sustainable communities

2015/16 Annual Report
connections and collaborations
Penn State’s Sustainability Institute

Penn State is a public research university that educates students from Pennsylvania, the nation and the world, and improves the well-being and health of individuals and communities through integrated programs of teaching, research and service. The University has embraced sustainability as a foundational principle that enriches all of its pursuits and missions, and is committed to advancing the understanding and resolution of sustainability challenges on campus, in our communities and around the world. Because of this need, the Sustainability Institute was created.

Penn State’s Sustainability Institute’s mission is to lead and support Penn State in the pursuit of sustainability across all functions: teaching and learning, research and discovery, outreach and engagement, administration and operations. Sustainability is defined as the simultaneous pursuit of human health and happiness, environmental quality and economic well-being for current and future generations.

This mission can be achieved by developing lifetime competencies for sustainability in our faculty, staff and students; enabling transformation and alignment of systems, policies and opportunities around sustainability; inspiring others through the communication of our successes, failures and learning; and demonstrating the value of this approach at the individual, institutional and global scales.

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Project Growth

Exponential growth of the program allows more students in more diverse classes to participate in this engaged scholarship model. On campus and in the community, SCC projects continue to educate and build capacity around sustainability challenges.

Welcome

In searching for an appropriate analogy to sum up 2015-16 at the Sustainable Communities Collaborative, I stumbled across an old adage about perennials in the garden:

The first year they sleep, the second year they creep, and the third year they leap!

Just like a garden perennial, it takes time to plant an idea (first year), for the roots of the idea to take hold (second year), and for significant growth to occur (third year). That sums up what happened with Sustainable Communities Collaborative in its third year. We grew by leaps and bounds! We tripled the number of projects (37), doubled the number of students (373), doubled the number of faculty leaders (20) and almost tripled the number of community partners (11). In order to handle our phenomenal growth, we added to our support team by bringing Ilona Ballreich on board as our program coordinator. In short, it was a banner year at the SCC.

We are grateful for the continued leadership and support of the Borough of State College. The Borough is a leader among Pennsylvania municipal governments for their sustainability efforts and helps in myriad ways from underwriting SCC expenses to hosting student poster expositions and participating in multiple projects. It’s hard to imagine the SCC without the Borough’s investment of time, talent and financial support.

We are also grateful for a bumper crop of new partners in 2015-16 including The Nature Inn, Ferguson Township, Friends & Farmers Co-op, MinnLab, New Leaf Initiative, Spring Creek Watershed Association, Discovery Space and Centre County Conservation District. Students also undertook several projects for Penn State in support of the University’s own sustainability efforts.

One of the most rewarding aspects of this work is the impact that it has on our students and the impact that they have on the community. Students overwhelmingly emphasize that they found their projects rewarding because of the positive impact their work has on the community.

They appreciate the hands-on nature of the projects, the opportunity to work in teams, learn more about sustainability and build skills that they know employers value. Their experience with SCC projects leaves them feeling better prepared for careers and professional opportunities after they graduate.

Growth also brings challenges. In past years, we have featured every SCC project in our annual report. This year, with 37 projects vying for limited space, we have had the tough task of selecting only about one-third of the projects to feature in this report. We selected a representative sample of projects to reflect the diversity of Penn State colleges, majors and disciplines. We also selected projects to represent the diversity of topics that our community partners and students delved into, including climate and energy, water, waste minimization and recycling, local food systems, and issues affecting alternative transportation.

As with a garden, it often takes years before sustainability projects come to fruition and for the harvest to be fully realized. As you read this report, we hope that you will be inspired by the work that is being done by our partners, Penn State students and faculty to enhance quality of life in the region today and for generations to come. We think that you’ll be impressed by the breadth and depth of the work that students have undertaken and that you will be filled with a sense of hopefulness for the future as these students graduate and assume leadership positions in communities far and wide.

The Sustainable Communities Collaborative (SCC) connects Penn State students and faculty to local government, non-profit, and business organizations to address sustainability challenges and opportunities. Projects address a broad array of topics including renewable energy, storm water management, local food systems and economic development. Through the SCC, students and professors work directly on high priority, sustainability projects of the community partner, ensuring that student ideas and learning are indeed relevant to communities and that real world complexities inform the University’s teaching and research.

The overall goals are to: 1) provide students with real-world projects to investigate, 2) apply student and faculty knowledge to community challenges, and 3) provide valuable service and movement to a community ready to transition to a more sustainable future.

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Director, Sustainable Communities Collaborative
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mhw1@psu.edu

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Activities in 2016

Strengthening the Relationship Between PERC and PA Government

In spring 2016, SCC Director Dr. Michele Halsell attended PERC, the Pennsylvania Environmental Research Consortium, in Harrisburg for a one-day session aimed at creating a stronger relationship between PERC and Pennsylvania state government. Dr. Halsell moderated a panel discussion with John Dermbach of the Widener University Commonwealth Law School and Penn State’s Brandi Robinson on PERC School Activities on Climate Change Community Outreach.

Engaging Municipal and Local Government Across the State

SCC participated in the PA Downtown Center’s Annual meeting and Conference to learn about sustainable practices and opportunities on the municipal and local government level across the state.

New Staff

Due to the increase in projects facilitated by the SCC, a new part-time staff person was hired in the new year. Ilona Ballreich came to Penn State with extensive experience in community outreach, especially working with non-profit organizations and community development initiatives.

Celebrating Sustainable Communities: The EXPO

The SCC hosts the Campus and Community Sustainability Expo, a poster-style exposition, at the end of each semester. The Fall Expo was held on Dec. 3, 2015 at the Land and Water Research Building. The Spring Expo was hosted by the Borough of State College in its municipal building on Apr. 25, 2016 and was attended by a record number of participants. The Spring Expo in April was the largest to date and included the Student Farm projects and projects executed by faculty and staff Green Teams.

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Student Testimonials

I liked...

...how these projects directly impact the community, and that we have a tangible impact.

...that it gave me the chance to see how a start-up company can incorporate a good business model with sustainable energy.

...that the results of my project were well understood, and those who listened to them wanted to implement our recommendations.

...that it was tied to a specific client and addressed their needs directly. It made me feel like we were having an actual impact on the community.

...the ability to work with stakeholders in the greater Penn State community. It helped me realize that sustainability can be a real career or focus in the corporate world.

...giving back to the community. The Borough of State College does so much for the students at Penn State and I think this was a great way to show them we really appreciate what they do for us. I think our project will help employees of the Borough develop a better understanding of sustainability.

Engaging with an actual company. It made me feel like I was working in the real world.

...that it is easier to understand an issue when you have first-hand experience with it or when it is something happening right in your backyard.

...being able to work on a project where I felt that the research I was doing would actually help make a difference. I liked knowing my teams work will help change residence hall recycling.

