

Gateway Coalition Freshman Design Project Faculty Team Review - Final Report

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Introduction:

The central focus for the Gateway Coalition is the development of students as emerging professionals. This broad statement emphasizes ideas that have been subordinate to the delivery of technical content and the corresponding increase of student technical knowledge and technical problem solving capability. In addition to these more traditional goals the Gateway Coalition affirms the importance of: leadership; teaming; organization; historical, social and political contexts; as well as business, science and technical pedagogy.

In accordance with the above over-arching goals, the Gateway Coalition innovations emphasize the following "core" skills: analytical skills, communication skills, creative problem-solving, life-long learning, research skills, project management, systems thinking, teamwork skills, and technical competency. The Faculty Team Review team evaluation tool is an example of how many of the Gateway institutions provide feedback to their student teams as to how well a team has succeeded in learning and practicing certain ABET 2000 - related competencies. The tool provided here is what Drexel uses for their Freshman Design Course team projects.

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The purpose of this survey is to afford faculty and their students an opportunity to review and evaluate the acquisition and demonstration of specific knowledge and skills. This review will take place at the conclusion of the *Final Report* phase of the Freshman Design Project. The faculty member's assessment will be recorded on this review form. A copy of the completed evaluation will be given to the student team as additional feedback on their performance.

Please provide the following information:

Course Section	
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Term/Date	
Instructor/Advisor	
Team ID	
Student Name	
Student Name	
Student Name	
Student Name	
Student Name	

Generally, all students on the team should receive the same grade unless the instructor/advisor is aware of circumstances that indicate a student has earned a higher or lower grade than his/her team mates. Note rationale under special comments above.

Final Report

Throughout this phase of the project, the team demonstrated the following CORE knowledge, skills, and abilities:	Not at All	To a Limited Extent	To a Moderate Extent	To a Great Extent	To a Very Great Extent
Analytical Skills Applies logic in solving problems and analyzes problems from different points of view. Translates academic theory into practical applications using appropriate technical techniques, processes, and tools.	1	2	3	4	5
Communication Skills Articulates ideas in a clear and concise fashion and uses facts to reinforce points. Written materials flow logically and are grammatically correct. Plans and delivers oral presentations effectively. Uses technology and graphics to support ideas and decisions.	1	2	3	4	5
Creative Problem-solving Suggests new approaches and challenges the way things are normally done. Develops many potential solutions to problems while discouraging others from rushing to premature conclusions.	1	2	3	4	5
Life-Long Learning Learns independently and continuously seeks to acquire new knowledge. Exceeds basic requirements of an assignment and brings in relevant outside experiences to provide advanced solutions to the problems at hand.	1	2	3	4	5
Project Management Sets goals, prioritizes tasks and meets project milestones. Seeks clarification of task requirements and takes corrective action based upon feedback from others. Creates action plans and timetables to complete assigned work.	1	2	3	4	5
Research Skills Uses computer based and other resources effectively thus acquiring information from multiple sources. Organizes and interprets data appropriately. Designs	1	2	3	4	5

and conducts experiments to validate theories.					
Systems Thinking Understands how events interrelate and demonstrates an ability to take new information and integrate it with past knowledge. Integrates and uses knowledge from various courses, including Engineering, Physics, Mathematics, and Social Sciences, to solve technical problems.	1	2	3	4	5
Teamwork Each member contributes a fair share to the completion of the project. Everyone participates, listens and cooperates with other members. Members share information and help reconcile differences of opinions when they occur.	1	2	3	4	5

Technical Competencies

Throughout this phase of the project, the team demonstrated the following TECHNICAL knowledge, skills, and abilities:	Not App.	Not at All	To a Limited Extent	To a Moderate Extent	To a Great Extent	To a Very Great Extent
Applies mathematics to the analysis of final design.	N/A	1	2	3	4	5
Applies knowledge of science (physics, biology, and/or chemistry) to the analysis of final design.	N/A	1	2	3	4	5
Uses rational, objective reasoning (common sense) to arrive at final design among alternatives.	N/A	1	2	3	4	5
Substantiates performance of final design and its elements in an objective manner and does not make unsubstantiated claims. If appropriate, discusses failures and possible remedies	N/A	1	2	3	4	5
Includes the citation of at least eight information sources in research, 4 of which are from print sources.	N/A	1	2	3	4	5
Assesses and addresses the environmental impacts of the final design in a realistic manner.	N/A	1	2	3	4	5
Assesses and addresses economic, social and political impact of the final design.	N/A	1	2	3	4	5
Develops a realistic cost estimate to implement the design.	N/A	1	2	3	4	5
Addresses questions and issues raised during the oral presentation.	N/A	1	2	3	4	5
Suggests ways to extend and improve design.	N/A	1	2	3	4	5

Comments

