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Message from Dean ad interim, Robert A. Foisie School of Business

Responsible management and decision making should be an innate characteristic of all we do. Whether is it education, research, or outreach, it’s not enough to set responsible goals — our practices must be responsible, too.

Within the Robert A. Foisie School of Business at Worcester Polytechnic Institute, both our goals and our efforts to achieve them are, indeed, socially responsible. But, in spite of the efforts detailed in this report, we still have work to do. As we move forward and add new socially responsible initiatives, we must maintain vigilance, even as we continue to improve our responsible management practices.

Industry, commerce, government, and communities are in continuous flux. Making sure our students and faculty maintain a strong sense of responsible management should not be an afterthought, but should be ingrained in all of our activities and outcomes.

That is why we have adopted the United Nations’ Global Compact Principles for Responsible Management Education. The six principles cover the major dimensions of the role of universities and schools of business. These process-oriented principles focus on purpose, values, methods, research, partnership, and dialogue. They also seek to encompass and engage internal stakeholders such as faculty, students, and staff, as well as external stakeholders, including communities, employers, alumni, and nonprofit groups.

Within the Foisie School, as this report demonstrates, we are active in many ways, ranging from environmental sustainability programs to projects that address social issues related to food security and healthcare. Faculty, staff, and students are encouraged to use their skills to go beyond consideration of typical profit generation and cost reduction. The issues we are facing need to be addressed; doing so will help to better society in general.

When compiling this report, which covers a wide variety of programs and activities, we found that our academic community is already embracing responsible management principles. Faculty, staff, and students are doing a great deal to be socially responsible. But we can—and will—do more.

This summary of responsible management activities we have pursued is just the beginning, as this is our first PRME report. We look forward to sharing our continued progress with you in years to come. Socially responsible management will always be an important goal of the Foisie School of Business.

Joseph Sarkis,
Dean ad interim, Foisie School of Business
United Nations Principles of Responsible Management Education

Purpose  We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy.

Values  We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact.

Method  We will create educational frameworks, materials, processes, and environments that enable effective learning experiences for responsible leadership.

Research  We will engage in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental, and economic value.

Partnership  We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibilities and to explore jointly effective approaches to meeting these challenges.

Dialogue  We will facilitate and support dialogue and debate among educators, students, business, government, consumers, media, civil society organizations, and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability.

About Worcester Polytechnic Institute

Worcester Polytechnic Institute was founded in 1865 to create and convey the latest science and engineering knowledge in ways that are most beneficial to society. WPI’s founding motto, “Theory and Practice,” continues to underlie our academic programs. WPI graduates emerge ready to take on critical challenges in science and technology, knowing how their work can impact society and improve the quality of life.

WPI’s academic departments offer more than 50 undergraduate and graduate degree programs in science, engineering, technology, management, the social sciences, and the humanities and arts, leading to the BA, BS, MS, ME, MBA, and PhD. Our world-class faculty is both renowned and accomplished. In the National Survey of Student Engagement, WPI ranked first for student-faculty interactions, a measure of the quality and quantity of time spent by faculty with undergraduate students. WPI’s research is internationally recognized for breakthroughs and innovations in biotechnology, fuel cells, nanotechnology, information security, and more.

Project activity is an integral part of the WPI educational experience. The Major Qualifying Project (MQP) reflects the student’s major field of study. The Interactive Qualifying Project (IQP) relates technology and science to society or human needs. Students can also make a difference worldwide through the Global Projects Program.

WPI is ranked #64 among all national doctoral universities by U.S. News & World Report; #1 in the nation by BusinessWeek for its part-time MBA program; and #9 by The Princeton Review for “best career prospects” for MBA graduates.
Sustainability at WPI

What is Sustainability?

The Association for the Advancement of Sustainability in Higher Education (AASHE) defines sustainability in an inclusive way, encompassing human and ecological health, social justice, secure livelihoods, and a better world for all generations. At WPI we apply this definition across all aspects of the university: teaching and learning, research, facilities operations, and community engagement.

WPI’s Vision for Sustainability

We at WPI will demonstrate our commitment to the preservation of the planet and all its life through the incorporation of the principles of sustainability throughout the institution. We will accomplish this goal by promoting a culture of sustainability that incorporates the beliefs and behaviors supported by our technical strengths and by our heritage of the application of both theory and practice, as embodied in our motto *Lehr und Kunst*, to the solution of important problems. WPI will develop a bold and comprehensive strategy to advance the three broad goals of sustainability: ecological stewardship, social justice, and economic security.

With the acceptance of our WPI Sustainability Plan in February 2014 by the WPI Board of Trustees, we are formally integrating sustainability more deeply throughout our institution, from academics and research to campus operations and community engagement.

Since our founding in 1865 as one of the United States’ first universities dedicated to science, technology, and engineering, concepts of sustainability have always been integral to our mission. WPI offers more than 50 undergraduate and graduate degree programs. Students and faculty work on interdisciplinary research that seeks solutions to important and socially relevant problems in a broad range of fields, from the life sciences and bioengineering to energy, materials, and our critical infrastructure. Students have the opportunity to make a difference in communities and organizations around the world through the university’s innovative Global Perspective Program. There are more than 40 WPI project centers throughout the Americas, Africa, the Asia-Pacific region, and Europe, where our students apply their study of technology to help solve social and economic problems.

Along with our progress, this report discusses challenges we are facing, such as how to reduce our waste streams and encourage more sustainable commuting practices. Throughout this report we include comments from faculty and other community members that reflect what sustainability truly means at WPI.

Academics

At WPI, learning has always been about combining theory and practice. In today’s complex world, sustainable solutions must incorporate both of these concepts. Sustainability has been an explicit part of our academic programs since the advent of the “WPI Plan” more than 40 years ago. We continue to add new courses and research opportunities that allow our graduates to integrate these principles into their work beyond WPI. This section highlights some of the work that our students have done during the 2013–14 academic year.

Solar Decathlon China

The Solatrium, a solar-powered home built by Team BEMANY, an international, multi-university team led by WPI, earned 1st place in the hot water and energy balance contest, 4th place in the communication contest, and 8th place overall in the 2013 Solar Decathlon China competition. For more information, visit wpi.edu/news/20134/solarresult.html.
Envisioning Sustainable Futures Competition

WPI’s 6th annual sustainability project competition was the largest to date, attracting 21 undergraduate and graduate project teams. The 12 judges came from the Regional Environmental Council, the Greater Worcester Land Trust, Worcester State University, GreenerU, the Institute for Energy and Sustainability, the Worcester City Council, and a number of WPI departments.

Major Qualifying Project (MQP) - Senior Year

The culminating experience for all WPI undergraduates is referred to as the Major Qualifying Project. Usually conducted in small teams, the students apply the knowledge and experience gained in their education to a real-world problem or research topic. Often these problems involve substantial aspects of sustainability. The following project was conducted in Environmental Engineering and is representative of the large number of projects across many majors that advance the principles of sustainability:

Environmental Site Assessment for the Sustainable Development of Treasure Valley Scout Reservation’s West Camp; student: Stasia DeVito; advisor: Suzanne LePage. DeVito conducted an Environmental Site Assessment of the Cub Scout Day Camp identifying rainfall collection and re-use opportunities and storm-water management initiatives that the Council could integrate into its West Camp. This work has allowed the Mohegan Council of Boy Scouts of America to select appropriate sites and methods for future development.

