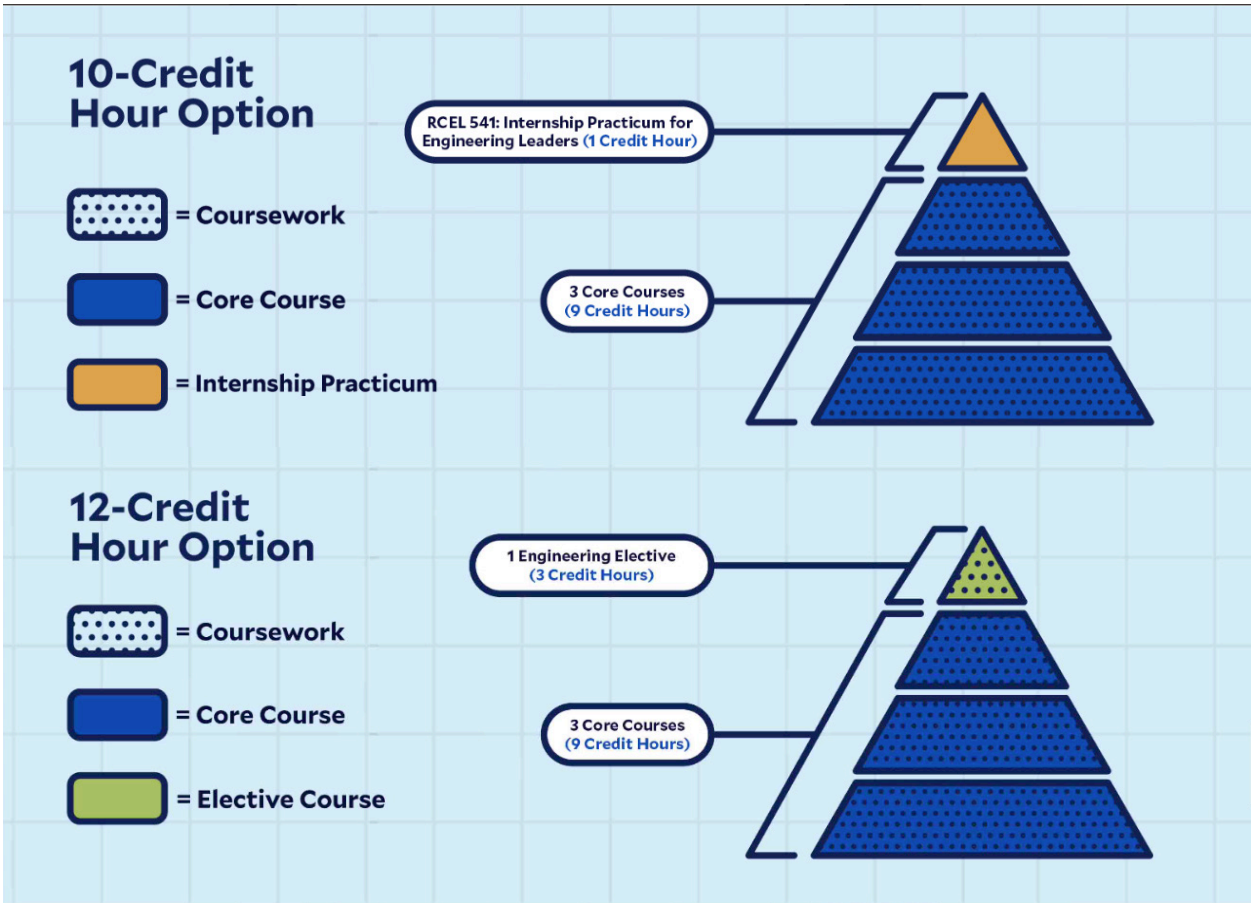
- Employ ethical-technical decision making; understand the susceptibility of engineering teams and organizations to ethical failure and devise creative technical solutions that are constrained by ethics-based boundaries.
- Apply the fundamental principles of data science, machine learning, and statistics to engineering decision making, and cast a vision for product management in an Industry 4.0 framework.

Certificate Requirements

The courses listed below satisfy the requirements for this certificate. In certain instances, courses not on this official list may be substituted upon approval of the certificate's academic advisor, or where applicable, the Program Director. Course substitutions must be formally applied and entered into Degree Works by the certificate's Official Certifier. Additionally, these must be approved by the Office of Graduate and Postdoctoral Studies. Students and their academic advisors should identify and clearly document the courses to be taken.

