PASCOR

SAMPLE ASSESSMENT TOOLS

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1. MEEP Industry Survey
2. MEEP Student Survey
3. ADMI 3100 Teamwork Experiences Assessment Form
4. ADMI 3100 Written Report Assessment
5. ADMI 3100 Oral Presentation Assessment
6. ADMI 3100 Peers Evaluation Form
7. ADMI Lecturer Evaluation Form
8. MEEP GENERIC Course Evaluation and Assessment of Skills and Knowledge

Manufacturing Engineering Education Partnership
MEEP
INDUSTRY SURVEY

The Learning Factory is a new practice based curriculum and physical facilities for product realization that has been developed at three institutions: Penn State, the University of Washington, the University of Puerto Rico at Mayagüez in collaboration with Sandia National Labs. Its goal is to provide an improved educational experience that emphasizes the interdependency of manufacturing and design in a business environment. The key element in this approach is active learning - the combination of curriculum revitalization with coordinated opportunities for application and hands on experience.

This questionnaire has been designed to assess the performance and products of this program. Please answer it to the best of your knowledge.

Name:
_____

Company:
_____

Partner University:
[ ] UPR-M [ ] PSU [ ] UW [ ] Other_____

Your Involvement with the program:
[ ] Member of Industrial Partner Board [ ] Expert in the classroom [ ] Involved with students projects
[ ] Other_____

Instructions:

The following items reflect some of the ways in which the Manufacturing Engineering Partnership (MEEP) can be described. Please fill in the numbered circle which indicates THE DEGREE TO WHICH YOU AGREE that each item is descriptive of the experiences you were exposed to and provided by the program. If you have no information or feel an item does not apply, please fill in the N/A circle.

The program allowed students to practice engineering science fundamentals in the solution of real problems.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Professional communications skills were enhanced.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Team work skills were enhanced.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The partner schools learned from each other's experience.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Resources and ideas were shared, avoiding redundant efforts.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Real life problems were provided.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

New technologies for communication were utilized on curriculum content.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The local Industrial Advisory Board (IAB) provided quality strategic and operation guidance to the local institution.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The local IAB supported MEEP's activities providing financial and/or non financial resources.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

There was good communication between industrial sponsors and the institution.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Each institution provided the IAB the right information in a timely fashion.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The MEEP's Industrial Advisory Board (IAB) evaluated the overall progress of the program.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The partnership reported progress and activities related to participation in curriculum development.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The MEEP's IAB provided support in actions/activities that are relevant to the program.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The partnership reported progress and activities related to participation in the classroom teaching.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Students completing the MEEP program are more useful to our industry.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

My Industry and company is more likely to hire a MEEP trained student than a traditionally trained student.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Would you encourage other companies to participate in the program and coalition? Why?
_____

What can be improved with MEEP?
_____

Comments:
_____

Manufacturing Engineering Education Partnership
MEEP
STUDENT SURVEY

The Learning Factory is a new practice based curriculum and physical facilities for product realization. Its goal is to provide an improved educational experience that emphasizes the interdependency of Manufacturing and design in a business environment. The key element in this approach is active learning - the combination of curriculum revitalization with coordinated opportunities for application and hands on experience.

University:
[ ] UPR-M [ ] PSU [ ] UW [ ] Other_____

Major:
[ ] Mechanical Eng. [ ] Chemical Eng. [ ] Industrial Eng.
[ ] Other_____

[ ] Graduate student [ ] Undergraduate student

Involvement with MEEP:
[ ] Taken 1 course [ ] Taken more than 1 course [ ] Research Assistant
[ ] Other_____

The program courses at your institution were offered as: (Check all that apply)
[ ] as part of a minor [ ] as electives [ ] as part of a degree option [ ] required for the major
[ ] Other_____

The courses were:
[ ] interdisciplinary [ ] engineering students only [ ] students from only one department

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Instructions:

The following items reflect some of the ways in which the Manufacturing Engineering Partnership (MEEP) can be described. Please fill in the checkbox which indicates THE DEGREE TO WHICH YOU AGREE that each item is descriptive of the experiences you were exposed to and provided by the program. If you have no information or feel an item does not apply, please fill in the N/A checkbox.

The program allowed you to practice engineering science fundamentals in the solution of real problems.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Professional communications skills were emphasized.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Team work skills were emphasized.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Case studies were extensively used in the courses.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Active learning activities were extensively used in the courses.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Computer technologies were extensively used in the classroom.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Hands-on engineering experiences were extensively used in the classroom.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The courses were set in an industrial like setting.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The MEEP courses you took had more design/manufacturing content than other similar courses at your institution.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The Learning Factory (LF) provided you with a fully integrated activity center for the creation and implementation of products and processes.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The LF facility was well equipped to give me real life experience in "state of the art" processes.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The LF facility was professionally staffed to allow me to experiences the product/process realizations.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

I feel that my participation in the MEEP Program has improved my career opportunities.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

I learn better from classroom lecture then hands-on laboratory experience.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The MEEP courses provided more to my professional development than typical courses.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

My MEEP course(s) were more fun than my typical engineering courses.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

Because of the MEEP courses, I have a much better understanding of what engineering is.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

As a result of this course, I am more confident in my ability to solve real-life problems.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

As a result of this course, I feel more confident in my abilities to process information, and teach myself new things, without the aid of an instructor.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

The MEEP instructors were superior to my typical university instructors.
[ ] Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ] N/A

COMMENTS:

University of Puerto Rico
Mayagüez Campus
ADMI 3100 - TECHNOLOGY BASED ENTREPRENEURSHIP

TEAMWORK EXPERIENCES ASSESSMENT FORM

Please answer the following questions regarding your work as a team for the completion of the required task.