Interactive Qualifying Project (IQP) - Junior Year

While equivalent in significance to the Major Qualifying Project, this junior-year experience is generally not directly related to the student’s major area of study, but is intended to relate an aspect of technology to society. Hence, a large percentage of these projects directly address one or more of the three fundamental aspects of sustainability. The project described here is representative of the social justice component:

Creating an Adaptive Bicycle; students: Bror Axelsson, Jaclyn Decristoforo, Kyla Rodger, Aida Waller; advisors: Corey Dehner, Stephen McCauley. The goal of this project was to create an adaptive bicycle design for use by teenagers who have Down syndrome, autism spectrum disorder, or cerebral palsy. The team developed a prototype by making a standard adult bicycle with parts available at Earn-a-Bike’s shop at minimal cost.

2013 President’s IQP Awards

Sustainability topics frequently appear among the winners of this award, and academic year 2013–14 was no exception. The award was given to a group of students who created and compiled educational resources on preventing and minimizing lead exposure for elementary school students and teachers in Thailand:

Winner: Promoting a Lead-Free Community, An Educational Program for Schools in Thailand; students: Brianna Hayes, Taylor McNally, Trevor Rancourt, Tracy Sinkewicz; advisors: Seth Tuler, Stanley Selkow. For more information on the finalists and honorable mention: wpi.edu/about/awards/iqp.html.
Great Problems Seminar (GPS) - First Year

These innovative first-year experiences immediately engage our freshmen with the great opportunities and problems facing the global population, all of which involve some aspect of sustainability. Topics addressed in academic year 2013–14:

- Heal the World
- Food Sustainability
- The World’s Water
- Biosphere, Atmosphere, and Human Fears
- Power the World
- Recycle The World

2014 Strage Innovation Award

Innovation is the successful exploitation of new ideas in our society that may either be entirely new or the application of existing ideas to new uses. In view of the increasing importance of innovation in our lives, an innovation competition for WPI undergraduate students was established by Henry ’54 and Alberta Strage, with the objective of applying student knowledge to the development of viable new projects or ventures. The award is not limited to the topic of sustainability, but the 2014 recipient is squarely in the domain of sustainability.

Modular Solar Panel Assembly; student: Arman Uygur; advisor: Cagdas Onal (provisional patent filed)

2014 University Lecture

This year’s University Lecture presented the often overlooked question of setting priorities among all of the global problems that should be addressed. We welcomed Bjorn Lomborg, founding director of the Copenhagen Consensus Center. Lomborg was recognized by Time magazine as one of the 100 most influential people in the world. He prefaced his lecture, “Prioritizing Our Greatest Problems Versus Prioritizing Our Efforts to Find Solutions,” with the question, “If you had $75 billion to do good in the world, where would you spend that over the next four years?” Participants selected, in order of importance, improving the nutrition of preschoolers as their top priority, followed by increasing green energy research and development, and increasing geoengineering research and development.

Research and Scholarship

WPI is a national research university with a long tradition of collaborative work across disciplines. Much of the research pertains to sustainability and focuses on providing solutions to meaningful problems that can change the word in positive ways. A goal of WPI’s Plan for Sustainability is the development and implementation of a process to capture and report the breadth of research and scholarship regarding sustainability that is occurring at the university. Some examples of sustainability-themed research are briefly presented here and provided in detail below.

Undersea Kites

The National Science Foundation recently awarded mechanical engineering professor David Olinger $303,201 for his research on harvesting energy from ocean currents using undersea kites. Although kites for harvesting wind energy have become popular at research universities in recent years, Olinger’s design for undersea kites is a novel technology. His student research team, which began work in January 2014, hopes to build a working scale model of an undersea kite to be tested at Alden Research Laboratory by the end of 2016. The kite, constructed of metal or fiberglass and tethered to a floating platform on the bottom of the ocean, “flies” underwater in a figure-eight pattern, generating power from ocean currents using an on-board electric generator. In the US, the potential use for undersea kites spans the lengths of our east and west coasts, potentially benefitting 39 percent of the US population.
Resource Recovery
The Center for Resource Recovery and Recycling (CR³) is an NSF Industry/University Cooperative Research Center (I/UCRC). It serves as the premier cooperative research center focused on sustainable stewardship of the earth's resources. Led by WPI, the partnership includes Colorado School of Mines and KU Leuven in Belgium. Eighteen corporations including Alcoa and General Motors are currently members. The focus is on helping industry address the pivotal societal need of reducing resource consumption. CR³ advances technologies that recover, recycle, and reuse materials throughout the manufacturing process. These advancements will help reduce energy costs and increase profitability, while protecting our natural resources.

Battery Technology
Professor Yan Wang is investigating new electrodes and materials for energy storage, including lithium ion batteries, super-capacitors, flow batteries, battery safety and recycling, and fundamental electrochemistry. This research can lead to energy storage with high-energy density, high-power density, long life, low cost, and increased safety.

Liquid Fuels
Professor Michael Timko’s research interests include studying the environmental and engineering aspects of clean energy technologies, with a specific emphasis on liquid transportation fuels. Liquid transportation fuels are derived nearly exclusively from petroleum resources. These resources are finite, distributed unevenly around the world, and their combustion contributes to many different environmental problems. His work involves studying the fundamental chemical engineering science, including transport, phase behavior, and reactor design, to develop new technologies for converting underutilized energy resources into fuels and chemicals.

Campus Operations
In the fall of 2013, WPI opened its fourth LEED Certified building, Faraday Hall. This 89,000-square-foot LEED Silver residence hall, which houses 258 students, sits on a redeveloped brownfield site between the lower campus, known as Gateway Park, and the main campus. In addition to expanding WPI’s residential housing, the construction of Faraday Hall improved the environment and helped revitalize the downtown Worcester area.

• At least 99% of demolition and construction waste was diverted from landfills
• Rain sensors reduce potable water use for irrigation by at least 50%
• Steel used to construct Faraday Hall is at least 63% post-consumer recycled and at least 20% pre-consumer recycled content
• Occupancy sensors and daylight dimmer sensors are used to reduce lighting energy consumption
• Aluminum windows with a thermal barrier system reduce energy consumption
• Water faucets use 1.5 gal/min, rather than the typical 2 gal/min; toilets use 1.28 gal/flush, 20% less than the industry standard; shower heads flow at 1.5 gal/min, rather than the baseline 2.5 gal/min
• Heating and cooling systems provide a 56% heating energy savings and a 4% cooling energy savings compared to the ASHRAE baseline
Energy Management Projects

Our SynergE Worcester initiative at Gateway I and the Rubin Campus Center are on track to reduce total campus electricity usage by 11% and total campus greenhouse gas (GHG) emissions by 7%.

Gateway I retrofits:

- Fume hood and sash sensing upgrades: Each fume hood was retrofitted with both vertical and horizontal sash pane sensing to reduce air changes, while maintaining a safe environment
- Lab ventilation optimization: Adjusted fume hood minimum air flow, general exhaust and variable-air-velocity supply, based on ANSI/AIHI Z9.5 and NIH guidelines
- Building automation system optimization
- Two 75 kW combined heat and power co-generation units to satisfy portions of building electrical and hot water demand
- 19 LED lighting retrofits

Water Bottle Filling Stations

As of June 30, 2014, there were 26 water bottle filling stations around campus. The eight water bottle filling stations in the Sports and Recreation Center allowed our community to avoid the use of 800,000 disposable water bottles. WPI continues to add new water bottle fillings stations to better serve our community.