Total Credit Hours Required	**10-12**

Core Required Courses		
Code	**Course Title**	**Credit Hours**
RCEL 503	Engineering Product Management in Industry	3
RCEL 504	Ethical-Technical Leadership	3
RCEL 506	Applied Statistics and Data Science for Engineering Leaders	3
Internship Practicum (Select 1 course from the following:)		
RCEL 541	Internship Practicum For Engineering Leaders	1
- or -		
	Certificate Elective	3



Internship Practicum and Course Elective Note

- Students may substitute RCEL 541 INTERNSHIP PRACTICUM FOR ENGINEERING LEADERS (1 credit hour) with a fourth course (i.e., the Certificate Elective) worth 3 graduate semester credit hours. (See Please Note below.) If the student opts to take the Certificate Elective, that elective course must be a standard or traditional course (with a course type of lecture, seminar, laboratory, lecture/laboratory) from the George R. Brown School of Engineering. Courses offered by the George R. Brown School of Engineering include the following subject codes: BIOE, CEVE, CHBE, CMOR, COMP, DSCI, ELEC, ENGI, GLHT, INDE, MECH, MSNE, RCEL, SSPB, and STAT. Please see https://courses.rice.edu for more information.
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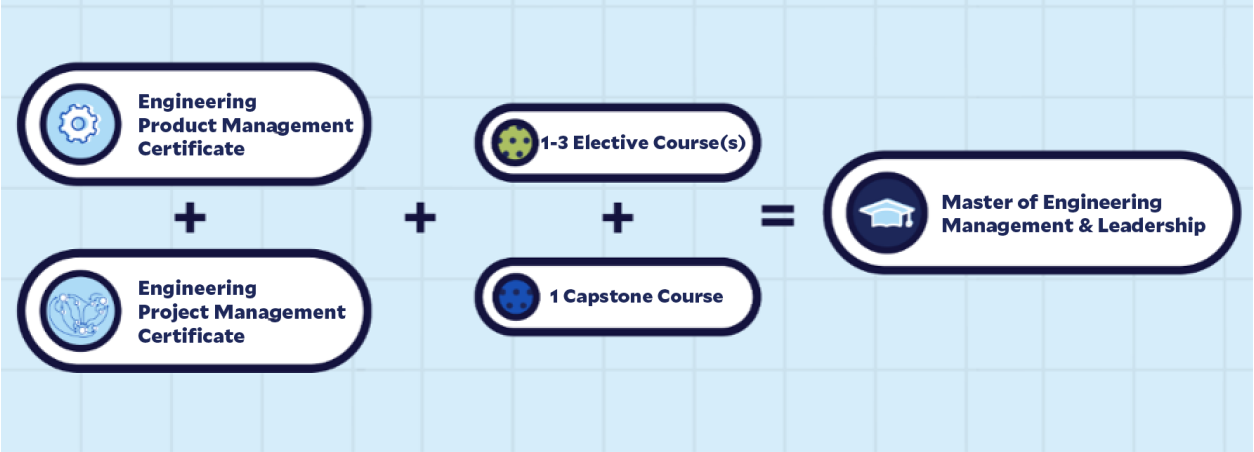
Stackable Graduate Certificates - Masters of Engineering Management & Leadership Option

While each Graduate Certificate in Engineering Management and Leadeeship is offered as a standalone credential, a unique aspect of the CEML program is the certificates are stackable – **that is, courses completed in the Certificate program can be applied to the requirements of the MEML degree.**

The CEML Program is a spin-off credential of the Master of Engineering Management and Leadership (MEML) degree program – that is, certificate requirements are constructed from existing MEML degree courses. Once a student completed two Graduate Certificates, they may complete one additional engineering elective and the MEML capstone to earn the MEML degree.



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Attendance

Attendance at class meetings is essential to academic success. Students are expected to take personal responsibility for class attendance and bear the responsibility for the effect that absences may have upon performance and evaluation in the course with consequences up to and including dismissal from the program.

Students are required to attend all scheduled activities for all of the classes for which they are registered during the entire course of the academic semester for which they are enrolled. Students with a legitimate reason to be absent from a class must specifically request permission from the professor in charge, or explain at the next available opportunity why an unforeseen event prevented them from attending. The academic calendar indicates normal class days, recesses, and holidays. Instructors, however, may schedule required activities on other days, including weekends, if required by programmatic needs, such as guest lectures or field trips.

Progress Review

Earning an advanced degree implies a high level of scholastic performance. In order to evaluate progress, the records and research performance of each graduate student will be reviewed annually. If the results of this review are not satisfactory, the program will either specify additional course of study or the student may be dismissed from the university.

Leave of Absence

A leave of absence may be granted only by the Office of Graduate and Postdoctoral Studies upon recommendation of the program and is granted only to students in good standing. Leave must be approved in advance of the academic semester in question. Normally, a leave of absence is granted for no more than two consecutive semesters. No work toward a degree may be done at Rice (or involve Rice faculty/facilities) during a student's leave of absence.

Financial Aid

There is no financial aid available from Rice University for students in the CEML program at this time.

