

2013-14 Assessment Activities and Results (both Programs)

Assessment Activities

The Department of Industrial and Manufacturing Engineering implemented the new ABET Assessment Plan starting 2013-2014. In accordance with this plan, three Student Outcomes were assessed. These outcomes, along with the methods of assessment and places where the assessment data were collected, are shown in the table for both IME programs:

Assessment activities and tools used in 2013-14

Student outcome	Where data are collected	Assessment tools		Program
		Direct	Indirect	
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	IME485	Examination/test	Course student survey	IE&M
	IME431	Examination/test	Course student survey	MfgE
	IME489	Capstone scoring by faculty	Capstone student survey	IE&M & MfgE
		Capstone scoring by industry panel		
GDC		Student exit survey	IE&M & MfgE	
f) an understanding of professional and ethical responsibility	IME456		Course student survey	IE&M & MfgE
	IME489	Capstone scoring by faculty	Capstone student survey	IE&M & MfgE
		Capstone scoring by industry panel		
	GDC		Student exit survey	IE&M & MfgE
i) a recognition of the need for, and an ability to engage in life-long learning	IME311		Course student survey	IE&M & MfgE
	IME489	Capstone scoring by faculty	Capstone student survey	IE&M & MfgE
	GDC		Student exit survey	IE&M & MfgE

The specific direct and indirect assessment tools and the rubrics used to assess each student outcome are discussed in details in Appendix B of the ABET Assessment Plan.

Assessment Results

Results for student outcomes (c), (f), and (i) are reported separately in the following tables. All supporting documentation will be available at the time of the ABET visit. These results will be presented to faculty at the Faculty Retreat which will be held in August of 2014. The review and evaluation of these results by the faculty who are responsible for covering these outcomes (see the corresponding Curriculum Maps in Appendix B of the ABET Assessment Plan) is planned for the 2014-2015 academic year as a part of the continuous improvement process.

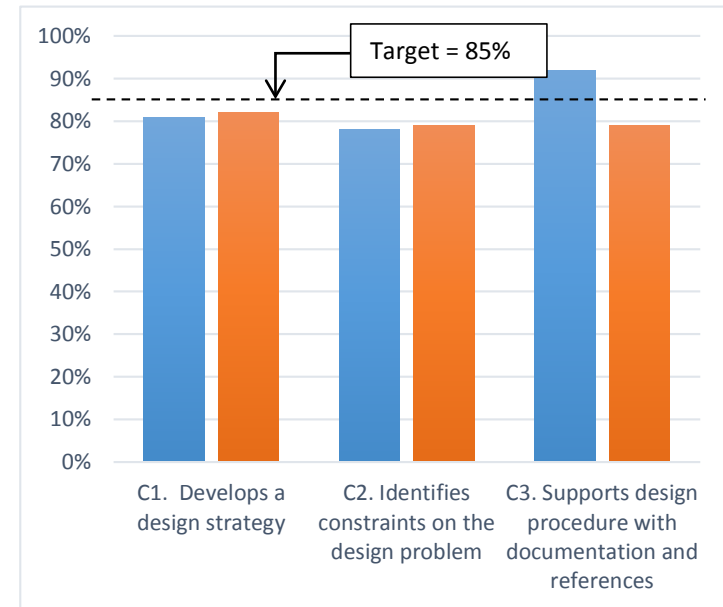
Student outcome (c): an ability to design a system, component, or process

Student outcome (c): Performance indicators and assessment methods

Performance indicator	Where data are collected	Assessment instruments		Target
		Direct	Indirect	
C1. Develops a design strategy based on project and client needs and constraints.	IME485/431	Examination/test	Course student survey	85%
	IME489	Capstone scoring by faculty	Capstone student survey	
		Capstone scoring by industry panel		
GDC		Student exit survey*		
C2. Identifies constraints on the design problem, and establishes criteria for acceptability and desirability of solutions	IME485/431	Examination/test	Course student survey	85%
	IME489	Capstone scoring by faculty	Capstone student survey	
		Capstone scoring by industry panel		
GDC		Student exit survey*		
C3. Supports design procedure with documentation and references	IME485/431	Examination/test	Course student survey	85%
	IME489		Capstone student survey	
	GDC		Student exit survey*	

