



WORCESTER POLYTECHNIC INSTITUTE
GLOBAL PROJECTS PROGRAM

Worcester Polytechnic Institute is a private university located in the heart of New England. WPI was founded in 1865 with the mission of providing an education that balances theory and practice. The university's pioneering project-based undergraduate education provides students with extensive experience applying their classroom knowledge through hands-on projects with real-world impact.



OUR SIGNATURE PROJECT-BASED CURRICULUM

Since 1970, project-based learning has been the core of WPI's undergraduate curriculum, providing students a professional and social context in which to apply their acquired skills and abilities. The curriculum features integrative project work across four years, both in the major and in general education, in classrooms and around the world—including three major projects that are degree requirements. Students work closely with faculty and each other to develop solutions to real-world problems in communities around the globe. Participating in team and individual research settings, students tackle authentic, open-ended projects under faculty guidance. In the process, they master critical thinking, sharpen research skills, fine-tune written and oral communication skills, and connect the curriculum to local and global issues.

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The Global Projects Program Not Your Typical Study Abroad

WPI's global project impact stretches back decades to 1974, when the first WPI students participated in the new Washington, DC Project Center, the first of what would become a worldwide network of project centers across six continents. Today, with over 50 project centers in the U.S and abroad, our distinctive program provides students the opportunity to immerse themselves in projects located in settings from remote mountainside villages to international cities. Since the start of the Global Projects Program, thousands of WPI students have had global experiences that have contributed to authentic, meaningful change in the world while also shaping their WPI careers and, indeed, the rest of their lives.

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45

years of undergraduate
project experiences through
the global projects program



100%

of students receive a
global project scholarship
(as of Class of 2022)



31

countries with
project centers



#1

school for a scientist
to study abroad
(Popular Mechanics 2017)



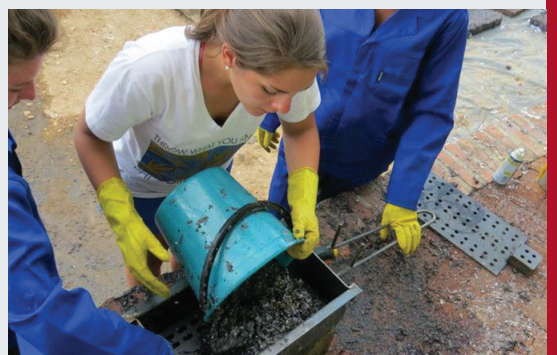
top **10**

most popular study
abroad programs
(The Princeton Review 2017–2018)



13,500+

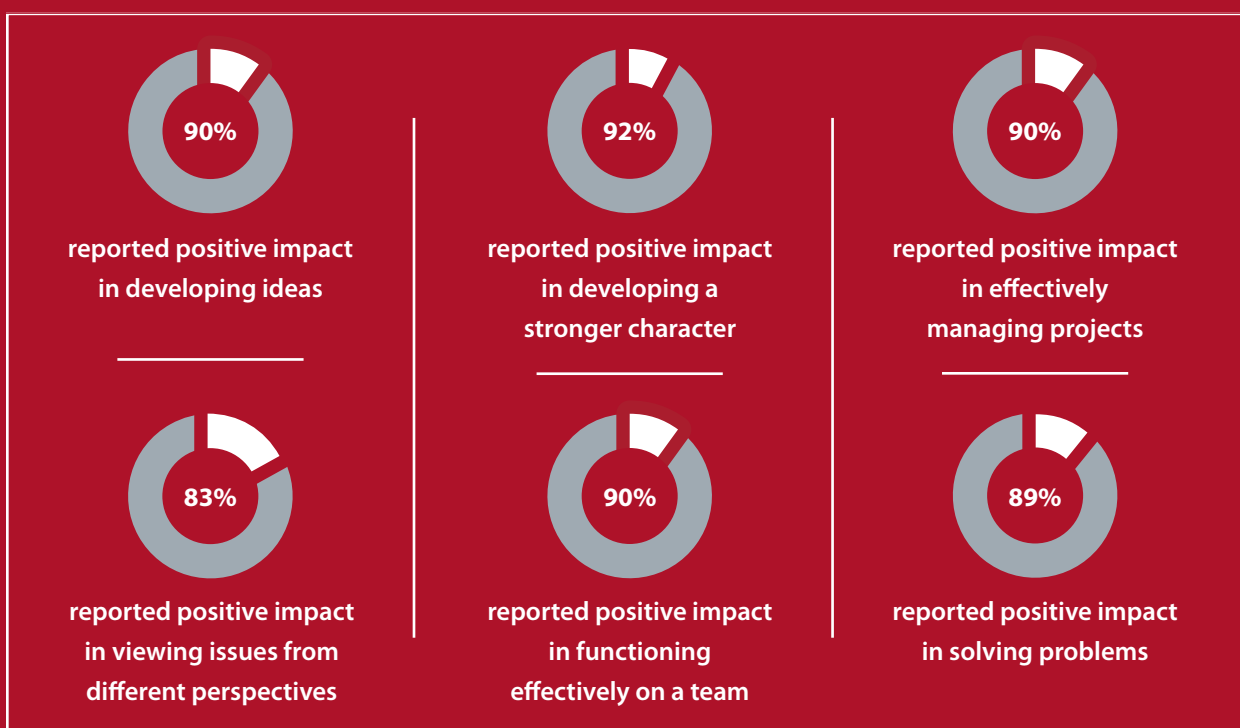
undergraduate students have had
off-campus project experience