...that I was able to have a real client and create a real campaign. This enabled me to get experience for my job in the future.

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Photo by Natalie Leonard

One of the highlights of the Spring Expo was the CNG vehicle display on the plaza at the Borough building. Students in Ryan Russell’s graphic design class competed to design environmentally-focused and educational vehicle wraps. The three selected designs were sent to the fabricator and applied to vehicles owned and operated by Penn State’s Transportation Services. The project is featured in more detail on page 38. Due to the very visible and tangible nature of the project, displayed in front of the Borough building, it was a favorite with the local press. Press coverage included the Centre Daily Times, The Daily Collegian, Penn State News, and television coverage by WTAJ-TV Channel 10.

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"All stakeholders — students, faculty, staff and community partners — benefit. For me, it brings learning to life. It allows students to apply an action research approach and develop skills they will need in the workplace."

- Tom Hogan, LER 460

"I like that SCC provided my students with a real-world problem that they could use as a case study during the class project. The opportunity to work on a real-world problem helped provide a solid background and made the project more 'real.' I think this encouraged students to take it more seriously than a regular class project."

- Vikash Gayah, CE 423

"I like that it culminates in a presentation where students are asked to demonstrate their work to a larger audience. I liked that our community partners were genuine in their investment and interest in the outcomes."

- Tara Wyckoff, COM 473

"The SCC enables fantastic experience for students to apply class objectives to a real-world project and work with partners beyond the classroom."

- Ryan Russell, GD 304

What Are People Saying About SCC?

Community Collaborators

The Borough of State College has been an SCC partner since the program’s beginning in 2013. Of the 42,000 residents, 70% are Penn State students. The Borough strives to create a community that entices visitors with many historic, social, and retail attractions, but also a diverse community that can be home to students, young professionals, internationals and retirees alike. Committed to be a Climate Protection Community since 2007, the Borough has taken steps to be an environmentally friendly community, building bike lanes, purchasing green energy, installing rain gardens, recycling food waste and restoring wetlands. As put by Elizabeth Goreham, the Mayor of State College, "We are committed to a green lifestyle, reducing our energy footprint and sharing what we have learned with our residents so that the entire State College community can work together to further our broad environmental commitment." The SCC has worked with almost all Borough departments and the following Borough staff: Alan Sam, Mark Whitfield, Chief Tom King, Courtney Hayden, Cynthia Hanscom, Amy Kerner, Capt. Matthew Wilson, Tom Fontaine and Ed Holmes.

The Centre County Conservation District (CCCD) administers the soil and water conservation programs as a part of the county government. They are responsible for education, enforcement and assistance with program participants. The CCCD is a collaborative effort with a seven-member board of public sector, farm and commissioner directors; its education coordinator, Ann Donovan, also works with the Centre County PA Senior Environmental Corps (CCPASEC), a volunteer organization concerned with water quality in central PA.

Ferguson Township is adjacent to State College and is home to about 18,000 residents. The township is characterized by its open spaces and farmlands, many of which have been put into conservation easements that will be preserved into the future. Ferguson Township has also been declared a Certified Gold Community by Sustainable Pennsylvania. Township collaborators have been Ray Stolinas and Dave Modricker.

Minitab Statistical Software was created in 1972 by three Penn State professors to help students more easily understand statistics concepts. Today, 90% of Fortune 100 companies use Minitab Statistical Software. Minitab was represented by HR Manager Danielle DeCorsa.

The Nature Inn is located within Bald Eagle State Park, giving visitors a chance for outdoor adventures and activities. The Inn is LEED Gold certified for its efforts to make amenities and operations more environmentally friendly through habitat restoration, rainwater harvesting, in-room energy monitors, Green Seal Certified cleaning products, and more. Nature Inn manager Cody Wolfe served as project point of contact.

1 2011 State College Borough Annual Report
New Leaf Initiative, led by Eric Sauder is a co-working space that brings together community members, students, government and business to “work better, together.” The co-working space provides a location for these groups to increase their collaboration and efficiency. New Leaf also provides and directs innovators to resources that can take their ideas to the next level.

Discovery Space of Central Pennsylvania is an exciting, growing science museum of interactive exhibits and hands-on programs designed to provide valuable education, especially in the areas of Science, Technology, Engineering and Math (STEM), in a fun learning environment. Project liaison was Donna Queeney, Museum Vice-Chair.

The Spring Creek Watershed Association plays a major part in ensuring and measuring the quality of Spring Creek watershed. With this mission, the group promotes sound environmental and economic practices and educates citizens about watershed impacts and protection. Judi Sittler and Bob Vierck served as coordinating representatives.

Foxdale Village was founded in 1985 as a not-for-profit, Quaker directed community. Foxdale occupies a 21-acre campus that gives its 252 residents a beautiful and comfortable place to call home for continued care in retirement. The Sustainable Communities Collaborative worked closely with the resident “Green Committee” led by Julia Hix, and Carolyn and Elwood Hatley. Team members work to enhance existing environmental efforts and hold discussions around sustainability.

Friends and Farmers is a member-owned business seeking to create a full time grocery store devoted to sourcing food and products locally. They currently have 461 member-owners and operate an online market. Friends and Farmers’ mission includes supporting the local economy, providing healthy foods, and bringing the community together. Current leadership is provided by Board Chair Michele Marchetti and outreach coordinator Stacey Budj.

Penn State’s Office of Physical Plant (OPP) provides the services necessary to keep the university running. These services include ones related to stormwater, energy, building design, waste management and landscaping. OPP is committed to sustainability through the Milhaus recycling program, energy savings program, energy conservation measures. LEED standards, electric fleet vehicles and more. OPP partners are Ryan Givens, Rob DeMayo and Shelley McKeague.

Penn State’s Performing Arts Council, represented by Melissa Croushorn, is a student organization within Penn State’s Student Affairs. The Council is a collaboration of performing arts groups that works to achieve the goals of the groups and performing arts generally. The group has played a part in the Thaw music festival, Central Pennsylvania Festival of the Arts and artsUP. The Penn State Center for the Performing Arts was formed in the late 1950s as an Artist Series and extension to the education program. It has since evolved to become an ever-changing and growing Center for the Performing Arts. It is recognized as one of Pennsylvania’s major cultural resources and continues to be a nationally recognized commissioner of artistic works. Our partners are George Trudeu and Amy Dupain Vashaw.
SCC projects address many different problems and topics and accordingly, solutions are sought by students of different disciplines. During the 2015-16 school year, a total of 21 faculty members representing nine colleges facilitated opportunities for students to apply classroom knowledge to real-world challenges.