Student outcome (c): Assessment results

Performance indicator	Average, IE&M	Average, MfgE	Target
C1. Develops a design strategy based on project and client needs and constraints	81%	82%	85%
C2. Identifies constraints on the design problem, and establishes criteria for acceptability and desirability of solutions	78%	79%	85%
C3. Supports design procedure with documentation and references	92%	79%	85%



Student outcome (f): an understanding of professional and ethical responsibility

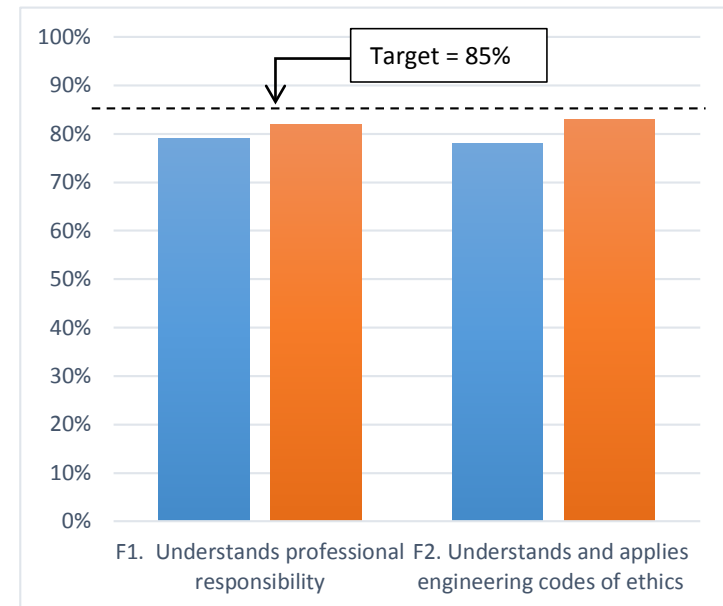
Student outcome (f): Performance indicators and assessment methods

Performance indicator	Where data are collected	Assessment instruments		Target
		Direct	Indirect	
F1. Understands professional responsibility and applies related issues to practical situations	IME456		Course student survey	85%
	IME489	Capstone scoring by faculty*	Capstone student survey	
		Capstone scoring by industry panel*		
GDC		Student exit survey*		
F2. Understands and applies engineering codes of ethics to practical situations	IME456		Course student survey	85%
	IME489	Capstone scoring by faculty*	Capstone student survey	
		Capstone scoring by industry panel*		
GDC		Student exit survey*		

* No performance indicators used, outcome assessed as a whole

Student outcome (f): Assessment results

Performance indicator	Average, IE&M	Average, MfgE	Target
F1. Understands professional responsibility and applies related issues to practical situations	79%	82%	85%
F2. Understands and applies engineering codes of ethics to practical situations	78%	83%	85%



Student outcome (i): a recognition of the need for, and an ability to engage in life-long learning

Student outcome (i): Performance indicators and assessment methods

Performance indicator	Where data are collected	Assessment instruments		Target
		Direct	Indirect	
I1. Participates in learning activities out-side of the classroom	IME311		Course student survey	80%
	IME489	Capstone scoring by faculty*	Capstone student survey	
	GDC		Student exit survey*	
I2. Recognizes how the college experience contributes to understanding the need to continuously update professional skills	IME311		Course student survey	80%
	IME489	Capstone scoring by faculty*	Capstone student survey	
	GDC		Student exit survey*	

* No performance indicators used, outcome assessed as a whole

Student outcome (i): Assessment results

Performance indicator	Average, IE&M	Average, MfgE	Target
I1. Participates in learning activities out-side of the classroom	77%	74%	80%
I2. Recognizes how the college experience contributes to understanding the need to continuously update professional skills	78%	79%	80%