Goat’s Head and Campus Center Food Waste Recovery

In the fall of 2014, Chartwells expanded WPI’s food waste recycling program to include food trimming from the Goat’s Head Restaurant and the Rubin Campus Center Food Court. As a result, each day an additional 150 pounds of food waste was diverted from the trash and delivered to a local pig farm, lowering the daily total food waste to approximately 550 pounds.
Rubin Campus Center retrofits:

- Adjustments to building temperature and ventilation to meet building occupancy demands
- Upgraded rooftop controllers to provide better, more energy-efficient operation of the units
- Variable air volume upgrades to increase energy efficiency and comfort by better controlling temperature and ventilation
- New kitchen steam valves and actuators to help regulate the temperature and ventilation for the kitchen, and prevent overheating
- Daylight sensing to adjust lighting requirements based on ambient light
- LED lighting
- Occupancy sensors in conference rooms to adjust lighting and temperature based on room use

Energy efficiency improvements installed in the Rubin Campus Center in 2013 and 2014 will save an estimated 670,000 kWh annually, representing a 34% reduction in electricity consumption in the building. These improvements also reduce natural gas and steam energy use by 34,000 therms each year. This is the equivalent of taking approximately 135 cars off the road.

WPI has identified Goddard Hall, Higgins Labs, and Gateway Garage as candidates for similar retrofits to further increase campus energy efficiency.
Transportation

Recently a group of students conducted a comprehensive study on commuting habits of the WPI community for their IQP project, "Promoting Alternative Transportation." The work included a detailed analysis by home ZIP code of the locations from which students, faculty, and staff traveled. This study describes the WPI community’s commuting habits:

- 58% (mostly students) live within a 10-minute walking distance to campus
- 68% of community members live within Worcester, but greater than a 10-minute walking distance, and commute daily via personal vehicle
- 1,470 are full-time commuters and use personal vehicles

This IQP concluded that WPI students, faculty, and staff would use more sustainable transportation if it were made more readily available.

- 64% of all respondents indicated that free or inexpensive bicycle rentals would definitely or possibly change the way they travel off campus. Currently, off-campus trips are taken predominantly using personal vehicles
- 10% of students living off campus would carpool if this option were made easier

Dining Services

WPI's dining service provider, Chartwells, is committed to fostering and promoting sustainable and humane business practices for our community. Only cage-free shell eggs, grass-fed beef, hormone- and antibiotic-free meats, and sustainable seafood are purchased. Chartwells employees are trained to reduce food waste through the Trim Trax program, and biodegradable packaging is used wherever possible. Food waste from dining areas is transported away from campus for use as animal feed. For more information on Chartwells sustainable practices, visit dineoncampus.com/wpi/show.cfm?cmd=sustainability and chartwellshighereducation.com/Chartwells_360_CHE.cfm.
Robert A. Foisie School of Business

Mission
The Foisie School of Business at Worcester Polytechnic Institute is rooted in WPI's strengths in technology, engineering, and science, and is known for developing innovative and entrepreneurial leaders for a global technological world.

Focus:
- Creating and leading technology-based organizations
- Innovating by creating new processes, products, and services, based on technology
- Integrating technology into the workplace

Emphasis:
- Innovative and project-based education integrates the theory and the practice of management, and prepares students to assume positions of leadership in an increasingly global business environment;
- Basic scholarship, while also valuing the scholarship of application and the scholarship of instruction;
- Interaction with the business community focused primarily on technological innovation and both individual and organizational entrepreneurship.
- A WPI business education has never been more relevant than it is today, because the demand for innovative thinkers who can solve problems on a global scale has never been greater. The WPI Advantage can be appreciated most keenly in the men and women who earn WPI degrees. From undergraduate programs to The Innovator's MBA, the WPI business curriculum is grounded in technology, giving our students a distinct edge in the ever-changing business world. Here, innovation, entrepreneurship, globalization, and leadership are intertwined into virtually every course of every program. For those who wish to learn how to solve problems and how to find solutions from unexpected areas, the advantages and the subsequent awards are bountiful.

Foisie School of Business Rankings:
#1 Part-time MBA Program in the Northeast by BusinessWeek since 2007
#1 Undergraduate Business School for Entrepreneurship in 2013 by BusinessWeek
#1 Undergraduate Business School for Information Systems in 2013 by BusinessWeek
#1 Undergraduate Business School for Marketing in 2011 by BusinessWeek
#4 Undergraduate Business School for Operations Management in 2013 by BusinessWeek
#5 Best Online Graduate Business Program in the Northeast - USNews.com
#5 Greatest Opportunities for Women – The Princeton Review, 2011
#9 Best Online MBA Program – thebestschools.org, 2012
**Degree Programs**

The Foisie School of Business offers the following degree programs and concentrations.

**Undergraduate**
- BS in Industrial Engineering
- BS in Management
- BS in Management Engineering
- BS in Management information Systems

**Graduate**
- Master of Business Administration
- MS in Data Science
- MS in Information Technology
- MS in Management
- MS in Marketing and Technological Innovation
- MS in Operations Analytics and Management

**Concentration in Sustainability Management**

Students pursuing an MBA or MS in Management, or MS in Operations Analytics and Management may earn a concentration in Sustainability Management. Elective courses include: Introduction to Sustainability Management, Energy Management, Sustainable Supply Chain and Operations Management, and Sustainability Consulting Projects.

**Health Systems Innovation Certificate**

Health systems worldwide struggle to provide access to excellent care for everyone, at a reasonable cost, prompting calls for change. In response, innovations are occurring in payment models (financial domain), in the structure and processes that support delivery (process domain), and in technologies such as new medical devices, robots to support home care, more powerful and integrated information infrastructures, and mobile healthcare applications (technology domain).

The certificate includes core courses focused on the health industry. The framework of the certificate then allows students to build on this foundation through breadth electives, which can be focused toward a particular domain of innovation (e.g., the process domain, through Operations and Industrial Engineering courses) or across domains.

**Minor in Social Entrepreneurship**

Social Entrepreneurship is defined as the formation of a new venture that combines social goals and for-profit activity to address social needs through novel solutions. Social entrepreneurs are leaders in that to be effective, they have to identify social problems, work closely with key stakeholders in identifying solutions to those problems, offer a vision for change, communicate clearly and persuasively to others, negotiate for resources from both public and private concerns, involve people in the solutions to problems, and be creative, passionate, and persistent in how they work through various obstacles to progress.

The purpose of the Foisie School of Business minor in Social Entrepreneurship is to provide students with the theoretical underpinnings of leadership, entrepreneurship, and social innovation. This minor interests students who aspire to change the world — or some part of it.
Related Educational Programs

Environmental Engineering
Environmental Engineering (EVE) program offers students an exciting opportunity to focus their technical capabilities on evolving science that affects human quality of life all over the world—and can simultaneously help preserve and restore areas in which they work. Emerging issues challenge environmental engineers in public health, conservation and restoration of natural systems, water and wastewater treatment, pollution prevention, and more. Students in this program gain the professional skills to manage these complex issues and help their planet.

With topics for research ranging from power storage to water quality preservation, and opportunities to work in outdoor settings and communities as well as in laboratories, both graduate and undergraduate students can grow within this vital and burgeoning field. Following the WPI educational model of theory and practice, student projects provide unique, hands-on opportunities to explore the multifaceted considerations surrounding environmental engineering problems on local and global levels, and to improve living conditions in the subject areas. WPI offers a unique depth in this specialization, with educational options that supply the comprehensive understanding this swiftly transforming field demands.

