### Project Description

#### 1. University South - EMS

**Faculty Partner:** Charlie Knox  
**Community Partner:** St. Mary’s School

Students served as coaches for the St. Mary’s First Lego League Team, and assisted them with their robotic project. The project involved robot design and construction, and programming the robot to accomplish certain tasks in a robot competition. The UW-P students assisted the St. Mary’s students in identifying a problem related to the “Body Forward” theme for 2010. They helped the St. Mary’s students research the problem, identify solutions, and prepare a presentation. For Tech Ed students, this project has the added applicability of satisfying one of their portfolio requirements of engaging in a community activity.

#### 2. PV East - EMS

**Faculty Partner:** S. Balachandran  
**Community Partner:** Mendota Mental Health Institute

A student team developed a system manual for the powerplant at the Mendota Mental Health Institute. They documented the flow of coal & ash, make-up water, high & low pressure steam, and condensate in the system using appropriate charts, diagrams or tables to provide an over view of the entire system and also details of each subsystem. They summarized specification for each subsystem and list system operation parameters. Each system will be described and references available at the powerplant will be listed and used. Maintenance checklist for subsystems and components will be developed or updated. An operation manual will be developed for each subsystem, component and the entire system. The operation manual will identify the scheduling of personnel and maintenance tasks.

#### 3. PV East - EMS

**Faculty Partner:** S. Balachandran  
**Community Partner:** Frito Lay

A student team will study the current operation of the flattened carton inspection, stacking and strapping operations to improve the process. This may involve selection of strap and strap width, correct tension for strap, alternatives to securing strap (heat seal), and corner reinforcements to prevent damage to cartons. The root causes of problems will be studied by collecting data and analyzing that data. Optimal solution will be developed. Student team will collect data on the causes for machine stoppage at the packing stage and identify the root causes for cartons not flowing smoothly through the machine. Study will identify the parts of the carton causing the machine stoppage and also the location at which the carton is jammed. Solution will be defined for these problems. Student team will collect data on the causes for labels falling of the finished cartons (label, glue, wrinkled carton, dusty surface, etc) and recommend solution for this problem.

As the above studies progress, the community partner will refine the project definition and provide more specific direction.

#### 4. PV East - EMS

**Faculty Partner:** S. Balachandran  
**Community Partner:** Frito Lay

A student team will study the current operations and flow from bar stock through winding, storage rack, order processing, assembly, test and shipping. The team will generate alternative ways of ensuring PPO flow with traceability of finished parts to raw materials by controlling the lots. Storage methods, handling methods and storage equipment will be evaluated to optimize the flow and material handling. Final recommendations will include optimal way to process orders and scheduling of those orders. Finally the team will generate a list of future senior design projects for industrial engineering teams in the fall of each year.

#### 5. PV East - EMS

**Faculty Partner:** S. Balachandran  
**Community Partner:** Bodine Electric Company

The group will work on lockout and tagout procedures. The community partner will supply a copy of the current lockout and tagout procedures for all equipment. Students will use it at the powerplant during weekly work and correct all errors. Powerplant supervisor will assist the student team in correcting errors and student team will rework the procedures with relevant photographs. They will also develop lockout & tagout procedures for new equipment. A total of about 25 lockout & tagout procedures will be developed for all powerplant equipment in fall 2010 and the rest of the procedures to be developed in fall 2011 will be listed. A project scope and contract will be submitted by Sep. 28, 2010. At least 6 lockout and tagout procedures will be completed each month using MS Word. The powerplant supervisor will correct each procedure and the student team will review the procedures by Dec. 18, 2010.

#### 6. PV East - EMS

**Faculty Partner:** S. Balachandran  
**Community Partner:** UW-Platteville Powerplant

The service-learning project allows the participant to gain experience with people who come from different backgrounds. In addition, the student will provide a useful service in the area of his/her major to the community. A minimum of twenty direct contact hours is required. Students will reflect throughout the experience and provide a summary reflection including all components detailed on the rubric.

#### 7. Heritage Hall - LAE

**Faculty Partner:** Julie Phillips  
**Community Partner:** Dubuque Multicultural Center

The service-learning project allows the participant to gain experience with people who come from different backgrounds. In addition, the student will provide a useful service in the area of his/her major to the community. A minimum of twenty direct contact hours is required. Students will reflect throughout the experience and provide a summary reflection including all components detailed on the rubric.
8 Heritage Hall LAE  Julie Phillips  Newman Center

Students will help build/remodel a home, tutor in a school, and interact with community members through other community services.

9 Heritage Hall EMS  Pat Jinkins  SWLS

Determine allocation of space to better meet the current needs of the groups that use the building. The building was once used as a warehouse and storage facility for many books which were loaned to the various libraries in the system. The use of the facility and the operation of the entire system have changed and the space should be allocated in a more effective manner. The groups will develop a proposed design for the layout of the space in the building to meet the needs of the organization as they exist now and are projected for the foreseeable future.

10 Heritage Hall EMS  Pat Jinkins  Karrmann Library

This group will be working on a layout and design for the second floor of Karrmann Library. As the needs of the students have changed since the facility was completed some 40 years ago, the need to reconsider space allocation and usage is evident. The library staff would like a proposed layout which incorporates suggestions from the student design group as well as considers the known needs of the library. Design within parameters will be expected.

11 WI Room LAE  Bruce Howdle  UW-Platteville Museum

Design and execution of seating for the UW-Platteville Museum.

