

**STUDENT LEARNING ASSESSMENT PROGRAM
SUMMARY FORM AY 2004-2005**

Degree and Program Name:

MS in Technology

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Please complete a separate worksheet for each academic program (major, minor) at each level (undergraduate, graduate) in your department. Worksheets are due to CASA annually by July 1. For departments undergoing the IBHE review program, this worksheet should be submitted in fulfillment of the requirements for the learning assessment portion of the statewide review.

PART ONE:

What are the learning objectives?	How, where and when are they assessed? Committee/person responsible?	What are the expectations?	What are the results?	How will the results be used? Committee/person responsible?
1. Students will demonstrate understanding of concepts and models of effective leadership.	Students have an opportunity to demonstrate their knowledge of concepts and theories of leadership through class activities and assignments in TEC 5103 <i>Science & Technology of Leadership</i> . The instructor is responsible for this assessment.	Knowledge of basic models of leadership will be evaluated based on the results of an examination administered at the end of each course. Demonstration of concepts and skills of leadership will be evaluated based on a written leadership assessment and developmental plan submitted by each student. 95 percent meet expectations 5 percent do not meet expectations	Approximately 95 percent of students demonstrate an acceptable level of an understanding of basic leadership models. Approximately 90 percent of student demonstrated an acceptable level of understanding of leadership skills based on their developmental plan.	The self-assessment instrument for developing a leadership development plan will be introduced earlier in the course to give students a longer time to reflect on their own strengths and weaknesses.
2. Students will possess knowledge of strategy, principles and tools of quality systems as applied to business and industry.	Students in TEC 5133 course will be led through a comprehensive process of developing a quality system. Student projects will be assessed to assure their understanding of the strategy and principles. The instructor in the course will be responsible for the assessment.	Students are expected to demonstrate ability to use quality principles and tools for developing quality systems for an organization. 95 percent meet expectations 5 percent do not meet expectations	In Spring 2004, 22 students enrolled in TEC 5133 Total Quality System course. All students met the requirements for quality system development. In Fall 2004, 26 students enrolled in the course and all met the expectations.	Detailed procedure and practice for the project has been constantly updated depending upon the background of students. Major changes include team work, writing consistency and document submission.
3. Students will be able to conduct intellectual research in technology.	TEC 5143 <i>Research in Technology</i> is specifically designed to provide students with the research tools to critique and conduct	A rubric has been designed to evaluate the ability of graduate students enrolled in TEC 5143 to prepare a research proposal that conforms to the form and	In the spring of 2004, 26 students enrolled in TEC 5143 and 26 successfully completed the requirements. In the fall of 2004, 20	Course content and student activities are revised every semester based on informal feedback (e.g., faculty

	experimental and non-experimental research in Technology. Each student is required to complete and submit a research proposal by the end of the semester.	format published in the 5 th edition of the <i>Publication Manual of the American Psychological Association</i> and of the conventions of conventional research practices. The expectation is that every student will design a valid original research proposal that conforms to the prescribed form and format. 95 percent meet expectations 5 percent do not meet expectations	students enrolled in TEC 5143 and 20 students successfully completed the requirements.	observations and discussions with students) and formal evaluation (i.e., course evaluations completed by students).
4. Students will develop an appreciation of the global impact of technology.	Assessments throughout the semester will take place using individual projects, discussion questions, special readings, etc. The instructor of the global technology course will make the assessments.	Students will develop an appreciation of global technology by being actively involved in the projects, questions, readings, etc. and earning at least a 75% on all of these assignments. 95 percent meet expectations 5 percent do not meet expectations	Out of a class enrollment of 20 students in the Fall 2004 semester, 95% (19 out of 20) of the students met the expectation of earning 75% or better on all assignments. 5 % (1 out of 20) did not meet the expectations at the completion of the semester. The student received an I due to personal problems to be resolved in the Spring 2005 semester. No additional action needs to be taken by the instructor since the expectations were met at the level specified.	The results will be evaluated for revision of the course assignments, readings, and other course materials to ensure that all students can demonstrate the required learning objective. The instructor of the global technology course will make corrections, updates, etc as needed.
5. Students will be able to apply critical thinking and problem solving skills in the areas of technology management, training and development, career and technical education or computer technology.	Students will be assessed as a part of comprehensive knowledge certification, which is a partial requirement for graduation from the degree program. The assessment will be conducted by the certification committees on the graduation semester.	Students are expected to pass the certification in order to graduate, which requires students to integrate knowledge gained in the graduate studies for problem solving and decision making. 95 percent meet expectations 5 percent do not meet expectations	Seventeen students conducted the comprehensive knowledge certification. All students met the expectations while four received "Pass with Distinction."	Assessment results will be shared with the graduate committee in Technology. The graduate committee will make recommendations on how to continuously improve content areas offered in the graduate programs.