Arts and Sciences

Environment and Sustainability Studies Program
The Environment and Sustainability Studies Program provides an outstanding, hands-on, liberal arts education in key aspects of human dimensions of environmental change. Using an innovative, interdisciplinary curriculum, students gain breadth and depth of knowledge across core disciplines, such as biology, chemistry, philosophy, history, and environmental law and policy. Working alongside faculty who are equally passionate about the environment, students gain practical experience, engaging in cutting-edge research in areas such as sustainability studies, environmental justice, environmental sciences, and environmental politics.

Community Impact: Local and Global

Student Activities

Plant Parenthood Program At the heart of WPI’s main campus, atop Salisbury Labs, sits the Biology & Biotechnology (BBT) greenhouse. In early 2014, BBT lab manager Abbie White initiated a program called Plant Parenthood, to involve more students in greenhouse activities. Participants in Plant Parenthood learned how to propagate plants by taking cuttings. Each student picked a plant, potted a few cuttings, and selected one plant to take home and one to leave for a future student.

Student Green Team
- Green Team conducted its 3rd Annual Waste Audit, during which it determined that the recycling rate for the four buildings audited averaged 29% out of a maximum of 42%. For more information, visit wpi.edu/Images/CMS/Sustainability/3rd_Annual_Waste_Audit_Report.pdf.
- During the 2014 E-Waste Drive, Green Team and the Department of Facilities collected and recycled 7,312 pounds of electronics.
- Green Team organized the annual Lighting Fair, where students and staff may purchase energy-efficient lighting at discounted prices.
- More Green, Less Guzzle: 2013, was a show featuring fuel-efficient cars.

WPI is a community serving several larger communities: The WPI campus, the greater Worcester area, the nation, and the world. Much of this engagement occurs through WPI’s
Eco-Reps
The WPI EcoRep program includes both students and staff dedicated to educating classmates and colleagues on how to be more sustainable on campus. This past year, their campaigns included a dorm energy challenge, a green room certification program, and a project to stop the use of portable space heaters.

The total number of hours student EcoReps are engaged in peer-to-peer sustainability outreach and education activities annually is 896.

WPI student EcoReps partnered with GreenerU and Residential Services to develop the Dorm Energy Challenge to raise awareness of energy consumption in WPI’s dormitories and challenged the residents to reduce their consumption. This project began with a plug-load audit and provided monthly energy consumption updates to residents.

Worcester and Nearby Community
National Grid and United Technologies Engineering Ambassadors
In 2013-2014, 33 WPI students working as Engineering Ambassadors (EA) reached out to 2,300 local students to share the excitement of STEM fields. At 53 events in the Worcester community and one event at MIT, EAs presented on a variety of topics including high-altitude wind turbines, smart devices, bridges, and the field of fire protection engineering. National Grid and United Technologies shared sponsorship of these Engineering Ambassadors. Last summer, National Grid also selected five WPI EAs (Caroline Atteya, Stella Banou, Sopheaktra Chhim, Rida Fayyaz, and Keaton Smith) to intern at the Worcester Sustainability Hub, a center that provides education about energy efficiency and emerging technologies.

Sustainability Awards and Recognition
• WPI is listed among the “Cool Schools” identified by the Sierra Club in 2014.
• Green Game Changer Awards were given to both Professor Rob Krueger, director of the Environmental & Sustainability Studies Program, and the WPI Student Green Team at the SynergE Worcester Showcase.
• The Sports & Recreation Center earned LEED Gold Certification in October 2013.

• EWB-USA WPI received an honorable mention at the Environmental Protection Agency’s 10th Annual P3 Awards Competition and National Sustainable Design Expo in April 2014.
• The Solatrium, a solar home built by Team BEMANY, an international, multi-university team led by WPI, was recognized in the 2013 Solar Decathlon China Competition by earning 1st place in the hot water and energy balance contest, 4th place in the communication contest, and 8th place overall.
Experiential Learning

WPI believes that in order to become the best engineers and scientists they can be, students should have a broad understanding of the cultural and social contexts of those fields, and thus be more effective and socially responsible practitioners and citizens. The WPI Plan engages students in open-ended inquiry, both in and out of the major field of study, across the four years. Students are challenged to engage in a series of increasingly complex learning experiences involving application and integration, teamwork and responsibility, persuasive communication, and understanding the social and cultural contexts of engineering and science. While the program's flexibility creates many options for students to construct unique paths to graduation, four activities form the heart of the WPI Plan.

Great Problems Seminar (GPS)

This two-course introduction to university-level research and project work focuses on themes of current global importance. All course work is tied to current events, societal problems, and human needs. GPS is all about important problems. The skills students develop are exactly those needed for students to be successful in their project work at WPI, and in their future career.

This program was one of three first year programs recently recognized by the National Academy of Engineering as a 'Real World Engineering Education Program.' A total of 95 programs were nominated, and only 29 received that designation.

Interactive Qualifying Project (IQP)

That’s the intent of the Interactive Qualifying Project (IQP), a nine-credit-hour interdisciplinary requirement involving applied research that connects science or technology with social issues and human needs.

The IQP is not organized as a course, nor is it related to the major. Instead, small teams of students work under the guidance of faculty members from all disciplines to conduct research, using social science methods, directed at a specific problem or need. Students deliver findings and recommendations through formal reports and oral presentations to project sponsors (often nonprofit, municipal, or government agencies) and faculty advisors.

Sustainability serves as a common theme for IQPs, many of which address problems related to energy, environment, sustainable development, education, cultural preservation, and technology policy. About half of all IQPs are completed off-campus through the Global Projects Program.

Major Qualifying Project (IQP)

Through the senior-year capstone project, students gain real-world design or research experience within their major field. As with every WPI project, students have the guidance and support of faculty advisors and mentors; their passion and ingenuity is essential to their success.

Graduate Qualifying Project (GQP)

Aspiring MBA candidates will find the graduate qualifying project (GQP) to be the ultimate challenge. The GQP requires the ability to apply the skills, methods, and knowledge gained through study while solving a significant problem for a real client organization.

Working in groups of four or five students, each team delivers a professional-quality report, an oral presentation, and an executive summary of the project. Expectations are high, as clients pay tens of thousands of dollars for the work and expect a substantial return on their investment.

The GQP can also deliver a great return for the students as well; many later receive job offers from the companies that sponsored their projects. It’s the applied learning that gets results for the client and the student.
Interactive Qualifying Projects

Service-oriented activities were designed into the IQPs by having most of the projects focus on or encourage community service at some level. The students learned from serving actual communities and reflecting on lessons learned to reinforce the new-found knowledge. In some cases, the project was designed around a specific community, with multiple organizations in that community as a focus of each project. IQP examples include:

1. **Title:** The Energy and Sustainability Performance Analysis of Bernard Weatherill House (2014), Energy and Resources (2014)
   **Authors:** Kyle Thomas Gerlach, Tyler Trettel Howard, Benjamin J List, Juan Hernan Parra
   **Abstract:** This report, prepared for Croydon Council’s Sustainable Development and Energy Team, evaluated the energy and sustainability performance of Bernard Weatherill House. The team analyzed the building’s design specifications, in-use energy consumption, Building Management System, and occupant satisfaction. These led to the creation of an Energy Management Software Provider Portfolio and visual tools that will increase energy use awareness and optimize energy management processes. Finally, a complete evaluation for fixing the building management system and recommendations to improve the overall performance of the building were prepared for the Council.
   **Center:** LOND / London Project Center
   **Division:** Energy and Resources

