GRADUATE PROGRAM ASSESSMENT
WICHITA STATE UNIVERSITY

Program Name: Master of Science in Electrical Engineering   **Date:** January 16, 2009

School/College: Engineering   **Campus Box:**   83

A.   Mission Statement

To prepare students for careers in electrical engineering and related fields, as well as for further graduate study.

B.   Constituents

The MS graduate students in Electrical Engineering are the program constituents.

C.   Program Objectives

a.   To ensure the admission of qualified students into the program each year.
b.   To provide qualified faculty for the program.
c.   To provide appropriate laboratories for the program.
d.   To provide an appropriate variety of graduate courses for the program.
e.   To enroll a sufficient number of students to support the courses offered.
f.   To achieve an acceptable placement rate within one year of graduation either in jobs or in graduate programs for further study.
g.   To ensure graduates are satisfied with the program (three years after graduation).

D.   Educational Student Outcomes

Definitions: There are nine areas within the MS in electrical engineering program. They are computer design, communications, computer networking, control, information security, optics, power systems, signal processing, and software engineering. Students in the thesis or directed project options are considered to have a research emphasis. They will have at least one area identified for their emphasis of study. Students in the courses-only option are considered to have an industrial emphasis. They will have at least two areas of emphasis for a broad knowledge of electrical engineering and for preparation for the MS exit exam.

a.   Students with a research emphasis will demonstrate competency in their one selected emphasis area.
b.   Students with a research emphasis will demonstrate report-writing skills.
c.   Students with a research emphasis will demonstrate presentation skills.
d.   Students with an industrial emphasis will demonstrate a broad knowledge of electrical engineering within two selected areas of emphasis.
e.   Students will demonstrate critical and analytical skills necessary for research and industrial engineering.
f.   Students will demonstrate familiarity and skills with modern computer tools necessary for research and industrial engineering.

E.   Assessment of Program Objectives

a.

f. **<u>Program Objective (f) – Placement rate and graduate school admission</u>:**

- More than 85% of the graduates of the program must be placed within six months of graduation either in jobs or in graduate programs for further study.

> **Data is not available at this time. A survey will be conducted to determine the achievement of this objective.**

g. **<u>Program Objective (g) – Satisfaction with the program</u>:**

- More than 85% of program graduates, surveyed three years after graduation, will indicate satisfaction with the program.

> **Data is not available at this time. A survey will be conducted to determine the achievement of this objective.**

F.

> **All graduating students in the coursework option passed the MSEE exit exam.**

    e.   <u>**Educational Outcome (e) – Critical and analytical skills:**</u>

- Students will demonstrate critical and analytical skills necessary for research and industrial engineering. This will be assessed via the (i) successful completion of courses with critical and analytical components (all graduate level courses within the ECE department), (ii) successful completion of a thesis for those with the thesis option, (iii) successful completion of a project for those with a directed project option, and (iv) successful completion of the MS exit exam for those with the courses-only option.

> **This outcome was achieved.   All of the four criteria listed above were met.**

    f.   <u>**Educational Outcome (f) – Modern computer tools:**</u>

- Students will demonstrate familiarity and skills with modern computer tools necessary for research and industrial engineering. This will be assessed in courses that require computer usage, verifying that the students demonstrate skill (course grades of B or better) in at least two modern computer tools.

> **All graduating students had at least two courses on their plans of study that required computer usage.**

G.   **Feedback into the Program**

    <u>**Process:**</u>

The graduate coordinator is responsible for collection of the data pertaining to the assessment report. The department has a Graduate Committee composed of a chair plus three other faculty members within the department. This committee meets annually to review the results of the assessment and to provide feedback into the program. The same committee also reviews the program mission, objectives, outcomes, and the assessment process periodically and in consultation with other faculty members.

H.   **Annual Report:**

> **This data was submitted to the Associate Graduate Dean on January 16, 2009. It will also be presented to the EECS Graduate Committee for review.**

The Assessment Report contains:

        The Graduate Program Assessment document (this document)