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

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**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

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**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