### College and Faculty Partners

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<td>James Finley</td>
<td>Storm Water Design: Suburban Park, Park Hills</td>
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<td>Heather Gall</td>
<td>Methane Digester Feasibility</td>
<td>State College Borough</td>
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<td>Megan Marshall</td>
<td>Water Quality Monitoring</td>
<td>Centre County Conservation Corps</td>
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<td>Tim Kelsey</td>
<td>Local Economic Resiliency Dashboard</td>
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<td>Matt Royer</td>
<td>Residential Storm Water</td>
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<td>Kate Zipp</td>
<td>Bike Path Location</td>
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<td>Lisa Iulo</td>
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Waste & Recycling

The primary focus of projects in this category is to address mandated or adopted waste management policies. This includes waste minimization, recycling and composting in residential, commercial and public sectors.
Project: Foxdale Village

**Project Profile:**

**Course Objective**: BA 442 is designed to provide students with the knowledge to enhance sustainable behaviors in firms, among consumers and in society at large. In doing so, this course includes frameworks for understanding how to influence sustainable practices, consumer response to sustainability and marketing communication issues as well as real-world examples of sustainable practices and issues, offering both a theoretical and applied approach.

**Community Objective**: Following a spring 2015 collaborative project with SCC that focused on identification of communication strategies, the Foxdale Green Committee hoped to apply those findings to improve Foxdale Village's reuse/recycle program. Students were to identify means of communication across all platforms (visuals and language), and tools to motivate residents to participate and to promote more interest in sustainability both as a community and as individuals.

**The Project**

As an introduction, students toured Centre County Recycling and Refuse Authority (CCRRA) to better understand local recycling standards and applications and the Foxdale Village’s public areas to identify the barriers to recycling. Throughout the semester, students attended Foxdale's Green Committee meetings and "Gatherings," where residents learn about Foxdale-related events. Students also distributed a survey and conducted in-depth interviews with volunteers who agreed to give their opinion about recycling at Foxdale.

The survey was very helpful in identifying the main barriers that included confusing signage on the recycling bins and residents feeling they lacked education about recycling. Students designed brochures with pictures to help explain "how to recycle." Students created sustainable green tips to be published in the weekly Foxdale flyer so that the residents know how to recycle the Foxdale way, and suggested showing a video tour of Centre County Recycling and Refuse Authority on the internal TV channel. Students also designed a pledge campaign to promote public commitment and to continue recycling efforts. A pledge board would be signed by all members who commit to recycling. In addition to the board, students designed magnets that residents who had pledged could place on their doors.

Students also identified the need for more changes at Foxdale. The community has a residential portal where sustainability resources need to be integrated. If members had easy access to educational tips on how to be more sustainable, it would increase the awareness through-out the entire community. Facts shown on television should align with what is printed in the flyers. It is important not to confuse Foxdale residents, and recycling should be made as easy as possible. And lastly, recognizing those who are doing an exceptional job would motivate others to emulate their actions.

A follow-up research project would further enhance Foxdale Village’s sustainability efforts including streamlining existing ambitious zero waste events and benchmarking against similar institutions. The Foxdale Green Team suggested a public measurement campaign, similar to the Red Cross blood drives to actively gauge progress.
Sustainability can be leveraged as a strategy for economic development and as a strategy to enhance the performance of individual businesses whether by reducing cost, improving employee satisfaction and retention, expanding markets for existing products and services, or developing new products and services designed to tap the growing “green” market.
**Project Profile: The Nature Inn**

The first team conducted online research for eco-labels that certify hotels on green practices. By comparing certification options quantitatively and qualitatively, they narrowed the choices to three eco-certifications based on awareness, green benefits, and cost: Energy Star, Green Seal Certification, and Eco-Rooms & Suites.

For the benchmarking portion of the project, the team identified hotels in Pennsylvania to compare to The Nature Inn using TripAdvisor’s “GreenLeaders” certification, a comprehensive list of green hotel characteristics. To match the designation of The Nature Inn, only bed and breakfasts and inns were researched versus large hotels or specialty lodging. The team identified 17 comparable hotels. The characteristics used for the comparison included energy, waste, purchasing, water, site, innovation, and education. The benchmarking data indicated strengths and weaknesses.

**Strengths:**
- The Nature Inn is unique among benchmark study for being LEED certified (Gold); more than 75% of its roof painted white to provide cooling, uses organic toiletries; and is located in a State Park.
- The Nature Inn is one of only two hotels that uses a geothermal heating and cooling system; recycles used cooking oil; and has water that is heated by solar thermal.

**Weaknesses:**
- Heating or air conditioning temperatures are not set to save automatically in the guest rooms, no Energy Star laundry machines; toilets do not have 50% recycled packaging
- The Inn does not compost yard waste, or recycle furniture and mattresses.
- The Inn lacks organic and/or local products (at least 50%) for beverages, grains, produce and meat.

**Project: Group 1 - Eco-tourism Certifications and Benchmarking**

Students were divided into three succinct parts to be addressed by individual student teams. The resulting product was a set of recommendations for improving both online and community presence.

1. A review and evaluation of eco-certifications, including their costs and requirements for implementation to determine those most beneficial to enhance The Nature Inn’s presence in the ecotourism marketplace. In addition to eco-certifications, a benchmarking of the Inn compared to similar park properties around the country as well as benchmarking against hotels in the general location was useful to better position the Inn.

2. A marketing strategy for The Nature Inn based on their sustainability initiatives as well as their event facilities.

3. Assessment of the Inn’s web and community presence and strategies for improving both online and community presence.

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**Green Marketing Plan for the Nature Inn**

**BA 442:** Sustainable Behaviors of Consumers, Firms, and Societies

Professor: Karen Winterich

Students were divided into three groups to support the design of potential marketing approaches at the Nature Inn. Two groups focused on website design and function, eco-tourism certifications, and benchmarking against comparable national and local hotels. The third group devised a comprehensive marketing strategy for the Inn including flyers, press releases, etc.
The second team came up with a well-organized and thought-out potential marketing strategy for the Nature Inn at Bald Eagle State Park.

Recommendations:

- Increase customer engagement
- Reach a larger target audience including families, millennials and couples
- Gain insight from surveys to develop more productive approaches and get a sense of trending activities that would bring in more guests
- Enhance customer satisfaction and consumer market by offering:
  - Annual Nature Inn packages and specials
  - Host a dinner special once a month
  - Partner with local vendors to introduce guests to their products, feature
    seasonal Nature Inn packages and specials

The third team had the task of analyzing The Nature Inn's web presence. Their first discovery was that the Inn's website was outdated and that the current online booking process could be confusing. This was seen as an opportunity to interact with the Inn manager, owner and park ranger.

The proposed solution for social media presence was to have The Nature Inn use the beauty of the location to its advantage by updating a Pinterest board and creating a Snapchat filter that would capture the beauty of Bald Eagle State Park while advertising the eco-hotel. The final problem identified was that the Nature Inn wasn't taking advantage of the visibility benefits offered by being on third party sites. To improve this, the team gathered information on how and why being on a site such as TripAdvisor is beneficial to the hotel.

