



2014-2015 Assessment Cycle

Key Findings

Finding per Measure

Applied Mechanical Technology AAS Program Outcome Set

Develop knowledge of traditional manufacturing techniques and how they relate to basic engineering concepts

Demonstrate competency in design and manufacturing of mechanical components

▼ **Measure:** Mechanical Design & Fab [NETS-150] and Lab [NETS-151] - Graded assignment
Course level; Direct - Student Artifact

Details/Description:

Acceptable Benchmark: 75% of students will achieve a grade of C or better on written test and final project

Implementation Plan (timeline): Collection: annually at end of fall semester beginning AY 2013/2014

Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Mechanical Design & Fab [NETS-150] and Lab [NETS-151] - Graded assignment

Summary of Findings: (N=9) 100% of students earned a grade of C or better in Mechanical Design & Fabrication test and project. All students were evaluated on the quality of projects as defined by the specifications required in the assessment of performance category established by program faculty, including final grades (i.e. all grades were A, A-, B+, B, C+). One student took MFET-105 instead of NETS-151 and earned B. One student withdrew all courses he took during 2145.

Results: Acceptable Benchmark Achievement: Exceeded

Recommendations : N/A

Reflections/Notes : N/A

Preparation for entry to CAST manufacturing and mechanical engineering technology programs

Demonstrate competency in core technical courses needed to meet admissions requirements into CAST manufacturing and mechanical engineering

▼ **Measure:** Complete Core Courses and Change of Program Form

Details/Description: Course grades and Change of Program form
Complete any four of the following courses and the Change of Program Form.
Fundamentals of Engr. [NETS-101]
Foundations of Mat'l [NETS-110]
Foundations of Mat'l Lab [NETS-111]
Manufacturing Process [NETS-120]
Mechanical Design & Fab [NETS-150]
Lab Mechanical Design & Fab [NETS-151]

Acceptable Benchmark: 75% of students completing the AMT degree will achieve a grade of C or better in all four core courses and be accepted into CAST mechanical or manufacturing engineering technology programs.

Implementation Plan (timeline): Collection: annually at end of spring semester beginning AY 2013/2014

Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Complete Core Courses and Change of Program Form

Summary of Findings: During the academic year, two students left the program. However, the remaining students performed well. The findings are:

Fundamentals of Engr. [NETS-101] = 1 A, 1 A-, 3 B+, 5 B, 1 B- and 1 C+

Foundations of Mat'l [NETS-110] = 2 A, 6 A-, 2 B+, 1 B, 1 C and 1 D

Foundations of Mat'l Lab [NETS-111] = 2 A, 1 A-, 1 B+, 6 B, 1 B- and 1 C+

Manufacturing Process [NETS-120] = 1 A, 1 A-, 3 B, 1 B- and 2 C+ (1 student took RIT course and passed)

Mechanical Design & Fab [NETS-150] = 2 A-, 3 B+, 2 B, 1 C+ and 1 W

Lab Mechanical Design & Fab [NETS-151] = 7 A and 1 W (1 student took RIT course and passed)

The summary of this finding illustrated that 92% of the students received a grade of C or better.

Results: Acceptable Benchmark Achievement: Exceeded

Recommendations : N/A

Reflections/Notes : N/A

Success in course work required in CAST mechanical or manufacturing engineering technology programs

Demonstrate competency in analysis and design of structures and machine components

▼ **Measure:** Strength of Materials [MCET-221] - Course grade
Course level; Indirect - Other

Details/Description:

Acceptable Benchmark: 75% of students will achieve a grade of C or better

Implementation Plan (timeline): Collection: annually at end of spring semester beginning AY 2014/2015

Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Strength of Materials [MCET-221] - Course grade

Summary of Findings: (N=2) Two students earned A, therefore this exceeds the benchmark ratings.

Results: Acceptable Benchmark Achievement: Exceeded

Recommendations : N/A

Reflections/Notes : There is a persistence issue with respect to MCET-221 Strength of Materials is regarding PHYS-111 College of Physics as a per-req course that contributes to a small N.

Success in CAST BS mechanical or manufacturing engineering technology programs

Earn BS degree in CAST mechanical or manufacturing engineering technology

▼ **Measure:** Graduation Rates

Details/Description:

Acceptable Benchmark: For AMT graduates who transfer to a CAST engineering program, retention and graduation rates will not be significantly different than those of other transfer students

Implementation Plan (timeline): Collection: annually at end of spring semester beginning AY 2016/2017

Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Graduation Rates

Summary of Findings: Between Fall 2014 and Spring 2015, we had 3 graduates earning a BS degree.

Results: Acceptable Benchmark Achievement: Met

Recommendations : The program is continuing to evolve and number of graduates are starting to increase slowly. For instance, there is an increase in number of graduates from 0 to 3 since the semester format begins.

Reflections/Notes :

Achieve student satisfaction with AMT courses and program

Graduates of the AMT program will indicate satisfaction with courses and program

▼ **Measure:** Student Satisfaction Survey Instrument
Program level; Indirect - Survey

Details/Description:

Acceptable Benchmark: 75% of students graduating will indicate "satisfaction" with AMT courses and the program on the Student Satisfaction Survey Instrument.

Implementation Plan (timeline): Collection: annually at end of spring semester beginning AY 2014/2015

Key/Responsible Personnel: Data collected by Assessment Coordinator

Findings for Student Satisfaction Survey Instrument

Summary of Findings: Historically, AMT received a good response ratings was either agree or strongly agree with the overall question of being satisfied with the program. However, this is the first year of the semester format.

Results: Acceptable Benchmark Achievement: Not Met

Recommendations : The recommendation is to ask when the first AMT graduate under the semester format; we will report the findings presumably next year.

Reflections/Notes : N/A

Overall Recommendations

The findings indicated that the program is meeting most of the expectations, however, it is early to make a recommendation.

Overall Reflection

The issue regarding PHYS-111 College of Physics is a main indicator that contributes to a small N. However, the assessment shows healthy results for AMT via semester format.

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