Guidelines for Dismissals, Petitions, Appeals, Grievances and Problem Resolution

Students are encouraged to download and read the Office of Graduate & Postdoctoral Studies' guidelines for dismissal, petitions, appeals, grievances and problem resolution that can be obtained from the web site: https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/

In accordance with these guidelines, petitions, appeals, grievances and problems will be handled by the Directors of the Rice Center for Engineering Leadership/ MEML program. They will conduct an investigation of the circumstances and reach a decision regarding the case. Any decision they make can be appealed to the Dean of Engineering. The Dean will look at every case after viewing a written report from the co-directors of the MEML program and any written report the student wants to provide. The written report from the co-directors of the MEML program will describe the circumstances, the decision, and the rationale for the decision. The written report will be made available to the student, except for redactions to protect the privacy of other students.

Meet the
CEML Faculty

Drawn from Rice's George R. Brown School of Engineering and the Rice Center for Engineering Leadership, CEML faculty have demonstrated track records of technical leadership, engineering project management, and research expertise in many relevant engineering areas. At the same time, they also possess the technical and problem-solving skills and inventive spirit that is the hallmark of great engineers. Our award-winning faculty have served in leadership roles working for Fortune 500 companies and the U.S. Armed Forces. They bring unique leadership experience and a desire to share their understanding of engineering management with their students.

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About Rice University

Boasting a 300-acre tree-lined campus in Houston, Rice University is ranked among the nation's top 20 universities by U.S. News & World Report. Rice has a 6-to-1 undergraduate student-to-faculty ratio, and a residential college system, which supports students intellectually, emotionally and culturally through social events, intramural sports, student plays, lectures series, courses and student government. Developing close-knit, diverse college communities is a strong campus tradition, which is why Rice is highly ranked for best quality of life and best value among private universities.

RICE UNIVERSITY MISSION STATEMENT:

As a leading research university with a distinctive commitment to undergraduate education, Rice University aspires to pathbreaking research, unsurpassed teaching, and contribution to the betterment of our world. It seeks to fulfill this mission by cultivating a diverse community of learning and discovery that produces leaders across the spectrum of human endeavor.

The General Announcement

The Rice University General Announcements contain graduate school regulations governing students, including deadlines and additional requirements. In addition to complying with the regulations stated in this handbook, students must also comply with the General Announcements and the Code of Conduct. In case of error, omission, or conflict, policies of the General Announcements supersede those stated within this handbook. View the General Announcement here: https://ga.rice.edu/

Using ESTHER to Register for Classes

ESTHER is the web application for students, faculty, and staff. Students will use this application to register for classes, and retrieve certain data such as grades and account information. Using ESTHER, students can: indicate confidentiality preference, update contact information; register, add and drop courses; access final grades; view holds on accounts, etc.

See https://registrar.rice.edu/students/registration

Honor Code

The Honor System is one of the oldest traditions at Rice. Adopted by a vote of the student body in 1916, the system requires each Rice student to help ensure the validity of all examinations and assignments by adhering to a strict code of academic integrity. The Honor System reflects one of our strongest shared community values. It provides benefits such as take-home and unproctored exams. The Honor System also elevates our common experience by placing academic honesty at the center of our curriculum and by asking each of us to live by our honor code on a daily and continuing basis. The Honor System expresses our belief that the integrity of each individual is vital to the integrity of our entire community.

The Honor System is administered by the student Honor Council, whose members are elected annually by the student body. Students agree to report any suspected violations of the Honor Code to the Honor Council, which is responsible for investigating reported violations and recommending penalties where warranted. ***As a reminder of their commitment, students write and sign the following pledge on all work covered by the Honor Code: "On my honor, I have neither given nor received any aid on this (exam, paper, project, assignment)."***

All students at Rice University agree to abide by the Honor Code, which covers such matters as plagiarism and giving or receiving aid on exams. It is the obligation of every student at Rice to read the "Honor System Handbook," and to understand and maintain the honor system at all times. Specific information on the Honor Code can be found at: honor.rice.edu.

Code of Conduct

The Office of Student Judicial Programs oversees the judicial system, enforces the Code of Student Conduct. Students are expected to govern their conduct by standards of considerate and ethical behavior so as not to harm or discredit themselves, the University, or any other individual. Moreover, just as the learning environment does not end at the classroom door, neither is the exercise of individual responsibility, civility, and honor limited to the academic domain.

More information on this can be found on the Rice University Student Judicial Programs page here sjp.rice.edu/code-of-student-conduct.

Office of International Students and Scholars

The Office of International Students & Scholars is here to support all Rice internationals and the Academic Departments with all matters related to immigration, international compliance, and cultural adaptation.
Visit https://oiss.rice.edu/ for more information.