The Project: Group 2 - Marketing Strategy

The Project: Group 3 - Web Presence

The Project: Group 4 - Economic Dashboard

Since the Nature Inn is located remotely at Bald Eagle State Park, 25 miles from University Park, the SCC arranged and paid for busing students to the Park where they toured the facilities and gathered first-hand impressions, and had the opportunity to understand how to measure or represent the resilience of a local community.

Course Objective

This course is designed to encourage students to reflect, integrate and apply the knowledge that they have learned in previous coursework for the CED major to a specific case study.

Community Objective

The economic resilience of a community is an important component to consider when evaluating the community's sustainability and health. At the national level, economic resilience is a more widely covered topic, but there is much less information on this topic at the local community level. A team of CED 475 students conducted background research and design for an online Economic Resilience Dashboard, intended to help Pennsylvanians assess the strength of their local economy. The team focused on identifying critical information needed in such a Dashboard, data sources, and created discussion questions for users and assembly of data. Examples for potential elements of the Dashboard include the diversity of the local economy, vulnerability to outside economic shocks, share of purchasing done locally, and investment flows. Feedback will be shared with an IST class next semester, who will do the actual web design and coding.

The Project

Students conducted interviews and a literature review to understand how community development professionals view economic resilience at the local level and to identify a potential audience for the dashboard. The literature review examined the available literature on economic resilience in order to understand how to describe the resilience of a local community, and how existing economic dashboards are designed to clearly represent economic resilience for the intended audience. Using the criteria identified, students collected data on Centre County, Pennsylvania and the Commonwealth of Pennsylvania. In order to determine a proper definition of economic resilience, CED 475 students enlisted the help of experts and professionals in the community and economic development fields in Centre County, including logical flow and clear representation of data in tables or other graphic representations. Recommendations also include continuous updating of the dashboard, including adding categories to provide more detail. Specifically, the menu bar would show broad categories including demographics, income, employment, and industry with subcategories optional. A county menu would allow for easy search for specific county data.
Natural Systems

Projects in this category aim to analyze, protect and restore the natural resource base upon which life depends. In this section we explore issues relating to air quality, water quantity and quality, and ecosystems outside the built environment.
### Project Profile: Water Quality Monitoring in the Spring Creek Watershed

**Course Objective**

The purpose of this class is to introduce students to measurement and monitoring equipment and techniques commonly used in the design and analysis of hydrologic systems. The first part of the course is hands-on labs both indoors and outdoors, and the second part of the course is computer-based labs in Agricultural Engineering. The course covers the analysis and understanding of watershed hydrologic systems, including various aspects of collecting site- and watershed-specific topographic, soils, runoff, and landscape data; and processing and manipulating such data using common engineering and mapping tools. This course focuses on practical experiences in hydrologic site studies including spatial management practices, flow measurement, stream assessments, and water quality sampling and analyses.

**Community Objective**

Students monitored water quality and mapped the land use at two sites at Halfmoon Creek and two more at Buffalo Run for a duration of approximately six to eight weeks. This was in an effort to determine how to improve or sustain the environmental conditions of the streams.

### The Project

The purpose of the project was for students to gain hands-on experience with water quality and monitoring as well as helping the CC-PaSEC and Centre County Conservation District with education efforts in the public. Students suggested to record other aspects such as pH, nitrates, alkalinity, conductivity, etc. This would have allowed them to be able to monitor and check the effects that the land use has on the waterways. For instance, students from Dr. Heather Gall’s ERM 309 partnered with the Centre PA Senior Environmental Corps to monitor water quality at different streams in the Spring Creek watershed area. As part of a Technology Fee grant that Dr. Heather Gall received, she purchased four sets of real-time monitoring equipment for the students to deploy at study sites in Centre County. The equipment included a metal tripod, a white enclosure box that was mounted to the tripod to house the datalogger in the enclosure box and into the stream. The sensors included a dissolved oxygen probe, a water level sensor, and a rain gauge. A full report for each of the four sites (Halfmoon Creek’s Weaver Site and Llama Farm, and Buffalo Run’s Bonner Park and Robl Site) was developed for the Centre County PA Senior Environmental Corps (CC-PaSEC). The research found that, typically, increased rainfall correlated with higher water temperature and stream depth while dissolved oxygen was inversely related. The specific data indicated that both Halfmoon Creek and Buffalo Run are of the proper quality to sustain a variety of aquatic life. They also suggested that there are no unaccounted for factors contributing to large changes in water temperature, depth, and dissolved oxygen.

The students’ research acts as a starting point for the CC-PaSEC to further evaluate the water quality of Halfmoon Creek and Buffalo Run. Members of the CC-PaSEC also offered their expertise in macroinvertebrate surveying to the students. While this was not an assumed component of the project, students were able to learn and practice this skill. Through this project, students learned about the different scientific processes that are involved during collaborations between environmental monitoring projects and the surrounding communities.

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<thead>
<tr>
<th>Project</th>
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<tbody>
<tr>
<td>Water Quality Monitoring</td>
<td>Students in ASM/ERM 309 installed water monitoring equipment at Halfmoon Creek and Buffalo Run to measure dissolved oxygen, water level and rainfall. They created technical maps of land uses in the watershed and a comprehensive report of the water quality and land use findings.</td>
<td>Spring Creek Watershed Association</td>
</tr>
<tr>
<td>CED 475: Integrated Capstone Experience</td>
<td>Students in CED 309 created maps and other tools to help educate local leaders and the general public about the impacts of development and land use on the Spring Creek Watershed and its role as an economic asset to the community.</td>
<td>Centre County PA Senior Environmental Corps (CC-PaSEC)</td>
</tr>
<tr>
<td>Economic Loss due to Ashborer</td>
<td>Students in CED 309 estimated the loss of ash trees to the emerald ash borer, explored strategies to maximize the value of removed trees, and analyzed the impact of tree loss on property values and the perceptions of private investment in tree planting.</td>
<td>State College Borough</td>
</tr>
<tr>
<td>Residents’ Attitudes towards Spring Creek Watershed</td>
<td>CED 475 students designed and administered a survey to determine residents’ awareness of Spring Creek Watershed, their knowledge and use of stream-friendly behaviors, and their attitudes toward policy options to help maintain a healthy watershed.</td>
<td>Spring Creek Watershed Association</td>
</tr>
<tr>
<td>Water Quality Monitoring</td>
<td>Students in CED 475 analyzed stream health and water quality at multiple locations in Centre County. The sites have been subject to varying land uses and agricultural activities. Students gave a full account of findings and recommendations as appropriate.</td>
<td>Spring Creek Watershed Association</td>
</tr>
</tbody>
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*Photo by Scarlett Li*
Energy

Projects in this category address energy concerns, reduction of climate impacts through adaptation and mitigation efforts and increased resource efficiency. Projects include greenhouse gas emissions inventories, energy efficiency and renewable energy.
Students evaluated the feasibility of a methane digester in State College. They considered whether the project was economically viable, such that the collected methane gas would be sold to electric companies and the lift off, nutrient rich fertilizer could be sold to the community.