WPI's distinctive project-based educational model has been praised by the most recognized and valued resources in the academic world, as well as by those who know the benefits of a WPI education firsthand—WPI students and alumni. In a survey conducted by the UMass Donahue Institute of more than 2,500 alumni across a span of 38 years, respondents confirmed that their off-campus project experiences impacted them long after their time at WPI—resulting in lifelong professional and personal benefits.

From their off-campus project experiences:

Long-term Benefits



“The biggest impact that project work had on me was the confidence level it gave me to go out and take challenges head-on and have the confidence that I have a good chance of succeeding.”

- John Kopchik '77

“The way it changed my view of the world translates to multiple, different areas of my life. I look at my community as a much smaller piece of a larger world than I used to. I see diversity in a different way.”

- Nicholas Pelletier '09

Global Projects Program Project Opportunities

The Global Projects Program gives students varied opportunities for rigorous and authentic project work that brings tangible results. Students can complete work as close as our hometown of Worcester or as far away as New Zealand or any of our more than 50 project centers around the world.

The following projects are graduation requirements and offer life-changing impact through the Global Projects Program.

HUMANITIES & ARTS

Within WPI's renowned technical and scientific curriculum is a humanities and arts requirement that offers WPI students an opportunity to explore art, theatre, music, and other forms of creative expression. Through this coursework, students explore the ways their technical expertise can enrich the human experience. By examining the less technical global themes of art and architecture, history, languages, literature, philosophy, and religion, students gain new perspectives and an appreciation for the big questions in those fields.



A Berber man from the Ait Baamrane region of southwest Morocco demonstrates how to crack argan nuts to WPI students.

^ **Project Overview:** Students traveled to the Rabat, Morocco Project Center for their humanities and arts requirement, studying Moroccan culture. Their work involved language use among Moroccan youth, street art, music and political speech, and writing a collection of short fiction set in Morocco. While in southwest Morocco, they took a hike in the mountains, exploring the top of Mt. Boutmezguida, where they met local Berbers and learned about their lives, including the collection and processing of argan nuts.

> wpi.edu/+HA

“The experience gave me a more complete view of the world and I feel wiser, more mature, and more curious as a result.”

– Reynaldo Duran, Rabat, Morocco Project Center

Life is projects.

– Michael Kentley '90

INTERACTIVE QUALIFYING PROJECT (IQP)

Through the IQP, interdisciplinary student teams immerse themselves in a location to tackle problems within a community that will have an impact on the way people live. By working with local sponsors and community members, students gain an invaluable understanding of the challenges and issues underlying the problems they look to solve. Because they build these relationships and develop an insight and appreciation for the nuances of their location, the projects can be fundamentally life-changing. Students grow personally and professionally, developing invaluable skills and new levels of independence while also gaining a new appreciation for challenges faced by communities around the world.



WPI student Charles Frick conducts field work (energy audit survey) with a local resident for his IQP at the Worcester, England Project Center.

^ **Project Overview:** Working with sustainability staff at the University of Worcester, Charles Frick and his IQP team established a baseline energy consumption profile of residents within the Arboretum in Worcester, England, and found that residents struggled with energy bills, costs of retrofits, and heating. The project findings led to recommendations to create an educational campaign to teach energy conservation behaviors and to facilitate smart meter implementation within the Arboretum.

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“I found that working with staff and professors in a different culture gave me a new perspective on everything that I had thought of for sustainability and really educated me in a way that I hadn’t thought previously possible.”