12a-12f WI Room LAE  Greg Nelson  Design for the Greater Good

DeLaval Swinging Cowbrush in the forefront of the Pioneer Farm’s Dairy Center. The Scharine Group, Inc. is a top dealer of DeLaval equipment in Southwestern Wisconsin and they sell the Swinging Cowbrush. There is not a significant amount of data available on the production benefits of the installation of a Swinging Cowbrush, therefore the Scharine Group, Inc. is interested in collecting data from a field test to use as promotional material in marketing their product. Students conducted analysis of production factors such milk production, udder health, and cow activity between cows that have access to the Swinging Cowbrush and those that do not.

13 WI Room (table only) BILSA  Tera L. Montgomery  The Scharine Group, Inc.

The Katie Vassen memorial garden is located by the Platteville Chamber of Commerce office at 275 Business Hwy. 151. The Chamber plans an additional garden on the other side of the Rountree Branch as part of a memorial to Abby Cullen (a local kindergartner who died last December). A bridge is required to connect the two gardens. The bridge will be the primary memorial to Abby Cullen. This group of senior civil engineering students will work with the Chamber and the families of both Katie Vassen and Abby Cullen to determine the best location for the bridge, to design the bridge, and to provide cost estimates for the project so the Chamber and the families can begin their fundraising.

14 Heritage Hall EMS  Christina J. Curras  Platteville Chamber of Commerce

The student design team will develop two professional websites for two companies. Students will design, build, test, deploy, and maintain (for a semester) such websites for both companies. The final project outcome—the websites—will be used to promote two companies’ products and services.

15a-15b Heritage Hall/Classroom LAE  Andrea Cool  Highland Elementary School and PATHS (Highland Elementary Book Fair Family Event).

The student design team will develop two professional websites for two companies. Students will design, build, test, deploy and maintain (for a semester) such websites for both companies. The final project outcome—the websites—will be used to promote two companies’ products and services.

16a-16b Heritage Hall BILSA  Hao Chen  Carpetland USA

The project goal is to help mechanical engineering students to design, build, and evaluate a device that takes place during the semester-long project of designing and building a device. This device will encourage the child to use it as part of his/her daily routine with the benefit that improved motor skills will occur so that these children can have increased social interaction with the other children in their classes.

This semester projects include: 1) A Vocational Project for Special Needs Children to Recycle Paper into Notebooks, 2) A Light Board to Improve Eye-Hand Coordination for Special Needs Child, 3) An Eye Tracking Device for Special needs child, 4) An Adaptive Catapult Device, and 5) An Adaptive Bicycle for Person with Autism

17a-17e University South EMS  Daryl Logan  Platteville K-12 School System

Can be used for years to produce these UW-Platteville keepsakes. The students in this class will design and manufacture a minimum of 500 pieces and be responsible for supervising, purchasing, machining, assembly, accounting, safety, and project management. This class simulates what their job may be like when they graduate from the Manufacturing Technology Management program. The funds required will cover some of the tooling needed to produce the die (mold) and the die materials. It is expected that the life of the die will be about 10,000 parts over its lifetime. After the class this mold can be used to produce keepsakes for the foundation and university gifts and recruitment initiatives, while helping to fund field trips for Manufacturing Technology students. The mold will also be used in the future in the INDS 3460 Casting I class and INDS 1430 Intro to Metals.

18 WI Room BILSA  Kyle Metzloff & Eric Rimel  UW-Platteville

P farm raising specific steers and pigs for the Dining services. These beefs and pigs will be slaughtered either in Weber processing plant in Cuba City or elsewhere (group choice) then, they will be delivered ground beef and steak (beef) and sausage and bacon (pork) to the Dining Services for students’ consumption. It is important to know that UW-P Dining buys more ground beef for student’s consumption than steak (very expensive for student). With this project, Dining services expect to find a market niche for the steak and minimize the cost for student.

Students enrolled in Agin 4330 are developing a plan to study the feasibility and the profitability of this project. They will work closely with Mr. Mike Ernst, Director of the Dining service at UW-Platteville. Students will team up in groups of 7 depending on the products of interest. This project has two primary goals: 1) to provide students the experience of developing marketing materials for the dining service by targeting fellow students at UW-P (including themselves) who represent possible customers in the Platteville community, 2) provide UW-P Dining services supporting materials for sales opportunity to specific market niche (Faculty and Staff, Platteville community, and the surrounding area). Both Dr. Kiwia-Muzinga (Faculty) and Mr. Mike Ernst (Dining services) will supervise this project.

19 No poster BILSA  Dr. Annie Kiwia-Muzinga  UWP Dining Services


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<th>Project ID</th>
<th>Type of Event</th>
<th>Organizer</th>
<th>Description</th>
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<td>26a-26d</td>
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<tr>
<th>33a-33e</th>
<th>University South</th>
<th>LAE</th>
<th>Rea Kirk</th>
<th>Family Advocates</th>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Working with students and/or families with identified disabilities.</td>
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<tr>
<th>34</th>
<th>Platteville West</th>
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<td>This project gives Professional Development School (PDS) students experience in actual classrooms. PDS students will work with Iowa-Grant Middle and High School faculty and students. The goals are to expand the PDS students’ knowledge and skill bases in the areas of curriculum, team involvement, creation and delivery of lesson plans, organization of thematic units within and in cooperation with grade levels and content areas. An additional goal is to achieve a connection with the youth in the school district while attaining confidence, knowledge, ideas and experience in the classroom.</td>
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<tr>
<th>35</th>
<th>WI Room (table + easel)</th>
<th>LAE</th>
<th>Sue Albom-Yilek</th>
<th>Cloud Forest Schools - Costa Rica</th>
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<td>Participants gained an increased awareness and understanding of effectively engaging students who are of Latino/Latina culture. Students learned about the history, culture, politics, environment and people of Costa Rica through a homestay experience.</td>
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