A past SACC project in spring 2014 determined residents’ interest in purchasing green power. This project added to the past research by testing the effectiveness of different messages to determine how signing up could be improved.

The Borough sought to understand the local perception of a community-based energy generation system. Students helped by identifying stakeholders, relevant issues, and potential opportunities, planning and facilitating discussions, and summarizing their findings in a final report.

Students determined feasible renewable energy sources for the Borough to explore, research current borough rules and regulations, and made recommendations for what the borough should do to encourage greater use of renewable energy sources.

LED Street Light Cost Benefit
PHL 118 H Environmental Philosophy
Professor: Tim Kelsey

Students used existing data about street lights in the borough to estimate current energy use and GHG emissions attributable to street lights, calculate the cost of switching to LED lights, estimate associated energy savings, identify potential funding/allowances to help defray the cost of switching to LEDS, and estimate cost savings and payback.

The Project: Climate Change Impacts in the Borough

Between 1970 and 2008, average annual temperatures in Pennsylvania rose by 0.7 °F. Over the next century, rising temperatures in the atmosphere are projected to continue and accelerate due to rising levels of GHGs in the atmosphere.

The Greenhouse Gas Emissions Inventory

Students developed a method to calculate the greenhouse gas emissions in the State College area. The project utilized Penn State specific data such as CATA transportation miles and population changes at University Park. The method is replicable to Commonwealth Campuses.

Students created a marketing plan for the Penn State Collegiate Wind Competition Team’s start-up company, PowerPlay. The business will provide portable back-up solar and wind energy and renewable energy to recharge personal devices such as phones.

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The team identified the two most feasible feedstock streams would be the Borough's and COG's, which also suggested that the Borough would not meter the electricity to use the utility as much as possible. Therefore, if the Borough were to create a digester and sell all the fertilizer and net meter electricity at $0.09 per kWh, it would take the Borough 32 years to pay off the digester. However, because it is unlikely that the Borough will sell all of the fertilizer, the team also would look at the project as if the Borough were to only net meter the electricity. If the Borough's interest in signing-up were to be pared down to a feasible solution. If the Borough were to team up with COG, the project becomes more feasible. If the Borough and COG sell all fertilizer and net meter electricity it would take 22 years to pay off the digester. If the Borough and COG were to just meter the electricity it would take 28 years to pay off the digester. Because these pay-off years are not within the 20-year payback time, the team believes that the Borough should sell all of the fertilizer and net meter electricity because it is more effective in communicating the benefits of green power and result in residents switching to a green power provider.

The Project

This project used Community Based Social Marketing to encourage and assist State College Borough residents to sign up with a renewable energy supplier. Data collected in Spring 2014 by students in a senior capstone class (Psych 490) with Penn State students (Study 1). This study resulted in slight modifications to the pamphlet to residents.

Future directions: The final step in this program is for the Borough to distribute the pamphlet to residents.

Results: Participants were more likely to indicate a commitment to signing up with a renewable energy supplier when provided a pamphlet rather than a web link for access to renewable energy supplier options, particularly when the pamphlet contained strong scientific information that highlighted community-based collective action.

Future directions: The next step in this program is for the Borough to distribute the pamphlet to residents.
Built Environment

Projects in this category address sustainability in our built environment. Examples include compact and complete neighborhoods, including re-use of existing structures, affordable housing, community water systems and stormwater infrastructure, public parks and other amenities and features that promote alternative transportation such as walking, bicycling and public transit.

Design projects often follow a different format with presentations rather than reports for final, cumulative student work. Designs generated by students are also considered the intellectual property of the student(s), and may not be reproduced without consent.
## Built Environment

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<tr>
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<td>Residential Stormwater Management ERM 497A: The Chesapeake Bay Watershed</td>
<td>Students held a residential stormwater management workshop with Ferguson Township. The workshop educates homeowners about problems associated with stormwater runoff, provides tools that can be used to reduce runoff and encourages property owners to adopt best management practices.</td>
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<td>Stormwater Design—Suburban Park, Park Hills (2 yr. Projects) BE 4-07</td>
<td>Three teams created plans to mitigate stormwater issues in Suburban Park and Park Hills. Students delivered preliminary engineering designs that proposed solutions to erosion problems that are both cost effective and meet the needs of the community. As part of the project, students conducted research of structures such as rip rap and gabions as restoration and management techniques, collected data from external sources (US Fish and Wildlife Service), designed appropriate to site and environmental preservation goals, and operated according to the ethical standards of the local township and community.</td>
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<td>Discovery Space Redesign ARCH 431: Synthesis in Architecture and Design</td>
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<td>Bike Path Locator CED 309: Land Use Dynamics</td>
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## Bike Path Locator

- **Course Objective**
  - ARCH 431, the four-year architecture studio, emphasizes the development of skills in research, documentation, analysis and presentation of project-related physical and cultural information. The studio curriculum investigates the role of the architect in urban design, especially the design relationship between individual buildings, groups of buildings, exterior spaces, streets and streetscapes. Students explore the synthesis of individual landmark buildings, building groups, urban landscape and service systems.

- **Community Objectives**
  - The Borough of State College is planning the redevelopment of a large portion of Downtown for the Allen Street Civic District. This area has long been envisioned as a civic and cultural hub for the Borough and the Centre Region. Located in downtown State College, the Allen Street corridor is an ideal location for redevelopment as a civic district. The Borough sees a public-private partnership as the best opportunity for redevelopment of the Allen Street Civic District; such a partnership would allow the Borough to reach an agreement with other parties to structure a deal which is economically viable for all of the partners involved. In collaboration with the State College Borough Planning Office and board members of Discovery Space, students explored a design for the former Verizon Building site to accommodate a home for an expanded Discovery Space Children’s Science Museum and to serve as a cultural hub and community asset for the Borough.

### Project Profile: Discovery Space Redesign

- **Photo by Lisa Iulo**
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- **The Project**
  - Students designed development proposals for the proposed site following the fundamental project questions:
    - What is the most viable mix of program/use for the existing underutilized sites within the proposed Allen Street Civic District Redevelopment area?
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Arts & Culture

This category recognizes the important role that the arts and culture play in enhancing quality of life. This category includes creative expression, educational opportunity and attainment, historic preservation, and celebrates social and cultural diversity.
The Role of the Arts in the Workplace: Skill Development
LER 460: Human Resources Ethics
Professor: Tom Hogan

Students in LER 460 were charged with designing employee engagement strategies focused on the arts and furthering art event sponsor benefits. Students conducted employer interviews to determine employer attitudes toward the role of art in the workplace and designed workplace activities to promote art, culture and employee engagement.