– Charles Frick, Worcester, England Project Center

MAJOR QUALIFYING PROJECT (MQP)

The MQP is a senior-year, professional-level design or research experience that offers career-launching, foundational work experience. Teams of students collaborate with sponsors (often corporations or external partners) to demonstrate all they have learned in a way that shows they understand how a problem can include scientific, social, and ethical dimensions. Through the MQP, students not only apply knowledge appropriate to their major, but gain practical experience in real-life scenarios that help them master the communication and problem-solving skills needed to succeed in professional environments. This last exercise in putting theory into practice before graduation is one that gives WPI students an authentic understanding of scenarios and issues they cannot find solely in a classroom.



WPI student Adrienne Weishaar assesses the quality of water at landings and onboard canal tugboats for the Panama Canal Authority (ACP). Photo courtesy ACP.

^ **Project Overview:** Adrienne Weishaar completed her MQP at the Panama City, Panama Project Center and was among the first cohort to participate in a 3-year \$298,000 grant from the National Science Foundation aimed at addressing the environmental effects of the \$5.25 billion Canal Expansion Project. In collaboration with a partner from ACP, Weishaar not only discovered that rust in the tanks was causing contamination, but also created a drinking water management plan to mitigate future water hazards.

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“To be part of one of the biggest engineering feats in the world, one that has such a large impact on the entire world, is really incredible.”

– Adrienne Weishaar, Panama City, Panama Project Center

Project Sponsors

WPI students move on into the world with the knowledge and the determination to use their wisdom to solve a problem. Our project sponsors are valuable partners in helping our students grow into the professionals they will become, but the organizations and corporations also benefit as they report remarkable work that brings tangible solutions to their problems.

WHAT IS A PROJECT SPONSOR?

A project sponsor is a partner from the private sector, government, or nonprofit organizations that collaborates with WPI faculty and students to tackle a real problem that the partner organization would like to solve. WPI faculty advise student teams who work together with the sponsor organization to design and conduct research that addresses the topic defined by the sponsor. At the end of the project, the student team delivers a presentation to the sponsoring organization, as well as a written report of their final recommendations for their project.

WHAT IS REQUIRED TO BE A SPONSOR?

Sponsoring organizations supply a project concept, a space for the student team to work, and a commitment to mentor and support the student team.

WHAT BENEFITS DO PROJECT SPONSORS RECEIVE?

Every organization has a problem that needs to be addressed, but they don't always have the hours or the funds to invest. WPI students bring creativity and fresh approaches to these challenges. Many sponsors report that the students invigorate the team with their energy and their novel approaches to long-existing bottlenecks. Teams will research and may even prototype solutions, all the while keeping your sponsor team fully informed and involved.

HOW CAN I BECOME A PROJECT SPONSOR AT WPI?

If you are interested in learning more about becoming a project sponsor working with WPI students, contact the Global Projects Program (GPP) at **508-831-5547** or **global@wpi.edu**.



“The impact of the students’ project certainly will affect us here in Acadia but will also go well beyond the boundaries of the park and throughout the country.”

Abe Miller-Rushing, Acadia National Park
WPI Project Sponsor – Bar Harbor, Maine Project Center
wpi.edu/+anp



“We hope to open the Albania adventure park in a year, which will be the result of all our work with the students of WPI.”

Blerina Ago, Albania Rafting Group
WPI Project Sponsor – Tirana, Albania Project Center
wpi.edu/+arg



“Going off-campus for my project work impacted my education by allowing me to gain more experience **working in an unstructured environment** where my group and I must set our own due dates and goals.”

< Hannah, Interactive Media and Game Development

“Through my IQP experience in Bar Harbor, I learned **to be flexible and to adapt** to different situations and people. Recognizing the importance of communication and teams in action was the most valuable part of my experience.”

Jessica, Chemical Engineering >



“The project-based curriculum, and especially my off-campus project work, definitely gave me **hands-on experience** and helped me learn to work in an interdisciplinary environment and develop my communication and interpersonal skills.”

< Shamsur, Mechanical Engineering

“Unlike traditional study abroad programs, this project allowed me to **work in the field with professionals** versus simply studying in a different locale or language.”

Christopher, Robotics Engineering and Computer Science >



“Through the Albania Project Center, I learned how to **work efficiently in a team of vastly different personalities and to manage my time**, to stay on task, produce high-quality work, and meet critical deadlines.”

< Sara, Biology/Biotechnology

“In computer science or software engineering, it’s imperative to **work in teams** so I appreciate the team aspect and collaboration WPI works into the curriculum and projects.”

Cassidy, Mathematical Science and Computer Science >



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WPI

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