

**(a) Apply knowledge of math, science, and engineering**

**Previous Curriculum Action Review Summary**

- As suggested for 2008, new faculty have undergone mentoring and training for the classroom and curriculum interfaces.
- Student assessment of performance continues to decline. The new faculty integration and training is expected to show improved student performance so no Curriculum Action is recommended.
- Faculty training and mentoring is an ongoing departmental process and will no longer be mentioned specifically.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
N		

**Previous Assessment Process Action Review Summary**

- As suggested for 2007, new faculty have undergone training in the program's Continuous Improvement assessment processes and practices.

**Assessment Process Review Summary**

- Student performance continues to decline. This may be the result of the assessed cohort's academic variation with the academically superior 2005/6 cohort. This suggests the possible normalization of outcome assessment results with cohort GPA's; however, that data is not readily available to the program from institutional databases.
- The most likely cause for performance decline is the recent turnover in program faculty.
- A watch of performance is warranted. If improvement is not seen in the coming year, action will be needed.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
W	Senior Exit Exam	Determine if the Senior Exit Exam has less variation from year to year and how it compares with other metrics results.
C	Continued Faculty Training and Mentoring	New faculty are being trained in the program's Continuous Improvement assessment processes and practices.

**(b) Design and conduct experiments analyze and interpret data and information**

**Previous Curriculum Action Review Summary**

- There were no 2007 Curriculum Actions stated for 2008.

**Curriculum Review Summary**

- No Curriculum Action is needed.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
N		

**Previous Assessment Process Action Review Summary**

- No actions were needed. It was suggested to watch for small number of instruments in the next year (odd years).

**Assessment Process Review Summary**

- No actions needed.
- A satisfactory number of instruments are used with good agreement.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
N		

**(c) Optimally select material and design materials treatment and production processes**

**Previous Curriculum Action Review Summary**

- As suggested for 2008, new faculty have undergone mentoring and training for the classroom and curriculum interfaces.
- Students are performing well.
- There are no needed Curriculum Actions for 2009.

- Faculty training and mentoring is an ongoing departmental process and will no longer be mentioned specifically.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
N		

**Previous Assessment Process Action Review Summary**

- As suggested for 2007, new faculty have undergone training in the program's Continuous Improvement assessment processes and practices.
- Faculty training in the Continuous Improvement Process is now an ongoing departmental process and will no longer be mentioned specifically.

**Assessment Process Review Summary**

- Students are performing well.
- There are no needed Assessment Process Actions for 2009.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
C	Continued Faculty Training and Mentoring	New faculty are being trained in the program's Continuous Improvement assessment processes and practices.

**(d) Function well on teams**

**Previous Curriculum Action Review Summary**

- As suggested for 2007, new faculty have undergone training in the program's Continuous Improvement assessment processes and practices.
- Faculty training in the Continuous Improvement Process is now an ongoing departmental process and will no longer be mentioned specifically.

**Curriculum Review Summary**

- Student performance continues to decline. This may be the result of the assessed cohort's academic variation with the academically superior 2005/6 cohort. This suggests the possible normalization of outcome assessment results with cohort GPA's; however, that data is not readily available to the program from institutional databases.
- The most likely cause for performance decline is the recent turnover in program faculty.
- A watch of performance is warranted. If improvement is not seen in the coming year, action will be needed.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
W	Senior Exit Exam vs. Other Instruments	Determine if the Senior Exit Exam agrees with the other Instruments.

**Previous Assessment Process Action Review Summary**

The Assessment Process Action recommended for 2008 was that new faculty would be trained in the program's Continuous Improvement assessment processes and practices. This has been adopted as an ongoing departmental process and will no longer be mentioned specifically.

**Assessment Process Review Summary**

The assessment process for Outcome (d) has evolved over the last several years from an assessment largely by faculty to one largely by the students through surveys. The primary concern at this time is whether student's opinions concerning the workings of the design teams are a legitimate measure of teaming skills and the proper balance between teaming knowledge and skills. This will be watched and further considered over 2009.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
W	Teaming Experience vs. Skills	Are the students knowledgeable about teaming skills and do teaming experiences measure this?

**(e) Identify, formulate, and solve engineering problems**

**Previous Curriculum Action Review Summary**

- No Curriculum Actions were recommended.
- It was recommended to watch student performance in 2008 because of high GPA of 2007 graduating seniors.

**Curriculum Review Summary**

- Student performance remains at a consistently high level for Outcome (e).

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
N		

**Previous Assessment Process Action Review Summary**

- There was no previous Assessment Process Action needed for 2008.

**Assessment Process Review Summary**

- Assessment process for Outcome (e) seems to be working well.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>

**(f) Know professional and ethical responsibilities and practices**

**Previous Curriculum Action Review Summary**

No items specific to Curriculum Action Review for ABET criterion (f) were noted.