CNG Vehicle Wrap
GD 304: Practical Communications
Professor: Ryan Russell

Following successful vehicle wraps on some of its fleet vehicles, Penn State Transportation Services was seeking innovative ways to promote its CNG vehicles and sustainability efforts in general. The graphic design students of GD 304 created and presented their designs, with Transportation Services selecting the top three candidates. These designs were then produced and the ‘wrapped’ cars presented at the annual EXPO.

Capturing the SCC Story
PHOTO 402: Photographic Narratives
Professor: Steve Rubin

Students in Photo 402 photo-documented SCC facilitated projects. They photographed classroom presentations, field trips and site visits. Some of their photos are featured in this document.

Project Profile: Wrap for CNG Fleet Vehicle

Course Objective
GD 304 explores the essential relationship of the verbal and visual aspects of design to the communication of a message to a specific audience. Each student met with clients to develop strategies and advance individual projects from initial client contact to finished work. Students conducted research, presented rough ideas to the client, prepared presentations and carried the work through to production resulting in a finished piece.

Community Objective
Penn State Transportation Services sought a selection of student design vehicle wraps for three new compressed natural gas (CNG) vehicles to be used on campus. Transportation Services selected effective designs with an environmentally friendly, departmental (Transportation Services) and educational message. Transportation Services provided the printing template used for the vehicles.

The Project:
Students saw the vehicles at the beginning of the semester and received directives from Transportation Services as to intentions for the design. Transportation Services also provided templates for the design dimensions and acted as liaison to have three chosen designs printed and installed on the vehicles for the EXPO. All student designs were displayed at the EXPO in poster format and the vehicles were displayed with the top three chosen wraps.
The Center for the Performing Arts was seeking a model to implement the arts into the workplace that could be presented to performance sponsors. This would help with employee engagement and produce a more positive company culture. This model should address both sponsor benefits and integration of the arts into the workplace. As such, the organization should embrace and honor cultural diversity by representing artistic traditions specific to the company’s and employees’ culture. The approach should work in tandem with performance hosted by the Center for the Performing Arts, especially those chosen for the CPA is a form of corporate social responsibility, and furthers some social good. Corporate social responsibility is a key element to sustainability, both of which are closely related to ethics. Employees desire to work for businesses that value ethics, sustainability and culture. Therefore, employee engagement programs that incorporate the CPA provide a multifaceted benefit for the community, sponsors and their workers.

When asked about how the arts benefit the workplace, Thomas Miller, an associate of McQuaide-Blasko Attorneys at Law, stated “If you do it correctly, the arts form a very positive atmosphere, provide an optimistic attitude, and productive workplace.” He continued, “the CPA provides excellent programs that allow people to enjoy music and performing arts that they otherwise would not be able to enjoy without traveling great distances. This makes the arts more accessible to those who otherwise would not have the opportunity, and greatly enriches the experience of living in Centre County.”

The students wanted to create a solution that would also increase employee engagement. According to research, “actively engaged employees help an organization through increased productivity, higher customer loyalty, higher profits per employee, and fewer accidents.” Therefore, the solution should not just make the workplace a more positive environment, it should also yield better results for management. The students concluded that they would develop a “Spirit Week” initiative to prime sponsoring companies the week of a performance, causing higher employee engagement and a more diverse, welcoming company culture. The plan is intended to occur the week leading up to a sponsored performance, however, Spirit Week can be utilized as often as appropriate.

The Spirit Week consisted of a five-day schedule of events to fix the aforementioned lack of company culture, fostering a healthier workplace environment, as well as higher employee engagement. Each day of the week is outlined appropriately, detailing what will take place and how it will be beneficial to solving this problem. The table below offers a brief outline of each day’s events.

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
</table>
| Monday | **Art Appreciation**
| Tuesday | **Music & Dance**
| Wednesday | **Dress in Color**
| Thursday | **Room Makeover**
| Friday | **Live Performance**

**Student Interview:**

Thomas Miller, McQuaide-Blasko Attorneys at Law

What do the arts mean to you? The Arts bring joy to so many people in the community. It’s difficult to imagine what our existence would be like without them. Locally, the Center for Performing Arts provides excellent programs that allow people to enjoy music and performing arts that they otherwise would not be able to enjoy without traveling great distances. This makes the arts more accessible to those who otherwise would not have the opportunity and greatly enriches the experience of living in Centre County.

How do you think the arts benefit the workplace? In my experience, in the workplace, the arts are beneficial in very understated, but no less important ways. The design of the building, both interior and exterior; the art hanging on the walls; the colors selected for the carpet and paint; the pictures and photos and other personal items that people choose to surround themselves with; the music that plays in the background. All of these contribute to a larger environment that affects an employee’s mood and morale. If you do it correctly they all form a very positive environment and generate an optimistic attitude and productive workplace.

**Project Objective:** To increase employee engagement by incorporating the arts into the workplace through a creative workforce/environment.

**Community Objective:**

- The Center for the Performing Arts provided excellent programs that allow people to enjoy music and performing arts that they otherwise would not be able to enjoy without traveling great distances. This makes the arts more accessible to those who otherwise would not have the opportunity, and greatly enriches the experience of living in Centre County.
- Student engagement programs which incorporated CPA performances and employee engagement programs for the Performing Arts and its local sponsors, students discovered that employee engagement programs which incorporated CPA performances could benefit businesses, their workers and the community. By sponsoring CPA performances, businesses were provided with employee engagement opportunities for their staff. For example, sponsors were given complimentary tickets to the performance. Employee engagement programs are critical for attracting and retaining talented employees, as many value companies with strong cultural diversity.
- Students determined that giving back to the community through support of the CPA is a form of corporate social responsibility, and furthers some social good. Corporate social responsibility is a key element to sustainability, both of which are closely related to ethics. Employees desire to work for businesses that value ethics, sustainability and culture. Therefore, employee engagement programs that incorporate the CPA provide a multifaceted benefit for the community, sponsors and their workers.
- Corporate social responsibility is a key element to sustainability, both of which are closely related to ethics. Employees desire to work for businesses that value ethics, sustainability and culture. Therefore, employee engagement programs that incorporate the CPA provide a multifaceted benefit for the community, sponsors and their workers.

**Course Objective:**

LER 460 is a hybrid class (i.e., face-to-face and online) designed for advanced students of human resource management who wish to explore the course of Ethical Leadership. A key operating assumption of this course is that every employee of an organization has a responsibility to demonstrate ethical leadership. These internated, and mutually reinforcing subject areas are explored in the course at the individual, organizational and transnational levels—ethics, social responsibility and sustainability.