2. **Title:** Blue Sky Recycling Programme (2013)
   **Authors:** Steven Gerard Como, Brendan J McKeogh, Archit Santosh Parmanand, Kelsey Elizabeth Stergiou
   **Abstract:** Blue Sky Recycling provides livelihoods for 1,500 families throughout informal settlements in Cape Town, South Africa. BSR pays pickers for collectables, then sorts and resells them to distributors. Our project aimed to discover opportunities in process improvement and financial sustainability. Methods involved interviews, observations, and collective planning with liaisons. Outcomes included mechanical hoist plans, an application for data entry, market rebranding, community education, an updated website, and digitized financial spreadsheets. We collaboratively enhanced BSR’s business model to establish efficiency through quicker pickups, better working conditions, and increased publicity.
   **Center:** CAPETOWN / Cape Town, South Africa Project Program
   **Division:** Urban and Environmental Planning

3. **Title:** Development of an Energy Reduction Blueprint for the Worcester Green Low-Income Housing Coalition (2014)
   **Authors:** Elizabeth E Cruz, Everett C Wenzlaff, Hui Zheng
   **Abstract:** Low-income housing organizations in Worcester, Massachusetts contend with multiple challenges, as they endeavor to provide safe and comfortable homes for people in need and meet the energy demands of their facilities. The goal of our project was to work with Dismas House of Massachusetts and the Worcester Green Low-Income Housing Coalition (WGLIHC) to promote sustainability and reduce the amount of money spent on energy. We conducted a case study analysis of Dismas House in order to understand its energy reduction process, rationale, and results. Then, we created an energy reduction blueprint from our case study findings. Our blueprint includes recommendations for reducing energy usage and costs so that WGLIHC members retain more funds to improve their programs and change lives.
   **Center:** WORC / Worcester Community Project Center
   **Division:** Energy and Resources
4. Title: Developing a Sustainable Waste Tire Management System for Thailand (2013)  
Authors: Kailyn Sara Connor, Steven J Cortesa, Shakhizada Issagaliyeva, Adam J Meunier  
Abstract: Thailand's National Science and Technology Development Agency is seeking to develop a successful program to manage approximately 600,000 tons of waste tires generated annually in Thailand. This project investigated Thailand-specific issues and options for a viable long-term waste tire management strategy. We evaluated current practices, potential technologies, and successful systems from foreign nations to draw conclusions and make recommendations regarding which technologies are most applicable to Thailand. We made additional recommendations concerning which aspects of a waste tire management system needed to be newly implemented or continued to be used and improved.  
Center: BANGKOK / Bangkok Projects Program  
Division: Technology and Environment

5. Title: Lifestyle Choices Determine Australia's Future -- Creating an Activity to Raise Awareness about the Importance of Sustainability (The Australia 2050 Trail) (2014)  
Authors: Stefano Berti, Danielle T Davis, Daniel Richard Zaleski  
Abstract: The Centre for Education and Research in Environmental Strategies (CERES) raises awareness about sustainability by educating visitors about how their actions have implications for the future. To assist CERES, we evaluated one of their visitor activities about sustainability, the Australia 2030 Trail, designed to promote awareness about the effects of current lifestyle choices. We found that the information, infrastructure and education methods needed to be updated in order to better educate visitors. We designed a new Australia 2050 Trail using information from a literature review, interviews, focus groups and surveys to understand how to improve the 2030 Trail's content and design. Further recommendations are included to evaluate and improve our proposed 2050 Trail.  
Center: AUSTR / Australia  
Division: Education in a Technological Society

Authors: Colin Mckinley Burns, Joseph H Collins, Paul Wei Johnston, Rebecca Marie Nichols  
Abstract: The Mirboo North Community Energy Hub (MNCEH) is a community-driven initiative designed to promote sustainability solutions. Its founding business case was prepared by Primaform, a partner in the Snowy River Innovation (SRI) group. The goal of this project was to increase community engagement in the MNCEH, particularly in the dairy farming and agroforestry sectors. Based on interviews and surveys, we identified successful community engagement strategies to recommend to the MNCEH. We also found that Mirboo North and district lacked a trusted source of energy information. We created a prototype website for the MNCEH to serve as an information source and community engagement tool.  
Center: AUSTR / Australia  
Division: Energy and Resources

7. Title: Short-term advancements and long-term visions for sustainability at the Radisson-Slavyananskaya Hotel (2014)  
Authors: Jonas L Ciemny, Elizabeth Martino, Keaton R Smith  
Abstract: The global hotel industry has become increasingly aware of its environmental impact. This report examines the practices of the Radisson-Slavyananskaya Hotel in Moscow, Russia with respect to environmental sustainability. Energy audit data, guest input, discussions with hotel management, renovation challenges, and financial calculations led us to three specific short-term recommendations and multiple long-term suggestions aimed at reducing the energy use of the hotel. The technical and financial
feasibility of potential upgrades was gauged in order to provide the most practical solutions for the hotel. We focused on the central AC system, window films, and room occupancy sensors, each of which result in significant water, electricity, and steam savings for the Radisson-Slavianskaya Hotel.

Center: RUSSIA / Russia
Division: Energy and Resources

8. Title: Water, Sanitation, and Hygiene Upgrading Programme in Informal Settlements (2013)
Authors: Mackenzie Leigh Alameda, Morgan Emily Boyd, Joseph Michael Brown, Ivette Carino

Abstract: Our 2013 WaSH-UP team's broad goal was to assess the Mandela Park WaSH-UP facility that emerged from the CTPC’s 2012 WaSH-UP team, and to use that knowledge to further improve water and sanitation provisions in the area. First, we assessed the Mandela Park WaSH-UP facility. We then identified a location in Langrug that would be best served by a new facility. At the community’s request and with a co-researcher team, we designed and planned a facility in Zwelitsha, an area of about 600 people without electricity, toilets, or a sewer system. Our methodology and plans were largely centered on sustainability-related WaSH-UP principles that emerged from our assessment and that were deemed essential for successful facility replication.

Center: CAPETOWN / Cape Town, South Africa Project Program
Division: Urban and Environmental Planning

Authors: Michael Haviland Conte, Danielle Marie Karcher, Sarah Anne Mavilia, John Robert McGonagle, Kelly Anne Winthrop

Abstract: In Puerto Rico, there is a lack of emphasis placed on the importance of environmental sustainability, particularly at schools. Our team's goal for the project was to research current conditions at the Sabana Llana Junior High School in San Juan, Puerto Rico and recommend a green infrastructure design. After we collected data about the school’s current state, we investigated ways to improve the school buildings and surrounding outdoor area through means such as water catchment systems, solar panels, green roofs, cool roofs, high-efficiency plumbing and lighting, tree removal and planting, recycling systems, and composting. Through interviews, case studies, and cost-benefit analyses, we made recommendations to help the school become more environmentally sustainable.

Center: PR / Puerto Rico Project Center
Division: Urban and Environmental Planning
Special Webinar Series

Career Opportunities in Sustainability:

When: February 5, 2015
Speaker: Katie Kross, is the author of Profession and Passion: A Resource Guide for MBA Careers in Sustainability and managing director of the Center for Energy, Development, and Global Environment (EDGE) at Duke University’s Fuqua School of Business. Will O’Brien, a consultant for the Center for Sustainability in Business at the Robert A. Foisie School of Business also participated in the webinar.

Abstract: A growing number of colleges and universities are offering courses and degree programs in sustainability. Students are enrolling in more “green” courses and working on socially responsible projects in record numbers. Many who are already in the workforce are considering a career transition to a greener job. The question remains, though: Are there sufficient jobs to warrant this level of interest? Speakers Katie Kross and Will O’Brien discussed what career opportunities are available, and how individuals can take advantage of them.

