

Florida International University
Department of Mechanical and Materials Engineering

EML 4551 • SENIOR DESIGN ORG • PRESENTATION EVALUATION FORM • FALL 2015

Project 1	Automated Bulk Bag Filler for Titan America
Project 2	Synthesis of Nano-Ceramic Powders
Project 3	Solar Heat Powered Air Conditioner for Electric Trolley
Project 4	Integration of a Solar Thermal Collector System for a FDOT Trolley

Date: _____ Note: Up to **four** projects can be evaluated in this form. Please indicate accordingly.

Category (Score Definition – Taxonomy is given at the end: Adept: 5, Proficient: 4, Apprentice: 3, Novice: 2, Non-responsive: 1)	Score			
	Project 1	Project 2	Project 3	Project 4
Oral communication skills:				
Introduction: Did the speaker begin effectively? Was the purpose and content of this talk made clear?				
Organization: Was the talk well organized into parts that followed in a logical order?				
Voice and Mannerism: Eye contact, confidence, gestures, enunciation, speed, volume, pitch, etc.				
Audio-Visual Aids: Were they appropriate, easily read, and easily understood?				
Conclusion: Did the speaker summarize the main points of the talk? Was the talk ended effectively?				
Response to Questions: Did the response relate to the questions asked?				
Technical knowledge/Engineering principles: Was the speaker knowledgeable of the main points of the topic?				
Technical content: Were the technical contents explained adequately (applying math and physical science, engineering analysis, etc.)?				
Engineering standards: Did the team review applicable, established standards?				
Multi-disciplinary teamwork: Did the team demonstrate multi-disciplinary efforts?				
Teamwork: Did the project demonstrate effective and responsible teamwork (team spirit, group cooperation, effective working relationship)?				
Broader knowledge: Was the team aware of social and environmental issues related to their design?				
Economic aspects: Did the project clearly indicate the economic aspects of the design product?				
Life-long learning: Did the students demonstrate their skills for life-long learning?				
Global awareness: Was the team able to identify, analyze and integrate ethics similarities and differences in multiple markets and cultures?				
Global perspective: Was the team able to conduct an analysis of an engineering problem and its global impact by identifying different factors such as technology, economics and society, and their contributions to the problem and/or solution?				
Global engagement: Were the students willing to work in teams to develop solutions and action plans to address local, global and/or international engineering problems?				
Comments:				

Evaluated by: _____ (Please circle one: Industrial Advisor / Faculty)
(Optional)

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Project 5	Modular Upper Limb Prosthetic for Children
Project 6	Affordable Adjustable Lower Limb Prosthetics for Children
Project 7	ALBA: Autonomous Load-Bearing Assistant Robot
Project 8	Multipurpose Autonomous Buoy

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	Project 5	Project 6	Project 7	Project 8
Oral communication skills:				
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(Optional)

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EML 4905 • SENIOR DESIGN • PRESENTATION EVALUATION FORM • FALL 2015

Project 9	Digital Photolithography System Utilizing Machine Vision and Motion Control
Project 10	Vertical Axis Wind Turbine for Harvesting Energy on Highways
Project 11	Hand Pump Water Filtration System
Project 12	Desalinization of Seawater by an Energy Producing Steam Cycle

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	Project 9	Project 10	Project 11	Project 12
Oral communication skills:				
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Project 13	Flow Control Separation with Plasma Actuators
Project 14	Stirling Engine to Pump Water in Solar Collectors
Project 15	Hydro-Blade: Design of a Portable and Inexpensive Low Head Hydro-Generator
Project 16	NASA RMC: Thorin I: Black Point Excavator

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	Project 13	Project 14	Project 15	Project 16
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Project 17	IEEE SoutheastCon Hardware Competition Robot
Project 18	CHIMAERA: M.A.T.E. Remotely Operated Vehicle (ROV)
Project 19	ROARsat: NASA FUNsat Competition
Project 20	Shell Eco-Marathon: Chassis/Frame Design and Manufacturing

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	Project 17	Project 18	Project 19	Project 20
Oral communication skills:				
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Project 21	2016 Shell Eco-Marathon: Exterior Body, Steering, Handling and Engine
Project 22	2016 Formula SAE Powertrain Optimization
Project 23	Design of the Formula SAE Race Car Suspension System

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	Project 21	Project 22	Project 23	
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Taxonomy for ME Senior Design Project Evaluation

Scale	Performance	Description
5	Adept	Displays creative application of knowledge to fulfill requirements; sufficiently defends and interprets required information
4	Proficient	Adequately applies knowledge of, and analyzes, required information; makes inferences based on supporting evidence
3	Apprentice	Clearly displays understanding through explanations and examples; begins to apply knowledge of this requirement by determining best solutions
2	Novice	Displays knowledge and basic understanding of requirement; identifies and superficially describes required information
1	Non-responsive	Does not appropriately respond to requirement or requested information; no knowledge or understanding indicated