**Student Interview:**

**Project Profile:**

**Arts in the Workplace of Skill Development**

**Project Objective:**

- To create a model for how employers can effectively incorporate the arts into the workplace that could be presented to performance sponsors. This would help with employee engagement and produce a more positive company culture.
- To identify the benefits of embracing cultural diversity in an organization in relation to skill development and work environment. They then engaged with the Center for the Performing Arts and the local businesses that sponsored them (Northwest Savings Bank and McQuaide-Blasko Attorneys at Law) through interviews. Using their research as a starting point and with the Center for the Performing Arts, especially those selected for the CPA is a form of corporate social responsibility, and furthers some social good. Corporate social responsibility is a key element to sustainability, both of which are closely related to ethics. Employees desire to work for businesses that value ethics, sustainability and culture. Therefore, employee engagement programs that incorporate the CPA provide a multifaceted benefit for the community, sponsors and their workers.
- To determine how sponsors can promote cultural diversity within their organization through the arts, and how sponsors can benefit from employee engagement programs which incorporated CPA performances. The students wanted to create a solution that would also increase employee engagement. According to research, “actively engaged employees help an organization through increased productivity, higher customer loyalty, higher profits per employee, and fewer accidents.” Therefore, the solution should not just make the workplace a more positive environment, it should also yield better results for management. The students concluded that they would develop a “Spirit Week” initiative to prime sponsoring companies the week of a performance, causing higher employee engagement and a more diverse, welcoming company culture. The plan is intended to occur the week leading up to a sponsored performance, however, Spirit Week can be utilized as often as appropriate.

**Course Objective:**

LER 460 is a hybrid class (i.e., face-to-face and online) designed for advanced students of human resource management who wish to explore the concept of Ethical Leadership. A key operating assumption of this course is that every employee of an organization has a responsibility to demonstrate ethical leadership. These internated, and mutually reinforcing subject areas are explored in the course at the individual, organizational and transnational levels—ethics, social responsibility and sustainability.
Health and Safety

Human health and safety are key components of the social dimension of sustainability. This category of projects includes topics in communities that foster healthy outcomes such as active living, the ability to bike or walk as a form of transportation, access to healthy food, and the prevention of accidents.
### Traffic Safety at Park Ave. and Atherton St. Intersection

**Operational Traffic Performance**
- Atherton St. Corridor
- CE 528: Transportation Safety Analysis
- CE 423: The course introduces students to the concepts and techniques of traffic engineering. Students focused on the operational performance of the Atherton Street corridor. Teams collected data on signalized intersections and created recommendations to improve vehicle travel. The students discussed how their data and recommendations might influence the safety performance.

### Community Objective
- The Atherton Street and Park Avenue intersection has been noted as a safety concern. Many “near misses” and traffic violations as well as severe crashes support this concern. The State College Police Department and students in CE 423 and CE 528 joined forces to analyze the safety of the Atherton Street corridor.

**Project Profile: Traffic Safety at Atherton & Park**

<table>
<thead>
<tr>
<th>Project</th>
<th>Project Summary</th>
<th>Community Partner</th>
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<tbody>
<tr>
<td>CE 423</td>
<td>Five groups of undergraduate students collected, analyzed and predicted traffic safety for the Atherton Street corridor intersections from (Park Avenue to Beaver Avenue). Each group conducted field research to determine configuration and measurements, signal timings, turning movement counts, saturation flows and speed. The data was then compared to traffic volumes and signal timings collected by the State College Borough in 2013 using traffic operations software. For the Atherton Street and Park Avenue intersection, potential operations and safety issues included long delay of signals, permitted Atherton Street southbound left turn, and CE 423. The course introduced students to issues and methods in transportation safety, focused on reportable crashes as well as surrogate measures of safety. Students performed traffic safety analysis and identified factors contributing to crashes by analyzing a statewide hardcopy crash records from transportation agencies. Students then applied the transportation safety management process to a local intersection safety project.</td>
<td></td>
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<tr>
<td>CE 528</td>
<td>Three groups of graduate students analyzed the safety of major intersections in the Borough. Student teams received PennDOT video of the Atherton Street and Park Avenue intersection from Aug. 14 to Sept. 16. Students identified traffic safety violations related to vehicles, pedestrians and bicycles, at intersections and crosswalks. Nineteen violations were noted including aggressive lane changing, taking a right turn on red and jaywalking. The videos were then analyzed for the presence of these violations across four variables: weekend vs. weekday, time of day, time period of the semester and presence of enforcement. The most significant number of violations was seen in regards to right turn on red violations and stopping in the crosswalk of the right turn lane going northbound. Recommended considerations included red light cameras, fences before pedestrian crosswalks and rumble strips on all approaches. Students used secondary crash data from PennDOT and the State College Borough Police Department to create safety models that predict future traffic accidents. Localized and PennDOT based safety performance functions were generated and found that crashes throughout the Borough would be expected to increase. One predicted a significant decrease in accidents while the other predicted a slight increase. A collision diagram of the Atherton/Park intersection visualized accidents from 2010-2015. Given the safety performance functions and collision diagram, countermeasures were recommended including prohibiting right turn on red, advanced warning and detection systems, and retiming signal to decrease permissive left turns going southbound.</td>
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**Atherton Street and Park Avenue intersection**

- The Borough identified traffic safety problems at the intersection of Atherton Street and Park Avenue, which included long delay of signals, permitted Atherton Street southbound left turn, and right turn on red. Students were tasked with analyzing the safety performance of the intersection and recommending countermeasures to improve safety.

**Student Farm PR Campaign**

- **PennState Student Farm**
  - **Course Objectives**
  - **Project CE 423**

**Operations and Safety Issues**

- Potential operations and safety issues included long delay of signals, permitted Atherton Street southbound left turn, and right turn on red.

**Safety Models**

- Students used secondary crash data from PennDOT and the State College Borough Police Department to create safety models that predict future traffic accidents.

**Countermeasures**

- Recommended considerations included red light cameras, fences before pedestrian crosswalks and rumble strips on all approaches.

**Traffic Performance**

- Students analyzed traffic performance for the Atherton Street corridor, focusing on operational aspects such as signal timings, turning movement counts, saturation flows, and speed.

**Data Collection and Analysis**

- Students collected data on signalized intersections and created recommendations to improve vehicle travel. They discussed the data and recommendations in the context of traffic safety performance.

**Community Engagement**

- Students worked with the State College Police Department to create safety models and predict future traffic accidents.

**Visualization**

- A collision diagram was used to visualize accidents from 2010-2015, providing insights on safety improvements needed at the intersection.

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  - **Course Objectives**
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- Students collected data on signalized intersections and created recommendations to improve vehicle travel. They discussed the data and recommendations in the context of traffic safety performance.

