

# DEGREE AND PROGRAM DEFINITIONS

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## Doctorate

### Doctor of Engineering (DEng)

The Doctor of Engineering (DEng) program is geared toward working professionals with prior professional experience in mobility and the automotive industry or electrical and computer engineering. This professional degree centers on engineering practice and application, problem-solving skills, and innovation to prepare graduates for technical leadership roles in industry.

The **D.Eng. in Automotive Systems and Mobility (ASM)** degree requires a minimum of 36 credit hours with a minimum of two 3 credit hour engineering courses and 30 credit hours in research.

The **D.Eng. in Electrical and Computer Engineering (ECE)** degree requires a minimum of 39 credit hours with a minimum of two 3 credit hour engineering courses, a leadership course and 30 credit hours in research.

### Doctor of Education (EdD)

The Doctorate in Education (Ed.D.) focuses on development of a high level and advanced proficiency in the education field of study as well as acquisition of research and leadership skills. The Ed.D. program requires a minimum of 60 credit hours to complete the program.

### Doctor of Philosophy (PhD)

The Doctor of Philosophy (PhD) programs are designed to train and develop students to become academic and research scholars. The four Ph.D. programs of the Rackham Graduate School of the University of Michigan-Ann Arbor are located, administered, and offered by UM-Dearborn. These programs observe the standards for admissions, registration, degree requirements, awarding of degrees, and other administrative policies and regulations established by the Executive Board of the Rackham Graduate School.

The **Ph.D. in Computer and Information Science (CIS)** program requires a minimum of 36 credit hours of post-bachelor coursework and a minimum of 24 credit hours in dissertation coursework for Ph.D. students entering the program without a prior M.S. degree, a minimum of 18 credit hours of post-bachelor coursework and a minimum 24 credit hours in dissertation coursework for Ph.D. students entering the program with a prior non-UM M.S. degree, and a minimum of 6 credit hours of post-bachelor coursework and a minimum 24 credit hours in dissertation coursework for Ph.D. students entering the program with a prior UM M.S. degree.

The **Ph.D. in Electrical, Electronics, and Computer Engineering (EECE)** program requires a minimum of 36 credit hours of post-bachelor coursework and a minimum of 24 credit hours in dissertation coursework for Ph.D. students entering the program without a prior M.S. degree, a minimum of 18 credit hours of post-bachelor coursework and a minimum 24 credit hours in dissertation coursework for Ph.D. students entering the program with a prior non-UM M.S. degree, and a minimum of 6 credit hours of post-bachelor coursework and a minimum 24 credit hours in dissertation coursework for Ph.D. students entering the program with a prior UM M.S. degree.

The **Ph.D. in Industrial and Systems Engineering (ISE)** program requires a minimum of 18 credit hours of coursework (beyond master's) and a minimum of 24 credit hours of Ph.D. dissertation.

The **Ph.D. in Mechanical Sciences and Engineering (MSE)** program requires a minimum of 36 credit hours of post-bachelor coursework and a minimum of 24 credit hours in dissertation coursework for Ph.D. students entering the program without a prior M.S. degree, a minimum of 18 credit hours of post-bachelor coursework and a minimum 24 credit hours in dissertation coursework for Ph.D. students entering the program with a prior non-UM M.S. degree, and a minimum of 6 credit hours of post-bachelor coursework and a minimum 24 credit hours in dissertation coursework for Ph.D. students entering the program with a prior UM M.S. degree.

## Specialist

### Education Specialist (EdS)

The Education Specialist (Ed.S.) degree is an advanced professional degree program that assists veteran educators already holding a Master's degree to enhance their knowledge of theory and best practice, to acquire skills in interpreting and using educational scholarship and research, and to understand processes of change and leadership in educational settings. The Ed.S. program is a 30-credit hour program with 9 credit hours of core courses, 18 credit hours of concentration area courses and 3 credit hours dedicated to an applied studies research project.

## Master

### Master of Arts (MA)

The Master of Arts (MA) provides in-depth learning beyond a bachelor's degree with a focused area of study in the humanities, social and behavioral sciences, and the arts. Such degree programs require a minimum of 30 credit hours.

### Master of Arts in Educational Leadership (MAEL)

The Master of Arts in Educational Leadership (MAEL) is designed to prepare students for roles in PK-12 school leadership. The Master of Arts in Educational Leadership (MAEL) is a 30 credit hour degree program.

### Master of Arts in Teaching (MAT)

The Master of Arts in Teaching program is designed for those who have completed a bachelor's degree in non-educational fields and wish to earn the Michigan Secondary Standard Teaching Certificate. The MAT degree is a unique Master's program, where students will take 33 credits of graduate level coursework, along with the required undergraduate coursework to meet the requirements of a content major and minor (if chosen).

### Master of Business Administration (MBA)

The MBA (Master of Business Administration) provides broad, integrated skills across all the major business functions and activities. The Master of Business Administration requires a minimum of 36 credit hours to complete, depending on an applicant's eligibility to receive core course waivers.

### Master Public Administration & Policy (MPAP)

The Master of Public Administration & Policy (MPAP) emphasizes the integration of practical skills and knowledge with an understanding of the concepts and theories that help leaders adapt those skills in an ever-changing environment. The MPAP requires 36 credit hours to complete. In addition, a 3-credit hour internship is required for those students who

do not have at least one year of administrator-level work experience with a nonprofit or governmental organization.

### **Master of Science (MS)**

The Master of Science (MS) provides in-depth learning beyond a bachelor's degree with a focused area of study in mathematics, sciences, engineering, or business. The Master of Science requires a minimum of 30 credit hours to complete. COB offers MS degrees, all requiring a minimum of 30 credit hours, in Information Systems, Business Analytics, Supply Chain Management, and Marketing. Perhaps adding "business" to the focus areas of study would suffice.

### **Master of Science in Accounting (MSA)**

The Master of Science in Accounting offers specialized training for careers in corporate accounting, controllership, and public accounting. The Master of Science in Accounting requires a minimum of 30 credit hours to complete.

### **Master of Science in Engineering (MSE)**

The Master of Science in Engineering is designed to strengthen students' technical, analytical and professional breadth and depth. All students receiving an MSE degree will complete a set of core engineering courses that covers the broader subjects of research and analysis. The Master of Science in Engineering requires a minimum of 30 credit hours to complete.

### **Master of Science in Finance (MSF)**

The Master of Science in Finance prepares students to succeed in a variety of finance careers, including corporate finance, investment management, banking, and careers within many other types of financial institutions. The Master of Science in Finance requires a minimum of 30 credit hours to complete.