WPI Degree Requirements

WPI Degree Requirements

(effective for students matriculating after August 1, 2011)

WPI's academic requirements are specifically designed to develop an overall educational experience which meets the goals of the college. Each requirement plays a supporting role as follows:

- To provide intellectual breadth and a better understanding of themselves and the diversity and creativity of human experience, every WPI student must complete a Humanities and Arts Requirement;
- To provide an understanding of the priorities of other sectors of society, develop the ability to communicate
 effectively with disparate groups, organize and derive solutions to complex problems, and gain an
 awareness of the interrelationships between technology and people, every WPI student must complete an
 Interactive Qualifying Project (IQP);
- To provide a capstone experience in the professional discipline, to develop creativity, instill self-confidence and enhance the ability to communicate ideas and synthesize fundamental concepts, every student must complete a Major Qualifying Project (MQP);
- To provide for learning through an academic program with fabric and course balance while encouraging individual student choices within that framework, every student must fulfill Distribution Requirements.

WPI Terms and Credit Units

The Bachelor degree from WPI normally is based upon a residency at WPI of 16 terms. WPI operates on a system with four seven-week terms, two in the autumn semester (Terms A and B) and two in the spring semester (Terms C and D). A summer session, Term E, is also available. The normal academic load for each term is defined as one unit of work, usually divided among three courses or projects. Thus, the usual credit unit for courses or independent study/projects is 1/3 unit. Qualifying Projects require one full unit of activity which may be concentrated into a single term (especially if conducted off-campus) or spread throughout an academic year. The degree will be awarded upon completion of the following:

DEGREE REQUIREMENTS:

- 1. <u>The Humanities and Arts Requirement</u> Qualification by overall evaluation of two units of work in the humanities and arts.
 - To provide intellectual breadth and a better understanding of themselves and the diversity and creativity of human experience, every WPI student must complete a Humanities and Arts Requirement.
- 2. The Mathematics and Science Requirement (See distribution requirements for individual programs)
 - The Mathematics and Science Requirement defines a minimum standard of scientific, technological, engineering, and mathematical literacy for graduates of WPI, regardless of major field. Most degree programs will provide a substantial level of preparation in most of these areas, far beyond this standard. Students will satisfy this requirement by satisfying the program requirements of their individual major programs.
 - The goals of the Mathematics and Science Requirement at WPI are that students will be able, in their careers and daily lives, to: 1) explain and apply key concepts and principles of scientific disciplines and use an understanding of scientific methods to make critical judgments, 2) apply mathematical methods to understand the solution of real-world problems, 3) productively and appropriately use computers and other technology, 4) use methods from the quantitative, natural or engineering sciences to systematically identify, formulate, and solve problems.
 - The specific requirement is two units of work in science, engineering, mathematical science or computer science. Two-thirds units of work must be in Quantitative Science; two-thirds units of work must be in Natural or Engineering Science; the final two-thirds unit may be from any of the

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Quantitative, Natural, or Engineering Sciences. Each major program may decide which courses and/or prefixes count for each category. Each major program may set more restrictive requirements as the program sees fit.

3. The Interactive Qualifying Project

 Successful completion of a qualifying project relating science and/or technology to society (the Interactive Qualifying Project, or IQP) representing at least one unit of credit in project or independent study work. The format of the documentation is to be in accordance with current WPI policy on such documentation.

4. The Major Qualifying Project

- Successful completion of a qualifying project in the major area of study (the Major Qualifying Project, or MQP) representing at least one unit of credit in project or independent study work. The format of the documentation is to be in accordance with current WPI policy on such documentation.
- 5. **Distribution Requirements** (See program description for specified departments)
 - Satisfaction of published academic activity distribution requirements in or relating to the major area of study. These requirements typically total no more than ten units (including the MQP and two units to fulfill the Mathematics and Science Requirement) and are specified by general topical subject area, not by specific courses. Completion of distribution requirements will be certified by the appropriate Program Review Committee (PRC), upon recommendation by the student's academic advisor. For students desiring designation of a major area for which a determination regarding distribution requirements has not previously been made and published, a faculty committee will be appointed by the department head or DIGS dean to review and approve the student's program of study.

6. Social Sciences

Completion of 2/3 unit of work in the social sciences, exclusive of qualifying project.

7. Residency Requirement

 A minimum of eight units must be completed satisfactorily in residence at WPI. (It is anticipated the normal residence at WPI will be 16 terms.)

8. Minimum Academic Credit

 The minimum academic credit required for the Bachelor degree is 15 units. Credit accumulated beyond the published distribution requirements shall be accomplished by the addition of "free elective" work.

9. Wellness and Physical Education

 Qualification in wellness and physical education shall be established by completing 1/3 unit of course work (four WPE classes) or its equivalent. Such an equivalent, for example, may be participation in club or varsity sports.

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