Academic and Project Centers

One of the many unique elements of the Foisie School of Business is its network of vibrant and active epicenters of academic activity and dialog. These centers of engagement enable students, faculty, alums, staff, and friends to come together in pursuit of learning and enrichment in a variety of fields of intellectual curiosity.

Center for Sustainability in Business

The Center for Sustainability in Business is comprised of three components—research, education, and outreach. The Center connects entities across WPI and the business community. Its mission is to aid companies, communities, and government organizations, aligning their organizational activities for a more sustainable environment, helping to articulate the added business value. The planning and management of the relationship between the enterprise and the environment is a strategic need for sustainable enterprises and goes beyond a single entity to include communities, supply chains, shareholders, investors, and current and future leaders.

Working collaboratively in partnerships, the Center facilitates meeting this need through research, education, and consulting. To achieve its mission, the Center engages numerous stakeholders: students, alumni, and faculty members within the Foisie School of Business, as well as with STEM and the art disciplines; and with organizations having a desire to initiate or implement change in business practices for a sustainable future.

China Project Center

The China Project Center in Beijing provides MQP opportunities for WPI students to acquire and practice their global competency. In particular, the Center offers real-world project experiences for students to simultaneously practice their technical skills, apply their innovative ideas, develop their interpersonal abilities, and cultivate their entrepreneurial spirit in a global, innovative, and culturally diverse world. WPI students work with Chinese students selected from partner schools in mixed teams. Projects involving real-world problems are sponsored by multi-national companies with operations in China in the areas of materials science, mechanical design, environmental management, supply chain, operations, logistics analysis, process improvement, and lean principle implementation.

Collaborative for Entrepreneurship & Innovation

The Collaborative for Entrepreneurship & Innovation (CEI) helps those in the WPI community interested in creating new products, companies, services, and technologies. Whether creating a technology-based business or social venture, or seeking an entrepreneurial mindset, the CEI fosters moving forward through experiential programs. The CEI hosts an annual “Reduce, Reuse, Recycle” video competition with cash prizes in three categories: educational, humorous, and artistic talents.
**Denmark Project Center**

The Denmark Project Center conducts IQPs focused primarily on issues pertaining to the environment, including transportation, sustainability, and recycling, as well as aid to people with handicaps. Not-for-profit organizations, including The Danish Bicycle Federation, Consumer Council, Danish Association for the Blind, and Miljoepunkt Noerrebro, sponsor several projects.

**Energy Sustainability Project Center**

WPI’s Energy Sustainability Project Center (ESPC), directed by Professor John Orr, provides an opportunity to match students with faculty and project topics, and to coordinate corporate sponsorship in the field of sustainable energy. More than 60 previously completed projects on the topic of energy have built a strong foundation for this new project center.

**Healthcare Delivery Institute**

The Healthcare Delivery Institute is a university-wide, multi-disciplinary initiative created to tackle, investigate, and offer solutions to the healthcare industry. Affiliated with the University of Massachusetts Medical School, it’s a living laboratory where WPI and its partners can collaborate and solve the global challenges of healthcare delivery.

**New Zealand Project Center**

The New Zealand Project Center was founded in 2012 and conducts IQPs that focus on topics related to conservation and indigenous wildlife, Maori culture and development, climate change, innovation in the Greater Wellington region, museums, and healthcare in New Zealand. Past and present sponsors include the New Zealand Department of Conservation, GNS, Te Papa Museum, the Department of Maori Studies at Victoria University, Zealandia, the Diabetes Network, Grow Wellington, and Callaghan Innovation.

**Pioneer Valley Economic Development Project Center**

This Pioneer Valley Economic Development Project Center is devoted to business solutions for economic development in the four western counties of Massachusetts. In collaboration with national and regional sponsors like the MassMutual Financial Group, Develop Springfield, Common Capital, the Business Growth Center, and Valley Venture Mentors, the center organizes graduate and undergraduate student projects that address critical parts of the Commonwealth’s formal statewide economic development strategy. Center initiatives support entrepreneurship and innovation, local agriculture and healthy foods, environmental projects, and other economic development activities.

**Sustaining WPI On-Campus Project Center**

Inspired by student interest in sustainability, proposed by the Interdisciplinary and Global Studies Division (IGSD) Dean Richard Vaz, and directed by Professor Suzanne LePage, the Sustaining WPI On-Campus Project Center was launched in 2013. This new project center provides students and advisors with the opportunity to invest in their own campus while working on projects related to the three tenants of sustainability: environmental stewardship, economic stability, and social justice.
Forums and Guest Speakers

WPI sponsored a number of forums for addressing critical problems and important topics, such as sustainable IT and sustainable tourism in China. Forums and speakers included:

Sustainable IT - Oxymoron or Hope for the Future:
When: December 17, 2013
Speaker: Carol Baroudi is the lead author of Green IT For Dummies, which gives organizations basic principles and guidance in moving toward sustainable IT. Her work in Global Sustainability and Compliance for Arrow Electronics, www.arrow.com, includes leading Arrow’s Green Team as well as working with Arrow’s customers in support of their sustainability initiatives, including education, evangelizing and reporting on sustainability choices, metrics and goals. Carol co-leads the Boston Area Sustainability Group http://www.basg.org.

Abstract: In a world increasingly resource constrained, IT is an ever-growing consumer of energy and materials. Simultaneously IT promises optimization and efficiencies that can help address our challenges. This talk reveals the underbelly of IT from a sustainability perspective and looks at IT innovation that might help us find our way out.

Sustainable Tourism in China: The Schoolhouse at the Great Wall
When: January 24, 2015
Speaker: Julie Upton-Wang
Event: China Hub Seminar Series

Alliances and Strategic Partnerships

WPI works in collaboration with other institutions of higher learning and non-profit organizations in support of initiatives focused on entrepreneurship, innovation, sustainability and corporate social responsibility.

- Center for Sustainability in Business relationship with Cardiff Business School
- Center for Sustainability in Business relationship with Rutgers University
- WPI collaboration with Clark University in support of the Institute for Energy and Sustainability. The Institute for Energy & Sustainability (IES) is central New England’s green business zone. Their mission is to attract clean energy technology and renewable energy companies to the region. They are building on the region’s assets and reputation as an incubator of innovation. Their priority is to create an environment for those seeking economic opportunity and advantage in this sector and to support the growth of jobs establishing a zone of world class clean technology companies.
Research and Faculty Publications

Foisy School of Business faculty are actively engaged in conducting, presenting, and publishing research that advances our knowledge of important social, economic, and environmental issues. In the past two years, our faculty presented or published numerous works on these issues. Topics included corporate social responsibility, social entrepreneurship, sustainable supply chain management, sustainability in education, social concerns modeling and health care management. Selected research is listed below.

Michael Elmes

Huong Higgins

Sharon Johnson

Chick Kasouf

Renata Konrad

Eleanor Loiacono

Karla Mendoza-Abarca
Karla Mendoza-Abarca (continued)

Adrienne Phillips
• Chung, T-L., Hall-Phillips, A., Park, J., & Anaza, N. A. Who are the supporters behind the screen? Segmenting social venture consumers through social media usage. Journal of Retailing and Consumer Services, in press.

