The Interactive Qualifying Project

At WPI, students are expected to develop an understanding of how science and technology are embedded in the fabric of society. The Interactive Qualifying Project (IQP) challenges students to address a problem that lies at the intersection of science or technology with society. During the IQP, students work in interdisciplinary teams, often with an external sponsoring organization, to address real world problems. In doing so, students learn something about the role of science and technology, its impact on society, its place in meeting human needs and human efforts to regulate, control, promote and manage our changing technologies. The IQP is equivalent to three courses, typically undertaken in a student's junior year. It can be completed over three terms, or as a full course load for a student for one term, and it can be completed on-campus, or at one of our many residential project centers in the U.S. and abroad. For more on the IQP, visit https://www.wpi.edu/academics/undergraduate/interactive-qualifying-project. For more on the IQP and study abroad, see the Global Projects Program website. Completed IQP reports are electronically archived and made available to the public through Digital WPI, managed by WPI's Gordon Library (https://digital.wpi.edu/).

IQP Learning Outcomes

The Faculty adopted the following statement defining learning outcomes for the IQP. Successful completion of an IQP is an important element in helping students achieve WPI's overall undergraduate learning outcomes.

Students who complete an Interactive Qualifying Project will:

- 1. Demonstrate an understanding of the project's technical, social and humanistic context.
- 2. Define clear, achievable goals and objectives for the project.
- 3. Critically identify, utilize, and properly cite information sources, and integrate information from multiple sources to identify appropriate approaches to addressing the project goals.
- 4. Select and implement a sound methodology for solving an interdisciplinary problem.
- 5. Analyze and synthesize results from social, ethical, humanistic, technical or other perspectives, as appropriate.
- 6. Maintain effective working relationships within the project team and with the project advisor(s), recognizing and resolving problems that may arise.
- 7. Demonstrate the ability to write clearly, critically and persuasively.
- 8. Demonstrate strong oral communication skills, using appropriate, effective visual aids.
- 9. Demonstrate an awareness of the ethical dimensions of their project work.

Preparing for and Finding an IQP

Students are encouraged to view the IQP as a learning opportunity – a chance to gain knowledge outside their major field – while working with others to address open-ended, complex problems. The best approach is to consult with one's academic advisor and select courses to be taken in the first and second year at WPI that can provide a foundation for an IQP in the junior year. Often project preparation involves developing an understanding of the social sciences and humanities, as the concepts and analytical techniques of these disciplines are important in understanding the social context of science and technology. In addition, students enrolled in the Global Projects Program for their IQP will be expected to complete a course devoted to project preparation in advance of their travel.

Project topics originate with external organizations, faculty and students. Students who complete IQPs at an off-campus project center through the Global Projects Program work on project topics identified by external sponsoring organizations. Students can explore these opportunities in eProjects (eprojects.wpi.edu) and at the Global Opportunities Fair organized each September by the Global Experience Office (GEO, https://www.wpi.edu/offices/global-experience). Students completing projects on campus are encouraged to seek faculty members that share their interests to advise projects. Faculty interested in advising specific IQPs

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will post their project topics in eProjects (eprojects.wpi.edu). The Global School also hosts an On-Campus Project Opportunities Fair each March where students can meet faculty advisors to discuss projects being offered on campus during the following year.

The Global School and Global Experience Office offer administrative support for project activities. Students are welcome to seek further assistance from the staff on the first floor of the Project Center.

What are IQPs About? Science, Technology, and Society

A detailed explanation of the IQP and its options can be found at https://www.wpi.edu/academics/undergraduate/interactive-qualifying-project. Proposed projects can be located in eprojects.wpi.edu. IQP (and MQP) projects are searchable in Digital WPI (https://digital.wpi.edu/).

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