

Assessment Cycle

Academic Year 2016 – 2017

Engineering and Technology (ET, Associates Degree)

Division or Department: College of Business and Technology

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Northwestern Mission: Northwestern State University is a responsive, student-oriented institution that is committed to the creation, dissemination, and acquisition of knowledge through teaching, research, and service. The University maintains as its highest priority excellence in teaching in graduate and undergraduate programs. Northwestern State University prepares its students to become productive members of society and promotes economic development and improvements in the quality of life of the citizens in its region.

College of Business and Technology Mission: The College of Business and Technology is dedicated to providing a high quality – market responsive business and technology education, preparing students for successful careers and enriched lives in the public, private and nonprofit sectors, and enhancing our students' academic experiences through our research and scholarly activities.

Engineering Technology Department Mission: The Engineering Technology Department is dedicated to delivering high quality education in the areas of engineering technology, electronics engineering technology, and industrial engineering technology, as well as pre-engineering preparation. The department prepares students for successful careers and enriched lives in the public, private and nonprofit sectors, and promotes economic development and enrichment of the communities we serve.

Associate of Science in Engineering Technology Mission Statement: The mission of AS in Engineering Technology is to produce two-year graduates with the breadth and depth of knowledge in engineering technology (with concentrations in advanced manufacturing, electronics, and industrial technology) to become lifelong productive members of the regional workforce and the local society.

Purpose: The Associate of Science in engineering technology program will prepare students to operate, and maintain electronic, mechanical and manufacturing systems. It prepares students for entry positions in government and the private sector in which the ability to implement changes, upgrade operations, and set-up equipment is increasingly critical.

Methodology: The assessment process for the AS in Engineering Technology program is as follows:

(1) Data from assessment tools (both direct – indirect, quantitative and qualitative) are collected and returned to the department head and ET ABET committee

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(2) The department head and ET ABET committee analyze the data to determine whether students have met measurable outcomes

(3) Results from the assessment are discussed with the program faculty

(4) The department head, in consultation with the Engineering Technology Advisory Board, will propose changes to measurable outcomes, assessment tools for the next assessment period and, where needed, curricula and program changes

Student Learning Outcomes (SLOs):

SLO 1. Ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities (ETAC of ABET Outcome a).

Course Map: Tied to course syllabus objectives.

EET 1321: ELECTRICAL PRINCIPLES II LAB

IET 1400: TECHNICAL DRAFTING I

Measure 1.1. (Direct – Knowledge)

Every fall semester, students' grades on the EET 1321 Final Exam are used to assess the attainment of SLO 1. The acceptable target is 80% of students score C or better on final examination.

Finding: *This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.*

Analysis: *Not Applicable*

Action - Decision or Recommendation: *Not Applicable*

Measure 1.2. (Indirect – Knowledge/Ability/Skill)

Every fall semester, a rubric for IET 1400 (under development) is used to evaluate student attainment of SLO 1. The acceptable target is 80% of students rated at least at acceptable level.

Finding: *This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.*

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Analysis: *Not Applicable*

Action - Decision or Recommendation: *Not Applicable*

SLO 2. Ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge (ETAC of ABET Outcome b).

Course Map: Tied to course syllabus objectives.

EET 1320: ELECTRICAL PRINCIPLES II

IET 1400: TECHNICAL DRAFTING I

Measure 2.1. (Direct – Knowledge)

Every fall semester, students' grades on the EET 1320 Final Exam are used to assess the attainment of SLO 2. The acceptable target is 80% of students score C or better on final examination.

Finding: *This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.*

Analysis: *Not Applicable*

Action - Decision or Recommendation: *Not Applicable*

Measure 2.2. (Indirect – Knowledge/Ability/Skill)

Every fall semester, a rubric for IET 1400 (under development) is used to evaluate student attainment of SLO 2. The acceptable target is 80% of students rated at least at acceptable level.

Finding: *This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.*

Analysis: *Not Applicable*

Action - Decision or Recommendation: *Not Applicable*

SLO 3. Ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments (ETAC of ABET Outcome c).

Course Map: Tied to course syllabus objectives.

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EET 1321: ELECTRICAL PRINCIPLES II LAB

Measure 3.1. (Direct – Knowledge)

Every fall semester, students' grades on the EET 1321 Final Exam are used to assess the attainment of SLO 3. The acceptable target is 80% of students score C or better on final examination.

Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

SLO 4. Ability to function effectively as a member of a technical team (ETAC of ABET Outcome d).

Course Map: Tied to course syllabus objectives.

EET 1321: ELECTRICAL PRINCIPLES II LAB

Measure 4.1. (Indirect – Knowledge/Ability/Skill)

Every fall semester, students' grades on the EET 1321 Laboratory Reports are used to assess the attainment of SLO 4. The acceptable target is 80% of students receive C or better on technical component of formal laboratory report.

Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

SLO 5. Ability to identify, analyze, and solve narrowly defined engineering technology problems (ETAC of ABET Outcome e).

Course Map: Tied to course syllabus objectives.

EET 1320: ELECTRICAL PRINCIPLES II
IET 1400: TECHNICAL DRAFTING I

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Measure 5.1. (Direct – Knowledge)

Every fall semester, students' grades on the EET 1320 Final Exam are used to assess the attainment of SLO 5. The acceptable target is 80% of students score C or better on final examination.

Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

Measure 5.2. (Indirect – Knowledge/Ability/Skill)

Every fall semester, a rubric for IET 1400 (under development) is used to evaluate student attainment of SLO 5. The acceptable target is 80% of students rated at least at acceptable level.

Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

SLO 6. Ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature (ETAC of ABET Outcome f).

Course Map: Tied to course syllabus objectives.

COMM 1010: FUNDAMENTALS OF SPEECH

Measure 6.1. (Direct –Skill)

Every semester, student's final grades on COMM 1010 are obtained through institutional research. The acceptable target is 80% of graduating students graded C or better in course COMM 1010.

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Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

SLO 7. An understanding of the need for and an ability to engage in self-directed continuing professional development (ETAC of ABET Outcome g).

Course Map: Tied to course syllabus objectives.

IET 1400: TECHNICAL DRAFTING I

Measure 7.1. (Indirect – Knowledge/Ability/Skill)

Every fall semester, a rubric for IET 1400 (under development) is used to evaluate student attainment of SLO 7. The acceptable target is 80% of students rated at least at acceptable level.

Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

SLO 8. An understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity (ETAC of ABET Outcome h).

Course Map: Tied to course syllabus objectives.

IET 1400: TECHNICAL DRAFTING I
EET 1320: ELECTRICAL PRINCIPLES II

Measure 8.1. (Indirect – Knowledge/Ability/Skill)

Every fall semester, a rubric for IET 1400 (under development) is used to evaluate student attainment of SLO 8. The acceptable target is 80% of students rated at least at acceptable level.

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Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

Measure 8.2. (Direct – Knowledge)

Every fall semester, students' grades on the EET 1320 Final Exam are used to assess the attainment of SLO 8. The acceptable target is 80% of students score C or better on final examination.

Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

SLO 9. A commitment to quality, timeliness, and continuous improvement (ETAC of ABET Outcome i).

Course Map: Tied to course syllabus objectives.

IET 1400: TECHNICAL DRAFTING I
EET 1320: ELECTRICAL PRINCIPLES II

Measure 9.1. (Indirect – Knowledge/Ability/Skill)

Every fall semester, a rubric for IET 1400 (under development) is used to evaluate student attainment of SLO 9. The acceptable target is 80% of students rated at least at acceptable level.

Finding: This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.

Analysis: Not Applicable

Action - Decision or Recommendation: Not Applicable

Measure 9.2. (Direct – Knowledge)

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Every fall semester, students' grades on the EET 1320 Final Exam are used to assess the attainment of SLO 9. The acceptable target is 80% of students score C or better on final examination.

Finding: *This is a new program with limited student enrollment (2 in fall 2016 and 1 in spring 2017). During 2016/2017, an assessment plan was developed, and data will be collected once a sufficient cohort is enrolled in the program.*

Analysis: *Not Applicable*

Action - Decision or Recommendation: *Not Applicable*

Summary of key findings and or decisions.

The assessment plan including course maps and measures are tentative; they are subject to change after discussion with the Engineering Technology advisory committee in Fall 2017. The Associate of Science in Engineering Technology is a new degree with 1-2 enrolled students. Once a sufficient cohort is assembled, assessment of SLO's will commence.