Joseph Sarkis
Joseph Sarkis (continued)


Books:

Book Chapters:
(continued next page)
Joseph Sarkis (continued)


Diane Strong


Steve Taylor


Bengisu Tulu


Andrew Trapp


Justin Wang

Justin Wang (continued)


Vance Wilson


Joe Zhu


Faculty Conference Presentations

Soussan Djamasi

- HCI in Health and Wellness Roles and Goals, HCI in Health and Wellness Research Workshop, 2014
- Young Adult Health Promotion: Supporting Research Design with Eye-Tracking Methodologies, HCI International, 2013
- SERPs and Ads on Mobile Devices: An Eye Tracking Study for Generation Y, Hawaii International Conference on System Sciences (HICCS), 2013
- App-Like Mobile Optimization and User Experience, Pre-ICIS Special Interest Group on Human Computer Interaction Workshop, 2013

Michael Elmes

- Elmes, M., Hersh, B., and Derry, R. 2014. Discourse, food and hunger: A case study of innovation and change at the Worcester County Food Bank, in Cracking the hegemony of the industrial food system: Exploring opportunities for change (M. Elmes, Chair), Symposium in Critical Management Studies and Social Issues in Management), Academy of Management Annual Meeting, Philadelphia, PA, August.
- Holding Paradox as a Mechanism of Social Innovation in Networked Organizations: Changing the Food Security System in Central Massachusetts, Annual Social Entrepreneurship Conference, 2014
- Processing food claims: The stabilizing roles of measurement and strategic ambiguity, International Symposium on Process Organizational Studies, 2014
- Elmes, M. 2013. Cooperative organizations, leadership, and collective innovation: Narratives and counter narratives of authority and mutual/self-criticism. European Group on Organizational Studies (EGOS), Montreal, Canada, July.
Sharon Johnson

- Linking Lean Six Sigma Wastes and Environmental Sustainability in Health Care, Decision Sciences Institute Annual Meeting, 2014
- Creating Value in Healthcare through Lean and Health Information Technology: Implications for Lean Teaching, Engineering Lean Six Sigma Conference, 2014
- Capstone Projects and Other Immersion Experiences in Healthcare, Industrial and Systems Engineering Research Conference (ISERC), 2014
- Exploring Synergies between Lean Implementation and Health Information Technology, Industrial and Systems Engineering Research Conference (ISERC), 2014
- Patient Portals and Health Management, American Medical Informatics Association 2013 Annual Symposium, 2013
- Addressing Health and Health Systems in Undergraduate Programs, INFORMS Healthcare, 2013
- Identifying Complex Patients and Care Coordination Needs, INFORMS Healthcare, 2013
- VA Linen Distribution Optimization, INFORMS Healthcare, 2013
- Linking Lean Thinking and Health IT to Improve Healthcare Delivery, Industrial and Systems Engineering Research Conference (ISERC), 2013
- Preparing Industrial Engineering Students for Careers in Healthcare, Industrial and Systems Engineering Research Conference (ISERC), 2013
- Patient-Centered Care Requires a Patient-Oriented Workflow Model, NE VERC Webinar, 2013

Renata Konrad

- Automatic Detection of Episodes of Care in an Insurance Claims Repository, INFORMS Annual Meeting, 2014
- Opportunities for OR/MS in Healthcare Payment Reform, INFORMS Annual Meeting, 2014
- The Role of Preventative Care for Congestive Heart Failure Patients in a Rural Health System, INFORMS Healthcare, 2013
- Improving Episodic Care Frequency for CHF Patients, Society for Health Systems Conference, 2013
- Modeling the impact of changing patient flow processes in an emergency department: insights from a computer simulation study, Society for Health Systems Conference, 2013

Eleanor Loiacono

- Website Accessibility, WPI Undergraduate Webware Course, 2014

Karla Mendoza-Abarca

- Assessing Social Value Creation from the Consumer Perspective, AMA Summer Educators’ Conference, 2014
- Social venture simplicity versus complexity: the implications of exploiting multiple opportunities by newly founded charity organizations, Babson College Entrepreneurship Research Conference, 2014
- Social venture beneficiaries: A typology and research implications, Global Research Symposium on Marketing and Entrepreneurship, 2014
- Holding paradox as a mechanism of social innovation in networked organizations: Changing the food security system in Central Massachusetts, The Annual Social Entrepreneurship Conference, 2014
- Picking up the Slack: Social Venture Creation under Market Failure Conditions , Babson College Entrepreneurship Research Conference, 2013
Karla Mendoza-Abarca (continued)

- Born-diversified social ventures: An analysis of newly founded Canadian charities, NYU-Stern Conference on Social Entrepreneurship, 2013
- Business models for social ventures: Creating value through pricing, United States Association for Small Business and Entrepreneurship, 2013

Fabienne Miller

- Investigation of the Impact of the Massachusetts Health Care Reform on Hospital Costs and Quality of Care, Canada Academic Accounting Association, 2013

Adrienne Phillips

- Who are the supporters behind the screen? Segmenting social enterprise supporters through social media site participation, American Collegiate Retailing Association, 2014
- Assessing social value creation from the consumer perspective, American Marketing Association Summer Educators’ Conference, 2014
- How fresh is my food?: Findings from a qualitative inquiry, Marketing and Public Policy Conference, 2014
- Antecedents of loyalty toward social ventures: Social cause involvement, identification, and commitment, United States Association for Small Business and Entrepreneurship, 2014

Purvi Shah

- How Fresh is My Food?: Findings from a Qualitative Inquiry, Marketing and Public Policy Conference, 2014

Diane Strong

- Smartphone-Based Wound Assessment System for Diabetic Patients, Diabetes Technical Meeting, 2013
- Linking Lean Thinking and Health IT to Improve Healthcare Delivery, Industrial and Systems Engineering Research Conference (ISERC), 2013
- Wound Image Analysis System for Diabetics, SPIE Medical Imaging Conference, 2013

Steve Taylor

- Thingyness, representation, and the marriage of MIT and RISD: Analytic and artful approaches to organization design, European Group on Organizational Studies, 2014

Andrew Trapp

- Assessing and Maintaining Quality of Care for Veterans with Mental Health Disorders, INFORMS Healthcare, 2013
- The Role of Preventative Care for Congestive Heart Failure Patients in a Rural Health System, INFORMS Healthcare, 2013
- Finding Multiple Optimal Solutions to Binary Integer Programs, University of Tennessee, 2013

Bengisu Tulu

- Detection of Diabetic Foot Ulcers Using SVM Based Classification, 2014 UMass Center for Clinical and Translational Science Research Retreat, 2014

Justin Wang

- Investigation of the Impact of the Massachusetts Health Care Reform on Hospital Costs and Quality of Care, Canada Academic Accounting Association, 2013
Justin Wang (continued)

Vance Wilson
- HCI in Health and Wellness Roles and Goals, HCI in Health and Wellness Research Workshop, 2014
- Young Adult Health Promotion: Supporting Research Design with Eye-Tracking Methodologies, HCI International, 2013

Amy Zeng
- An Exploratory Study for Understanding e-Waste Recycling, the 12th International DSI and the 18th Asia Pacific DSI conference, 2013

Proceedings

Soussan Djamasi
- The Relationship of Demographics to Consumers’ Use of an Extended Range of E-Health Services, Hawaii International Conference on System Sciences, 2014
- Young Adult Health Promotion: Supporting Research Design with Eye-Tracking Methodologies, HCI International, 2013

Michael Elmes

Sharon Johnson
- Dynamics of EHR Implementations, 32nd International Conference of the System Dynamics Society, 2014
- Large system transformation within healthcare organizations utilizing lean deployment strategies, Industrial and Systems Engineering Research Conference (ISERC), 2014
- Preparing for the Worst: a Key for Better Anticoagulation Management, Industrial and Systems Engineering Research Conference (ISERC), 2013

