2016-2017 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

Student Learning Outcome: 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:	For the AY 2016/17, (N=5) 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, B-, C+,C, and C-). Redefined 'C' as 75.0% or higher.
Results:	Acceptable Benchmark Achievement: Exceeded

Recommendations :	The newly redefined "C" is 75.0%, not 70.0% as it were in yesteryears, thus, the recommendation is to align with our future (revising) articulation agreement.
Reflections/Notes :	

Preparation for entry to CAST manufacturing and mechanical engineering technology programs

Student Learning Outcome: 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:

Newly Redefined “C” as 75.0% or higher (equivalent to C), during the AY 2016/17, there were ten students. Three students left the program (i.e., suspension, withdraw, and discontinue), and two students are still at NTID/RIT in different program codes (PBENG and NICS). At the end of the academic year, we have five actual AMECHTEC students. However, many students performed well. Depending on the semester, the findings are:

Semester 2161
Fundamentals of Engr. [NETS-101] = 1 A, 1 A-, 2 B+, 1 B, 3 B-, 1 C-, 1 D, and 1 F. 73% of the students performed C or better.

Foundations of Mat’l [NETS-110] = 1 A-, 3 B, 1 D, 1 F, and 2 WD.
50% of the students performed C or better.

Foundations of Mat’l Lab [NETS-111] = 1 A, 1 B+ and 3 C-, 1 F and 2 WD. 25% of the students performed C or better.

Semester 2165
Manufacturing Process [NETS-120] = 1 A, 1 B+, 1 B-, and 1 C-. 75% of the students performed C or better.

Mechanical Design & Fab [NETS-150] = 1A, 1 A-, 1 B, 1 C+, and 1C. 100% of the students performed C or better.

Lab Mechanical Design & Fab [NETS-151] = 2 A, 1 A-, and 1 B-. 100% of the students performed C or better.

The summary of this finding illustrated that 50% of the students received a grade of C or better during their first semester in the program. However, as attrition may be an issue, but the true AMECHTECH students stayed and the second semester illustrated improvement to 92% of the students earned a grade of C or

	better.
Results:	Acceptable Benchmark Achievement: Not Met
Recommendations :	Strongly recommend to increase tutoring availability for this audience and improve academic advising (see reflection notes).
Reflections/Notes :	It is important to acknowledge that students did not have a positive first year, first semester experience under this program. Historically, the retention rate often is stronger as cohorts move through the program. First semester is always a challenge, I do not have hard resources to provide more tutoring (i.e., workload issues) or appropriate academic advising (i.e., counselors vs. technical faculty) is my biggest pet peeves factors.

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

Student Learning Outcome: 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:	Recall the newly redefined "C" is 75.0%, (n=7) during the AY 2016/17, All three students who took MCET 221 during the academic year earned a grade of C or better. It exceeds the benchmark ratings.
Results:	Acceptable Benchmark Achievement: Exceeded
Recommendations :	N/A
Reflections/Notes :	N/A

Success in CAST BS mechanical or manufacturing engineering technology programs

Student Learning Outcome: 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 2161 and Spring 2167, (N=3) three student who graduated with AMECHTECH degree in the past, graduated

	with a BS degree in MCET.
Results:	Acceptable Benchmark Achievement: Met
Recommendations :	N/A
Reflections/Notes :	The program is continuing to evolve; however, we finally saw one graduate last academic year 2015-2016, and three more 2016-2017.

Achieve student satisfaction with AMT courses and program

Student Learning Outcome: 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. Administering a survey: pending status based

	on three students. Action plan: The Department sent out an email on October 10., 2017 to three students who completed MCET 221 Strength of Materials course.
Results:	Acceptable Benchmark Achievement: Not Met
Recommendations :	N/A
Reflections/Notes :	The timing of SLOA reporting was moved up much earlier this year, we were unable to gather student survey in a timely matter.

Overall Recommendations

The first semester, first year students remain a challenge. The challenge is to provide this audience the best possible positive experience in Engineering. The attrition did not sit well with the department chair.

Overall Reflection

It is likely that we will need to provide more support and to retain the first year, first semester students (i.e., persistence rate).

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