PART TWO:

- A. **Follow-up Study:** The graduate programs in technology conduct regular follow-up study on graduates and their employers every semester when students are graduating from the program. After completion of certification of comprehensive knowledge, students were given two sets of survey forms. Self-stamped envelopes were provided for returning to the School of Technology. The coordinator of graduate programs collects and analyzes the data.
- Typical information on graduates include: gender, ethnicity, study emphasis, employment status, job responsibility, knowledge and skills required for their positions, their experience and satisfaction about their graduate education experience, knowledge gained in the graduate program and their relations to their jobs. Employer survey include questions related to job responsibility, skills required for the positions, employee's educational preparation for the current position and future advances.
- B. **Certification of Comprehensive Knowledge:** The MS Technology program has fully implemented a new procedure for certifying comprehensive knowledge as a part of graduation requirement. During the certification process, students are required to complete a written report and an oral presentation. Students are asked to address the following questions or issues:
- Describe the bases of the candidate's decision to pursue graduate studies in Technology. The description will include personal and professional goals, as well as desired program outcomes.
 - Discuss how the stated goals have been attained, and to what extent graduate study has impacted the candidate's personal and professional life.
 - Identify one specific concept or model that has left an indelible imprint on the candidate and how this concept/model has transformed his/her personal and professional life.
 - Present a reality-based case (extended example) using a problem solving/decision making format to demonstrate how the knowledge, principles, and tools learned during graduate study may be applied to solve problems or to resolve practical issues. The case should be an actual case based upon candidate's professional experience or personal experience, *or literature review*. Concepts and principles from at least **three** graduate courses should be integrated into the case.
- C. **Study on Student Background:** During the academic year of 2004-5, the graduate programs made great efforts to analyze its student population. For example, about 30% of the graduate students come from our own undergraduate programs, 17% from BOT program, 17% from social sciences, 15% from engineering fields, 12% from business disciplines, and 5% from science majors. This demographic study helped us better understand and serve the needs of graduate students.
- D. **Program Update.** The MS Technology program has been updated as a result of the assessment and quality improvement efforts. The MS Technology has developed a new procedure for certification of comprehensive knowledge. The procedure has been fully implemented since Fall 2004. The procedure requires graduate students to write a comprehensive report and to make a presentation on a reality based case study. It provides one-to-one opportunity for graduate students to interact with graduate faculty. Students are challenged to integrate the knowledge gained in the graduate program for problem solving and decision making. The certification process serves an effective mechanism for students and faculty reflect on the program accomplishment and to identify areas for improvements. It is also one of the ways to effectively assess the student learning outcomes from the MS Technology program.
- E. **Curriculum Improvement:** Curriculum, course contents and delivery approaches have been constantly updated for the graduate program. Instructors are responsible for constant improvement in their preparation and delivery of the subject. Based upon student interests and responses to the contents, adjustments have been made to meet students needs. As a result, team work and class interaction have been strongly promoted in the program.