**Community Engagement**

- Students worked with the State College Police Department to create safety models and predict future traffic accidents.

**Visualization**

- A collision diagram was used to visualize accidents from 2010-2015, providing insights on safety improvements needed at the intersection.
Project Profile: Pedestrian & Vehicle Safety PR Campaign

Students in COMM 473 were tasked with creating such a public relations plan. The team broke their research into three categories: Awareness, Origin and destination, effective campaign design and messaging. Safety Week would occur once during the fall semester and involve public safety awareness, including traffic and pedestrian safety, throughout the Borough.

The Project:

One-on-one interviews with a Borough police officer, a community member who felt unsafe when crossing Atherton Street, reinforcing the importance of pedestrian awareness of laws and the three fatalities at the intersection in the past two years. The team found that roughly 76% knew of the deaths and awareness of laws and the three fatalities at the intersection in the past two years. The team found that roughly 76% knew of the deaths and aware of the street. The campaign takes on a positive approach to reach the various target segments together with a storyteller to inform audience specific messaging. Students also examined media platforms for communicating the messaging. These included Snapchat, Twitter, Onward State, The Centre Daily Times and HappyValley.com.

Stakeholder Group:

Students in COMM 473 were tasked with creating such a public relations plan. The team broke their research into three categories: Awareness, Origin and destination, effective campaign design and messaging. Awareness, origin and destination, effective campaign design and messaging. Safety Week would occur once during the fall semester and involve public safety awareness, including traffic and pedestrian safety, throughout the Borough.

The main strategy selected is that of a public safety awareness week that leverages social media and a strong local media relations component. Safety Week would occur once during the fall semester and involve public safety awareness, including traffic and pedestrian safety, throughout the Borough. Students in COMM 473 were tasked with creating such a public relations plan. The team broke their research into three categories: Awareness, origin and destination, effective campaign design and messaging. Awareness, origin and destination, effective campaign design and messaging. Safety Week would occur once during the fall semester and involve public safety awareness, including traffic and pedestrian safety, throughout the Borough.

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The goal of this campaign is to promote traffic and pedestrian safety awareness to the greater State College and Penn State communities. Messages to be shared with the public include the importance of following traffic safety laws and crossing when it is safe. Overall, the main idea for this public relations campaign is to get the target audiences to become more mindful of how they behave when crossing the street. The campaign takes on a positive approach to reach the various target segments together with a storyteller to inform audience specific messaging. Students also examined media platforms for communicating the messaging. These included Snapchat, Twitter, Onward State, The Centre Daily Times and HappyValley.com.

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Course Objectives

COMM 473 is designed to provide students with the opportunity to develop a comprehensive public relations/marketing campaign plan based on the four-step process of public relations programming. Those steps include research, objectives, programming and evaluative re-
test. The public relations plan requires the development of a media plan, media objectives, production timetable and budget for imple-
menting the program objectives, strategies and tactics. The final phase of the public relations/marketing plan includes the design of evaluative research to measure the effectiveness of the program objectives.

Community Objective

Friends & Farmers Cooperative (F&F), which aims to open a communi-
ty-owned grocery store with a focus on local food, launched its mem-
bership campaign in March 2014. To date, 417 households have joined, but double that number is needed to sign a lease on a location and hire

The Project:

Audience: The Local Fitness Community

A 2014 survey conducted by F&F found that interest in the local food economy and increased access to local food were the primary reasons current owner-members joined F&F. Students found that the target audience of the campaign needs to be contacted through women interested in (a healthy lifestyle) is interested in purchasing local foods. However, that interest is outweighed by the desire to purchase convenience F&F must therefore bring the co-op to the public through an event that engages this new audience at their own convenience.

In preparation for this campaign, students examined published academic research and case studies related to local food co-ops. Research also included a case study of four successful co-ops which focused on community cooperation and building partnerships, including with the National Natural Food Co-Op Food Network.

The students identified the local fitness community as a potential client segment for F&F. Research provided insights into how this population identifies with F&F, and the students designed a plan for a kickoff F&F smoothie event at Power Your Body, a local fitness studio. This event allowed the gym members to gain awareness, information, and a reason to join the co-op. Students planned to incorporate the local media by sending out press releases, radio statements and gaining television coverage for the event and to promote the event via local social media, media and informing the gym members by leaving flyers at the gym.

The students recommend that F&F survey several community-based gyms in State College followed by hosting a smoothie event at one of the suggested gym classes for promotional purposes. The smoothies will be available post-workout so F&F could market to gym members. Students would inform about F&F, the website, member information, a sign-up sheet, and a recipe feature of the month sign-up, which will allow the gym members to gain awareness, information, and a reason to join the co-op. Students planned to incorporate the local media by sending out press releases, radio statements and gaining television coverage for the event and to promote the event via local social media, media and informing the gym members by leaving flyers at the gym.

Audience: Students

This section addresses the untapped student market that is seeking a fresh, local food option for their grocery needs. F&F can already fulfill these needs through their online marketplace but faces competition from grocery store chains such as Walmart or Trader Joe’s. The biggest challenge will be overcoming the brand loyalty and consistency a chain store provides, as well as the price gap and convenience factors. The project team gathered data to assess student awareness of the local food movement and F&F Co-op. The final phase of the public relations/marketing plan includes the design of evaluative research to measure the effectiveness of the program objectives.

The Project:

Audience: The Local Fitness Community

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F&F will be able to use the video content for a variety of purposes. A fun, heavily social media driven campaign would be best for reaching students. They recommended promoting and executing a “foodie” social media contest where students are encouraged to cook meals using fresh, local ingredients and posting a picture to social media with the chance to win a significant prize. Students encouraged F&F to remain up to date with their own social media, to highlight their delivery options, targeting those who value convenience and working out a pricing system that caters to economically-minded customers.

“I am Friends & Farmers” Campaign:

Students wanted to tackle the misconception that the local food movement is exclusive, by highlighting the diversity in the existing membership in a storytelling fashion. Content was driven by why members join strongly about their part in the Friends & Farmers story. The content theme “I am Friends & Farmers” was developed through interviews with F&F members. It was also important to the team that the content be repurposed by F&F across various media such as Snapchat and Instagram, providing online recipes and videos to familiarize students with food preparation and weekly specials.

The students interviewed on videotape two members of the local collaborative about buying locally grown food. Interviews focused on the local economy, misconceptions and benefits of membership in the co-op. F&F will be able to use the video content for a variety of purposes. A fun, heavily social media driven campaign would be best for reaching students. They recommended promoting and executing a “foodie” social media contest where students are encouraged to cook meals using fresh, local ingredients and posting a picture to social media with the chance to win a significant prize. Students encouraged F&F to remain up to date with their own social media, to highlight their delivery options, targeting those who value convenience and working out a pricing system that caters to economically-minded customers.

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