

# GRADUATE PROGRAM ASSESSMENT PLAN FOR 2007 WICHITA STATE UNIVERSITY

**Program Name:** Master of Science in Industrial Engineering  
**School/College:** College of Engineering  
**Campus Box No.:** Box 35  
**Date:** September, 2006

## A. Program Mission

To prepare students for careers in industrial engineering and related fields in industry and for further graduate studies. The mission is consistent with that of the College of Engineering as well as that of the university in teaching, scholarship and service.

## B. Program Constituents

Graduate Students

## C. Objectives

1. To admit and retain qualified students into the program each year.
2. To assure that at least 90% of the students who enter the program are graduated.
3. To recruit and maintain a highly qualified faculty to teach, advise and supervise those students, and otherwise meet the needs of the program.
4. To assure that all necessary instructional and research tools, materials, software, hardware, equipment, and laboratories are available, staffed and serviced.
5. To ensure that our graduate students are well prepared for employment and for further graduate studies.
6. To provide an appropriate variety of graduate courses for the program
7. To enroll a sufficient number of students to support the courses offerings.

## D. Educational Student Outcomes

1. All students will demonstrate expertise in at least one of the following core areas of Industrial Engineering: a) Manufacturing Systems Engineering, b) Engineering Systems, and c) Ergonomics/Human Factors.
2. A majority of the students, *in thesis or project options*, will demonstrate ability to carry out independent research or projects.
3. All students will demonstrate expertise in the core areas of production control, ergonomics, statistics and probability, and optimization.

## E. Programs Objectives Assessment Activities

Objective 1: Ensure that all admitted graduate students have a 2.75 or above GPA (At least 60 percent marks for those from foreign universities). Students who are admitted from other engineering disciplines will be required to take appropriate prerequisite courses.

Objective 2: Constant monitoring over a five year window, to ensure that students graduate. Data available from the Graduate School on graduation rates.

Objective 3: Ensure that 90% of faculty have thesis chairing status.

Objective 4: The departmental planning committee will have an undergraduate student as well as a graduate student to ensure that their inputs/concerns are addressed in planning the laboratory purchases as well as the software purchases.

Objective 5: Achieve an 85% placement rate for the program graduates in their fields within one year

after graduation. This includes students who will continue further graduate studies.

Objective 6: The department will offer 9 or more graduate level courses each semester.

Objective 7: The department must enroll more than 50 degree-bound students per semester. The department must grant in excess of 15 Master of Science degrees per academic year.

#### **F. Educational Student Outcomes Assessment Activities**

Objective 1 -- All students will have at least three courses from their area of concentration and obtain a grade of B or better in each course and will maintain a GPA of above 3.0. The courses are listed in the attachment.

-- 50% of all students who attempt the exit exam will pass in the first two attempts.

Objective 2: More than 70% of all students in the graduate program 90% of students taking thesis or project options will successfully complete their thesis or project.

Objective 3: 80% of all graduate students will obtain a 'B' or better in each core course.

#### **G. Feedback Loop Used by the Faculty**

1. Exit survey by departmental head will be used to correct the departmental deficiencies identified by graduate students in terms of lab needs.
2. The graduate school exit survey will be used to adjust departmental corrections to faculty availability and attitude.
3. The departmental graduate committee will review the program outcomes and requirements each semester and recommend changes and corrections.

#### **H. Annual Report**

The Assessment Report documents:

- results from data collection during the academic year
- dates when faculty met to consider the results
- summary of decisions made at the meeting of the faculty
- when issues identified at the meeting will be considered again

# GRADUATE PROGRAM ASSESSMENT PLAN

## WICHITA STATE UNIVERSITY

**Program Name:** Master of Science in Engineering Management  
**School/College:** College of Engineering  
**Campus Box No.:** Box 35  
**Date:** March 24, 2004

### A. Program Mission

To prepare students for careers in industrial engineering and related fields in industry and for further graduate studies. The mission is consistent with that of the College of Engineering as well as that of the university in teaching, scholarship and service.

### B. Program Constituents

Graduate Students

### C. Objectives

1. To admit and retain qualified students into the program each year.
2. To assure that at least 90% of the students who enter the program are graduated.
3. To recruit and maintain a highly qualified faculty to teach, advise and supervise those students, and otherwise meet the needs of the program.
4. To assure that all necessary instructional and research tools, materials, software, hardware, equipment, and laboratories are available, staffed and serviced.
5. To ensure that our graduate students are well prepared for employment and for further graduate studies.
6. To provide an appropriate variety of graduate courses for the program
7. To enroll a sufficient number of students to support the courses offerings.

### D. Educational Student Outcomes

1. The student will demonstrate expertise in Engineering Management: by completing a project or successfully passing the exit exam.
2. A majority of the students will demonstrate ability to carry out independent research or projects.