Eleanor Loiacono

Karla Mendoza-Abarca
- Symbiosis or Competition? The Inter-Population Dynamics between Social and Commercial Ventures, Babson College Entrepreneurship Research Conference, 2013
- Business models for social ventures: Creating value through pricing, United States Association for Small Business and Entrepreneurship, 2013
Adrienne Phillips

- Who are the supporters behind the screen? Segmenting social enterprise supporters through social media site participation. American Collegiate Retailing Association, 2014
- Assessing social value creation from the consumer perspective, American Marketing Association Summer Educators’ Conference, 2014
- Social venture beneficiaries: A typology and research implications, Global Research Symposium on Marketing and Entrepreneurship, 2014
- Antecedents of loyalty toward social ventures: Social cause involvement, identification, and commitment, United States Association for Small Business and Entrepreneurship, 2014

Diane Strong

- Patient Portals and Health Management, American Medical Informatics Association 2013 Annual Symposium, 2013
- Self-care Management: Patient-Centered Diabetic Wound Care Using Smart Phones, American Medical Informatics Association 2013 Annual Symposium, 2013
- The smartphone as a Medical Device: Assessing Enablers, Benefits and Challenges, Workshop on Design Challenges in Mobile Medical Device Systems (DC-MMDS), 2013

Bengisu Tulu

- RecFit: a context-aware system for recommending physical activities, 1st Workshop on Mobile Medical Applications, 2014
- The Smartphone as a Medical Device: Assessing Enablers, Benefits and Challenges, 10th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), 2013
- Patient Portals and Health Management, American Medical Informatics Association 2013 Annual Symposium, 2013
- Sugar: A Mobile Phone App for Diabetes and Diabetic Wound Management, American Medical Informatics Association 2013 Annual Symposium, 2013
- Project Initiation for Telemedicine Services Under the Lens of Alternative Business Models, Hawaii International Conference on System Sciences, 2013
- Wound image analysis system for diabetics, SPIE Medical Imaging Conference, 2013

Vance Wilson

- The relationship of demographics to consumers’ use of an extended range of e-health services. Hawaii International Conference on System Sciences, 2014
- Young Adult Health Promotion: Supporting Research Design with Eye-Tracking Methodologies, In Yamamoto (Ed.) HCI International, HIMI/HCI (LNCS 8017), Berlin Heidelberg: Springer-Verlag, 235-244. 2013

Amy Zeng

- The Status-quo of New-Energy Vehicles: A Multi-Stakeholders’ Perspective, Institute of Industrial Engineers Research Conference (IERC), 2014
- An Exploratory Study for Understanding e-Waste Recycling, the 12th International DSI and the 18th Asia Pacific DSI conference, 2013
Faculty Research Grants

Sharon Johnson
• A Logic-Based Tool for Improving Access, GOV-Veterans Affairs, 2014
• IPA: VA-CASE - Measuring the Impact of VERC Lean Programs, GOV-Veterans Affairs, 2014
• VERC Training Evaluation and Assessment Instrument, GOV-Veterans Affairs, 2014
• New England Health Care Engineering Partnership (NEHCEP), GOV-Veterans Affairs, 2013

Eleanor Loiacono
• Developing a Women's Information Systems Network Workshop, Elsevier Foundation, 2014
• Creating Online Training Modules for Peer Mentors with Disabilities, WPI Educational Development Grant Program, 2014

Diane Strong
• SHB: Medium: Self-care Management: Patient-Centered Diabetic Wound Care using Smart Phones, GOV-National Science Foundation (NSF), 2014
• AOC: Health Information Technology as an Agent of Change for Improving Health Care Delivery Process, GOV-National Science Foundation (NSF), 2013

Bengisu Tulu
• Feasibility trial of a problem-solving weight loss mobile application, GOV-National Institute of Diabetes Digestive & Kidney Diseases (NIDDK), 2014
• RELAX: A mobile application suite targeting obesity and stress, GOV-National Institute of Diabetes Digestive & Kidney Diseases (NIDDK), 2014
• SHB: Medium: Self-care Management: Patient-Centered Diabetic Wound Care using Smart Phones, GOV-National Science Foundation (NSF), 2014
• A Logic-Based Tool for Improving Access, GOV-Veterans Affairs, 2014
• New England Health Care Engineering, GOV-Veterans Affairs, 2014
• Feasibility trial of a problem-solving weight loss mobile application, GOV-National Institute of Diabetes Digestive & Kidney Diseases (NIDDK), 2013
• SHB: Medium: Self-care Management: Patient-Centered Diabetic Wound Care Using Smart Phones, GOV-National Science Foundation (NSF), 2013
• New England Health Care Engineering, GOV-Veterans Affairs, 2013

Justin Wang
• RELAX: A mobile application suite targeting obesity and stress, GOV-National Institutes of Health(NIH), 2014

Faculty and Staff Community Involvement

Kevin Sweeney
• Teaching "Globalization, Social Responsibility & Organizational Strategy."
• President of the Springfield Technical Community College Foundation Board of Directors. The Foundation provides financial resources for educational access to diverse communities impacted by urban and rural poverty. The Foundation also funds workforce initiatives that develop entry-level manufacturing, financial customer service, and other job training for unemployed and underemployed members of the community. The Foundation places strong emphasis on partnering with the public and private sector to foster social entrepreneurship that addresses issues related to urban and rural poverty, education, and employment.
• Consulting Practice, Sweeney Strategic Consulting has a strong focus on social entrepreneurship and community involvement, including contributing advisory support to organizations like Develop Springfield, Common Capital, and the Business Growth Center at the Springfield Technology Park. Contributions are in areas related to revitalization and workforce development in communities impacted by economic and social challenges. Sweeney Strategic Consulting also produces a daily eNewsletter, Strategic Impact Daily, which covers social innovation and other topics.
• Member of the Board of Directors of Common Capital in Holyoke, Mass. Common Capital is a non-profit, community development fund that focuses on providing capital to small businesses in Western and Central Massachusetts. It emphasizes work with social impact, including small urban and family-owned businesses with limited access to capital, food access initiatives, green energy activities, and local agriculture (including local community-oriented farms).
Future Initiatives in Support of PRME

Below are future initiatives being considered by the Foisie School of Business and WPI:

Curriculum
- Continue the integration of ethics, global, social responsibility and sustainability into Foisie School of Business (FSB) courses, as appropriate.
- Promote and implement the concentration in sustainability management, including electives in MBA and MS programs.
- Develop an Introduction to Sustainability Management course for undergraduate students.

Research
- Inspire and support Foisie School of Business faculty to continue to expand research in areas related to ethics, global, social responsibility and sustainability.
- Establish a collection process for faculty research, activities to promote awareness of publications, conference presentations, etc. Publish working papers on the Center for Sustainability in Business website.
- Recruit and attract faculty with research coverage in responsibility management areas that also fit within strategic goals of the Foisie School of Business.
- Collaborate across the university with faculty in other disciplines to address transdisciplinary responsible management topics.

Student Activities
- Provide faculty support and advising for student teams working on projects related to social responsibility and sustainability in their IQPs, MQPs and GQPs.
- Investigate student interest in establishing a Net Impact and or Enactus chapter at WPI.
- Support student initiatives relating to responsible management topics.

Community Impact: Local and Global
- Leverage WPI’s strengths in experiential learning and community-based projects to expand impact in enabling organizations to become more environmentally sustainable and socially responsible.
- Collaborate and further support broader sustainability goals of WPI.

Respectfully submitted by the PRME Committee

Michael B. Elmes, Chair
Gina M. Betti
Brittany Lynn Colcord
Jessica Grimes
Nicolas Enriquez Riart Gomez
Will O’Brien
Kevin M. Sweeney