

Graduate Degrees and Certificates

WPI offers master of science, master of engineering, master of mathematics for educators, master of business administration, and doctor of philosophy degrees, as well as graduate and advanced certificates.

The schedule of courses over a period of time generally allows a student taking three or four courses per semester to complete the course requirements for most Master's degree programs in about two years. Students taking two courses per semester complete the course requirements for the master of science or engineering degrees or the master of business administration degree in about three years.

Doctor of Philosophy (Ph.D.) Degrees

A PhD will allow you to engage in academic and research opportunities in your chosen field of study. Additionally, it will give you high level skills in the following areas:

- Analysis & Problem-Solving
- Interpersonal & Leadership Skills
- Project Management & Organization
- Research & Information Management
- Self-Management & Work Habits
- Written & Oral Communication

Experiential PhD: Pursuing Doctoral Studies While Working Full-Time

Experiential PhD is a framework for enabling full-time employees working in industry to simultaneously pursue their PhD degrees (part-time or full-time) in a cooperative partnership that includes their employer and WPI. Experiential PhD is itself not an academic program but rather provides logistical support for individuals pursuing PhD degrees within an academic program. The framework clearly defines roles and responsibilities of all parties involved, logistics, funding setup, intellectual property, and contractual processes.

Experiential PhD is designed to support the professional growth of industry-based PhD students via use-inspired research as well as obtain new knowledge, ideas, and innovation in both current and emerging areas. This is achieved by conducting doctorate-level research on real-world, challenging, technical problems to generate practical solutions while gaining industry skills and practice.

Master of Science (M.S.) Degrees

The master of science degree typically combines course work and research, either in the form of a thesis or a significant project. Some of our programs offer both thesis-based and non-thesis master of science degrees.

Master of Engineering (M.E.) Degrees

The master of engineering degree is coursework based, rather than research based.

Master of Architecture (M.Arch.) Degree

The Master of Architecture (M.Arch.) is a professional degree program that prepares graduates for the practice of architecture. The program balances core disciplinary competency with design practice to explore creative architectural and engineering solutions that address societal and environmental concerns in the built environment. Emphasis is placed on the completion of a design thesis where students learn to synthesize social, environmental, and technical thinking through informed design practice. The thesis project is supported by

coursework in a concentration area that emphasizes the broadening of technical and theoretical exploration of design and supporting topics. Students develop a tailored curriculum in close collaboration with a faculty advisor.

Master of Business Administration (M.B.A.) Degree

Building on WPI's strengths as a technological university, the WPI MBA provides STEM professionals with the business skills to drive change and lead innovation within technology-based organizations.

Master of Computer Science (M.C.S.)

The Master of Computer Science is an applied, terminal degree for professionals who benefit from a computer science skill set. Students who do not have a bachelor's degree in computer science (the earned equivalent of a four-year U.S. bachelor's degree is required to be considered for admission) but who would benefit from a stronger understanding of computer science applications will find this Master of Computer Science a good fit.

Master of Mathematics for Educators (M.M.E.) Degree

WPI offers a Master in Mathematics for Educators, a part-time program for teachers of mathematics at the middle school, secondary, and community college levels. Students in this program may earn a content-based degree afternoons and evenings while still teaching full time. Taught by professors of mathematics at WPI, the program is designed to permit the teachers to learn from professors' research interests and includes an understanding of current developments in the field. Scholarship aid, which covers approximately 40% of the cost of tuition, is available to qualified participants. The MME degree may be used to satisfy the Massachusetts Professional License requirements, provided the person holds an Initial License.

Master of Science in Mathematics for Educators (M.M.E.D.) Program

Designed especially for middle school, high school and community college educators, the Master of Science in Mathematics for Educators is a part-time, afternoon and evening program of study that puts emphasis on math content courses while also incorporating core assessment and evaluation theory coursework and a culminating project designed by the participant. Participants are additionally able to keep up-to-date on the latest research by working with professors in the field. The MMED may satisfy Massachusetts requirements to move from an Initial License to a Professional License.

Master of Science in Physics for Educators (M.P.E.D.) Program

Designed especially for middle school, high school and community college educators, the Master of Science in Physics for Educators is a part-time, afternoon and evening program of study that puts emphasis on physics content courses while also incorporating core assessment and evaluation theory coursework and a culminating project designed by the participant. Participants are additionally able to keep up-to-date on the latest research by working with professors in the field. The MPED may satisfy Massachusetts requirements to move from an Initial License to a Professional License.

Combined Bachelor/Master's Program - Current Students and Recent Alumni

WPI undergraduates and recent alumni (graduated within five years of Bachelor's degree completion) can begin work on a graduate degree by enrolling in a combined Bachelor's/Master's program. This accelerated course of study allows students to obtain a Master's degree typically within one year once the Bachelor's degree is completed. Students often obtain the Bachelor's and Master's in the same field or department, but with careful planning some students complete the combined Bachelor's/Master's program in two different fields. Students are encouraged to review the various options available for pursuing the combined Bachelor's/Master's program within a specific department or program by visiting the relevant section within the Graduate Catalog.

Since combined Bachelor's/Master's program students use several approved courses to satisfy the requirements of both degrees simultaneously, it is crucial for them to plan their curriculum early in their undergraduate studies.

Interdisciplinary Master's and Doctoral Programs

WPI encourages interdisciplinary research. Students interested in such options should do so with the assistance of WPI faculty, as these programs require internal sponsorship.

Graduate Certificate Program

The Graduate Certificate (GC) provides opportunities for students holding undergraduate degrees to continue their study in an advanced area. A bachelor's degree is the general prerequisite; however, some departments also look for related background when making admission decisions. GC students are required to complete four to six courses totaling 12 to 18 credit hours in their area of interest. GC courses can be applied to a WPI graduate degree if the student is subsequently admitted to a degree program in the same discipline.

Additional programs may be developed in consultation with an academic adviser.

Advanced Certificate Program

The Advanced Certificate (AC) provides master's degree holders with an opportunity to continue their studies in advanced topics in the discipline in which they hold their graduate degrees or that is closely related to their graduate fields. The AC includes four to six courses totaling 12 to 18 credits, none of which were included in the student's prior master's program or in any other certificate program.

Each participating department identifies one or more guideline programs; however, each student's program of study may be customized with the academic advisor's approval to satisfy the student's unique interests.

Additional specializations may be developed in consultation with an academic advisor.