

Assessment: Assessment Plan

Degree Program - ENG - Chemical Engineering (MSCHE)

CIP Code: 14.0701.00

Degree Program Coordinator: Gerri Botte

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Program Purpose Statement: Major objectives of the department during the next decade will be: (1) to provide students with a high quality education at both the undergraduate and graduate levels to enable them to adapt to a rapidly changing technical environment, (2) to produce graduates who will be productive throughout their careers in a wide range of industrial, professional, and academic environments, and (3) to develop graduates with a strong sense of ethics and professionalism and the ability to succeed as both individual and team contributors.

Assessment Coordinator: Jeff Rammage

Modality: Face-to-Face

Student Learning Outcome: Program Outcome Masters 1

Graduates have advanced knowledge of the field and are able to effectively apply this knowledge.

Outcome Status: Active

Outcome Type: Student Learning

Start Date: 09/01/2013

Assessment Methods

Student Transcript Evaluation - Mastery of ChE core concepts. (Active)

Criterion: All students pass required core curriculum with GPA of 3.0 or higher.

Schedule: Annually

Instructor Course Evaluation - Mastery of ChE core concepts (Active)

Criterion: Learning outcomes associated with concept mastery in core courses ChE 5312, 5321, and 5343 are met according to instructor self-evaluations of the courses.

Schedule: Annually

Instructor Course Evaluation - Ability to use computational and modeling tools to solve ChE problems (Active)

Criterion: Learning outcomes associated with computational and modeling tools in core courses ChE 5310 and 5323 are met according to instructor self-evaluations of the courses.

Schedule: Annually

Student Learning Outcome: Program Outcome Masters 2

Graduates have an understanding of research and use literature to creatively solve problems.

Outcome Status: Active

Outcome Type: Student Learning

Start Date: 05/01/2014

Assessment Methods

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Student Projects - Performance in thesis research (Active)

Criterion: Students publish one refereed journal article from their thesis research (Web of Science)

Schedule: Yearly

Employment - Graduate Exit Survey (Active)

Criterion: 100 % of students are placed within six months of graduation

Student Learning Outcome: Program Outcome Masters 3

Graduates are able to effectively communicate technical information.

Outcome Status: Active

Outcome Type: Student Learning

Start Date: 09/01/2013

Assessment Methods

Student Exit Survey - Student presentations (Active)

Criterion: 100% of the students present their work at local, regional, or national meetings

Schedule: Yearly

Student Exit Survey - Student awards for presentations (Active)

Criterion: 20% of the graduating students receive local, regional, or national awards for poster or oral presentations

Schedule: Yearly

Student Learning Outcome: Program Outcome Masters 4

Graduates have a strong sense of professionalism and a good understanding of research ethics and safety

Outcome Status: Active

Outcome Type: Student Learning

Start Date: 05/01/2014

Assessment Methods

Student Projects - Safe conduct of research (Active)

Criterion: Reported safety incidents

Schedule: Yearly

Student Projects - Understanding of research ethics (Active)

Criterion: 100% participated in the TTU RCR program or took a professional ethics course (VPR)

Schedule: Yearly

Student Exit Survey - Membership or participation in professional organizations (Active)

Criterion: 100% of graduating students are members of professional organizations

Schedule: Yearly

Student Exit Survey - Membership or participation in student organizations (Active)

Criterion: 50% participate in TTU graduate student organizations

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Schedule: Yearly