**Curriculum Review Summary**

The level of the students was very good. The number of assessments was also quite good.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>

N		
---	--	--

**Previous Assessment Process Action Review Summary**

No items specific to Assessment Process Action Review for ABET criterion (f) were noted.

**Assessment Process Review Summary**

While the number of instruments was good, few students took the FE exam. As the FE exam provides direct assessment of material relevant to Outcome (f), more students should be encouraged to take the FE Exam.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
-------------	--	--

N		
---	--	--

**(g) Communicate effectively**

**Previous Curriculum Action Review Summary**

Watch to see if faculty change is yielding lower values by reduced writing emphasis (viz. exit Han and Stone) and/or through different faculty member's scoring variation.

**Curriculum Review Summary**

•It appears that the curriculum is performing adequately. Generally lower scores were reported for the design fair presentations than for the other instruments that were reported.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
-------------	--------------------------------	--

N	No action required	
---	--------------------	--

**Previous Assessment Process Action Review Summary**

•Watch to see if faculty change is yielding lower values by reduced writing emphasis (viz. exit Han and Stone) and/or through different faculty member's scoring variation. Assure that metrics are reviewed for scoring communication.

**Assessment Process Review Summary**

This outcome utilized six different instruments, and thus, is very robust in terms of the amount of data collected. Triangulation was possible because of the relatively large number of instruments that were used.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
-------------	--	--

N	No action required	
---	--------------------	--

**(h) Know engineering's global societal context**

**Previous Curriculum Action Review Summary**

No Curriculum Action Review actions were suggested for outcome (h).

• A Curriculum Action Review watch item was given in 2007 regarding student performance.

**Curriculum Review Summary**

Student performance was much improved in 2008. The number of assessments remained high.

• Despite the improvements in performance, the watch item will be continued to 2009 to ensure that 2008 was not a fluke.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
-------------	--------------------------------	--

W	Student Performance	Student performance has recently improved but a watch is needed to ensure that this improvement is due to the curriculum and not a fluke performance.
---	---------------------	---

**Previous Assessment Process Action Review Summary**

No Curriculum Action Review actions were suggested for outcome (h).

• A Curriculum Action Review watch item was given in 2007 regarding student performance.

**Assessment Process Review Summary**

In general the Assessment Process appears to be working well.

• The watch action is still felt to be warranted, as one year of data is insufficient to determine whether or not the new faculty initiatives are working.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
-------------	--	--

W	Student Performance	Student performance has recently improved but a watch is needed to ensure that this improvement is due to the curriculum and not a fluke performance.
---	---------------------	---

**(i) Engage in life-long learning**

**Previous Curriculum Action Review Summary**

No action needed.

**Curriculum Review Summary**

The outcome scores continue to remain high.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
-------------	--------------------------------	--

N		
---	--	--

**Previous Assessment Process Action Review Summary**

Seek Training on Cognitive Assessment for life-long Learning.

**Assessment Process Review Summary**

Nothing to report.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
-------------	--	--

N		
---	--	--

**(j) Know contemporary issues**

**Previous Curriculum Action Review Summary**

- Improved Instruction on Outcome (j) Contemporary Issues was warranted.

**Curriculum Review Summary**

- Two instruments were used to assess this outcome.
- A broader number of instruments would increase the robustness and depth of the assessment.
- Two different assessors (student self-assessment and a keyed assessment) were utilized.
- An average score of 4.24 is indicative that students are performing well on this Outcome.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
-------------	--------------------------------	--

W	Watch use of curricular instruments.	Continue to monitor utility of the new instruments that have been developed to measure this Outcome.
---	--------------------------------------	--

**Previous Assessment Process Action Review Summary**

- Continue to strengthen the Contemporary Issues Module and embedding in MET 321 class in the Spring 2009.

**Assessment Process Review Summary**

- The instrument inventory needs to be expanded so that triangulation results. Otherwise the assessment process appears to be performing adequately.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
-------------	--	--

W	Instrument inventory watch	Continue to watch the instruments utilized and if need be expand the instrument inventory to measure this Outcome.
---	----------------------------	--

**(k) Use engineering techniques, skills, and tools**

**Previous Curriculum Action Review Summary**

No action needed.

**Curriculum Review Summary**

The outcome review scores remained unchanged and the range values were about the same as the previous year.

<i>Code</i>	<i>Curriculum Action Title</i>	<i>Curriculum Action Brief Description</i>
-------------	--------------------------------	--

N		
---	--	--

**Previous Assessment Process Action Review Summary**

No action was needed.

**Assessment Process Review Summary**

No action needed.

<i>Code</i>	<i>Assessment Process Action Title</i>	<i>Assessment Process Action Brief Description</i>
-------------	--	--

N		
---	--	--