Title IX

Rice encourages any student who has experienced an incident of sexual, relationship, or other interpersonal violence, harassment or gender discrimination to seek support. There are many options available both on and off campus for all graduate students, regardless of whether the perpetrator was a fellow student, a staff or faculty member, or someone not affiliated with the university.

Students should be aware when seeking support on campus that most employees are required by Title IX to disclose all incidents of non-consensual interpersonal behaviors to Title IX professionals on campus who can act to support that student and meet their needs. The therapists at the Rice Counseling Center and the doctors at Student Health Services are confidential, meaning that Rice will not be informed about the incident if a student discloses to one of these Rice staff members. Rice prioritizes student privacy and safety, and only shares disclosed information on a need-to-know basis.

If you are in need of assistance or simply would like to talk to someone, please call Rice Wellbeing and Counseling Center, which includes Title IX Support: (713) 348-3311 Policies, including Sexual Misconduct Policy and Student Code of Conduct, and more information regarding Title IX can be found at safe.rice.edu.

Graduate Student Association

The Graduate Student Association (GSA) is comprised of degree-seeking graduate students at Rice University. The GSA mission is to enrich the graduate student experience and to represent, support, and promote graduate student interests and values. Visit gsa.rice.edu to learn more.

Quick Resources

- Academic Calendar: registrar.rice.edu
- Award Opportunities: engineering.rice.edu/gradopps
- Counseling Center: wellbeing.rice.edu
- Course Catalog: courses.rice.edu
- General Announcements: ga.rice.edu
- Graduate and Postdoctoral Studies Office: graduate.rice.edu
- Graduate Studies Form Library: graduate.rice.edu/forms
- Honor System and Code of Student Conduct: honor.rice.edu
- International Student Information: oiss.rice.edu
- International Student Forms: oiss.rice.edu/forms
- Language and Communications: capc.rice.edu
- Fondren Library Resources: library.rice.edu
- Map of Campus: rice.edu/campus-maps
- Parking: parking.rice.edu
- Professional Development Workshops: graduate.rice.edu/profdevelopment
- Student Wellbeing Office: wellbeing.rice.edu
- Recreation Center: recreation.rice.edu
- Registration: graduate.rice.edu/registration
- Rice Counseling Center: wellbeing.rice.edu/rice-counseling-center
- Rice Help Desk: oit.rice.edu/get-help, or email helpdesk@rice.edu
- Technology Support: it.rice.edu
- Title IX Information: safe.rice.edu
- University Fellowships and External Funding: graduate.rice.edu/

About the Rice Center for Engineering Leadership

The Rice Center for Engineering Leadership (RCEL) was established in 2009 with a gift from John ’73, ’74, and Ann ’75 Doerr. The official Engineering Leadership Certificate was approved in 2014. RCEL’s mission is to inspire, educate, and develop, ethical leaders in technology who will excel in research, industry, non-engineering career paths, or entrepreneurship.

RCEL’s programing enhances a traditional engineering education by providing skills not typically covered in the Rice engineering curriculum. Through a series of curricular and co-curricular learning experiences, RCEL students learn to create and communicate a vision, build a high-performing team, form and execute collaborative plans, and create innovations that endure.

The Need for Engineering Leaders
Many of the most important changes in the world today are driven by the creations of engineers. Breakthroughs in computing and biotechnology, for example, are changing the way people communicate, learn, and heal. Engineering leaders are at the forefront of these advancements, and RCEL’s Certificate program is intended to build the skills, motivations, and opportunities needed to become an engineering leader.

RCEL Undergraduate Certificate in Engineering Leadership

At the center of RCEL is the Engineering Leadership Certificate, an accredited academic credential aimed at preparing students for their first leadership role after graduation. The multi-year certificate program comprises a series of courses, labs, and RCEL-specific learning experiences that supplement the core curriculum of the School of Engineering. The RCEL Certificate Program allows students to learn fundamentals of engineering leadership, practice their leadership skills while participating in engineering-based hands-on activities, give and receive coaching, and critically reflect on their leadership experiences through a series of structured self-assessments.

Masters in Engineering Management and Leadership

In today’s world, all major companies have become technology companies. Therefore, engineers are being increasingly involved in the creation of new ideas, products, and services, across all sectors of society. For companies to take full advantage of this new paradigm, they must hire people who have been extensively educated on the best ways of leading, managing, and inspiring teams of engineers and technical professionals who are digital natives.

Housed in the Rice Center for Engineering Leadership, the Master of Engineering Management and Leadership program at Rice is a professional, non-thesis master's degree meant for technical professionals with engineering or related technical backgrounds; recent college graduates from engineering and the computational science fields should also apply.

The MEML program is offered online or on-campus, with full-time and part-time options. Students who have a BA or a BS degree in any field of engineering or related study may apply. Students must apply to either the online or on-campus program and will be explicitly admitted to one program or the other.

Visit engineering.rice.edu/meml to learn more.

Contact

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