### E. Programs Objectives Assessment Activities

Objective 1: Ensure that all admitted graduate students have a 2.75 GPA (At least 60 percent marks from foreign universities). Students who are admitted from other engineering disciplines will be required to take appropriate prerequisite courses.

Objective 2: Constant monitoring over a five year window, to ensure that students graduate.

Objective 3: Ensure that 90% of faculty have project chairing status.

Objective 4: The departmental planning committee will have an undergraduate student as well as a graduate student to ensure that their inputs/concerns are addressed in planning the laboratory purchases as well as the software purchases.

Objective 5: Achieve an 85% placement rate for the program graduates in their fields within one year after graduation.

Objective 6: The department will offer 9 or more graduate level courses each semester.

Objective 7: The department must enroll more than 15 degree-bound students in engineering management each year. The department must grant in excess of 10 Master of Science

degrees in Engineering Management per academic year.

**F. Educational Student Outcomes Assessment Activities**

Objective 1: 90% of all students in the project option will successfully defend their project work.  
50% of all students who attempt the exit exam will pass in the first two attempts.

Objective 2: More than 55% of all students in the engineering management program will successfully complete their project.

**H. Feedback Loop Used by the Faculty**

1. Exit survey by departmental head will be used to correct the departmental deficiencies identified by graduate students in terms of lab needs.
2. The graduate school exit survey will be used to adjust departmental corrections to faculty availability and attitude.
3. The departmental graduate committee will review the program outcomes and requirements each semester and recommend changes and corrections.

**H. Annual Report**

The Assessment Report documents:

- results from data collection during the academic year
- dates when faculty met to consider the results
- summary of decisions made at the meeting of the faculty
- when issues identified at the meeting will be considered again

# GRADUATE PROGRAM ASSESSMENT PLAN WICHITA STATE UNIVERSITY

**Program Name:** PhD in Industrial Engineering  
**School/College:** College of Engineering  
**Campus Box No.:** Box 35  
**Date:** March 24, 2004

## A. Mission Statement

To prepare students for careers in industrial engineering and related fields in industry, research organizations, and universities.

## B. Program Constituents

Ph.D. Students

## C. Objectives

1. To admit well-qualified students into the program each year.
2. To assure that at least 70% of the students who join the program are graduated.
3. To recruit and maintain a highly qualified faculty to teach, advise and supervise those students, and otherwise meet the needs of the program.
4. To assure that all necessary instructional tools, materials, software, hardware, equipment, and laboratories are available, staffed and serviced.
5. To provide an appropriate variety of graduate courses for the program
6. To enroll a sufficient number of students to support the courses offerings.

## D. Educational Student Outcomes

1. The student will demonstrate expertise in at least one *major and one minor area* from the following core areas of the Industrial Engineering Masters program: a) Manufacturing Systems Engineering, b) Engineering Systems, c) Ergonomics/Human Factors by completing a dissertation.
2. Students will demonstrate ability to carry out independent research.
3. The students will show core competency in industrial engineering
3. *Students will be able to develop an idea that outlines an original contribution to the knowledge base in industrial engineering.*

## E. Programs Objectives Assessment Activities

- Objective 1: Ensure that all admitted graduate students have a 3.25 GPA (65 percent marks from foreign universities that use a percentage system).
- Objective 2: Constant monitoring over a five year window, to ensure that students graduate. *Graduate School data provides graduation rates for the program.*
- Objective 3: Ensure that 80% of faculty have dissertation chairing status.
- Objective 4: The departmental planning committee will have an undergraduate student as well as a graduate student to ensure that their inputs/concerns are addressed in planning the laboratory purchases as well as the software purchases.
- Objective 5: The department will offer 9 or more graduate level courses each semester.
- Objective 6: The department must enroll more than 5 degree-bound students in PhD each year. The department must grant in excess of 3 PhD in Industrial Engineering per academic year.

## **F. Educational Student Outcomes Assessment Activities**

Objective 1 & 2: 90% of all students who attempt the final defense will successfully defend and their dissertation.

Objective 3: All Ph.D. students will successfully pass the preliminary exam.

*Objective 1: 90% of students will pass their written comprehensive exam on their first attempt.*

*Objective 2: 90% of students who attempt the final defense will successfully defend their dissertation.*

*Objective 3: 95% of students in the program will successfully write and defend (oral presentation) their research proposal.*

## **G. Feedback Loop Used by the Faculty**

1. Exit survey by departmental head will be used to correct the departmental deficiencies identified by graduate students in terms of lab needs.
2. The graduate school exit survey will be used to adjust departmental corrections to faculty availability and attitude.

## **H. Annual Report**

The Assessment Report documents:

- results from data collection during the academic year
- dates when faculty met to consider the results
- summary of decisions made at the meeting of the faculty
- when issues identified at the meeting will be considered again