TASK(S): PRODUCT DESIGN, DECISION-MAKING

1. In chronological order, list what your team did during the design phase. Explain how tasks were distributed, how decisions were made.

2. What facilitated the decision-making process?

3. What was your contribution to the team when decisions had to be taken?

4. What do you think you would like to do differently the next time when working in a team?

NAME_____TEAM_____

University of Puerto Rico
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ADMI 3100 - TECHNOLOGY BASED ENTREPRENEURSHIP

WRITTEN REPORT ASSESSMENT

Name_____

Team_____date_____

Evaluator_____

Report Title_____

CATEGORY	ASSESSMENT
Cover, title page, table of contents, list of figures, etc.	/10
Abstract	/15
Introduction*	/10
Body*	/20
Conclusions/recommendations*	/15
Language/grammar/clarity	/05
Figures/tables	/05
Bibliography/references	/05
GENERAL	/15
TOTAL	**/100**

* Considerations for the FINAL REPORT ONLY:

- Market definition/product need
- Goals & objectives of design
- Work/action Plan
- Knowledge & application of concepts
- Engineering method
- Other

COMMENTS:

University of Puerto Rico
Mayagüez Campus
ADMI 3100 – TECHNOLOGY BASED ENTREPRENEURSHIP

ORAL PRESENTATION ASSESSMENT

Name of the Company: _____

Team _____ Date _____ Evaluator _____

Part 1 - PRESENTATION

CATEGORY	**0**	**1**	**2**	**3**	**4**	**5**
Organization						
Level						
Knowledge of Material						
Time						
Delivery/Transmission of Material						
Quality of Language						
Order						
Management of Questions						
Ability to Discuss Project and Methodology						
Personal Appearance/Manners						
TOTAL						

PART 2 - CONTENTS

CATEGORY	**0**	**1**	**2**	**3**	**4**	**5**
Introduction/Background						
Body						
Conclusion						
TOTAL						

Part 3 – Overall

CATEGORY	**0**	**1**	**2**	**3**	**4**	**5**
Overall Quality of the Presentation						
Perception of Potential Success in a Competitive Forum						
Perception of Potential in Achieving Results						
TOTAL						

GRAND TOTAL						

COMMENTS:

University of Puerto Rico
Mayagüez Campus
ADMI 3100 – TECHNOLOGY BASED ENTREPRENEURSHIP

PEER EVALUATION FORM

Name of the Company: _____

Team _____ Date _____

Evaluator (VOLUNTARY) _____

Please describe the effort of your peers so far.

Use the following code for evaluation:

3 Excellent job
2 Did his/her share
1 We had to force him/her to work
0 Did not work at all

Write the name of your team members in the table below and evaluate them.

Student Name	**Evaluation (From 0 to 3)**	**Evaluation (From 0 to 100%)**

Comments:

University of Puerto Rico
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ADMI 3100 – TECHNOLOGY BASED ENTREPRENEURSHIP

PROFESSOR/LECTURER EVALUATION FORM

Lecture Title: _____ Speaker: _____ Date:_____

Please evaluate the organization, contents and effectiveness of the lecture, using the following scale: **1 = low, 5 = high**.

CATEGORY/ITEM	LOW 1	2	3	4	HIGH 5
Organization					
Overall Quality					
Clarity in Exposure					
Comprehension of Material Presented					
Adequacy of Materials, Illustrations, Examples					
Teaching Methodology					
Knowledge of Subject					
Ability to Transmit Knowledge					
Explanations and Illustrations					
My ability to use this New Information					
My Overall Understanding of the Subject					

Evaluator (voluntary): _____

Please answer briefly the following questions and please feel free to add any comments on the back.

1. What did you like about the lecture?

2. What did you dislike?

3. Suggestions to improve the lecture?

MANUFACTURING ENGINEERING EDUCATION PARTNERSHIP
MEEP
University of Puerto Rico
Mayagüez Campus

COURSE EVALUATION
And
ASSESSMENT OF SKILLS and KNOWLEDGE

Course: _____
Instructor:_____

The purpose of this assessment is:

- to determine your perception of mastery/level of knowledge and skills developed by the students in this course, and
- to establish the effectiveness of lectures and experiences, as well as of the logistics used.

The results of this assessment will help the instructor in charge of the course to better plan and adjust the course's agenda in the future.

PART I: GENERAL OBJECTIVES AND SKILLS

Directions:
Using the scale below, please evaluate (*) your perception of the mastery of skills and experience the students developed in this course in the areas specified.

N: no skills/no experience
R: rudimentary skills/very little experience
F: functionally adequate skills/some experience
A: advance skill/extensive experience

area	*
skill 1	
skill 2	
objective 1	
objective 2	

PART II: CONTENT, LECTURES AND EXPERIENCES

Directions:
In this part, please indicate (*) your perception of the lectures and activities' effectiveness, using the following scale:

0: not effective; would eliminate
1: moderately effective; significant changes (specify)
2: effective; minor changes (specify)
3: very effective; would not change

module/lectures	*	comments
Module 1: TITLE		
Module 2: TITLE		
Module n: TITLE		

PART III: COURSE LOGISTICS

Directions:
Please indicate (*) how you feel regarding the various aspects designed for the course, using the following scale:

0: inadequate; disliked, needs re-engineering!
1: somewhat adequate; needs enhancement
2: adequate; minor changes
3: adequate; no change

area	*	comments
Number of meetings		
Kinds of assessment techniques		
Requirements		
Number of lectures		
Number of plant trips		
Topics covered		
Course coordination		
Other:		

Would you recommend this course to other students? Explain.

Do you think your expectations were met?
YES/NO. Explain.

Suggestions:

Your overall rating of the course: _____/10.