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Cover Sheet for Assessment Plans

BY:.....

Directions: Please complete a separate cover sheet for each degree program (e.g., Associates – Doctorate). Feel free to make copies of this sheet if needed. Those graduate programs with an integrated master's and doctoral program may submit one cover sheet. The department head and respective dean are to sign before the plans are submitted to the Provost.

Department / Unit: Engineering Technology

Title and Level of Academic Program (e.g., Chemistry, Ph.D.): Bachelor Degree in Engineering Technology, Computer Systems Technology Option

When submitting an Assessment Plan, please check and indicate when the faculty endorsed the plan.

<input checked="" type="checkbox"/> Faculty have met, reviewed, and endorsed the Assessment Plans being submitted for this degree program.	Date of Endorsement: <u>5-3-05</u>
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Department Head's Signature

07-09-05
Date


College Dean's Signature
(Required for Undergraduate Programs)

7/11/05
Date

Dean of the Graduate School's Signature
(Required for Graduate Degree Programs)

Date

November 1, 2004: Assessment plans are to be sent to the respective Dean
November 29, 2004: Relevant materials are to be sent from the Deans to the Provost

**B.S. in Engineering Technology – Computer Systems Technology Option
Assessment of Student Learning Plan
Kansas State University**

- Check the box if your program's student learning outcomes have been modified since November 2003. If so, please email (apr@ksu.edu) or attach a hard copy to this document.

A. College, Department, and Date

College: Technology and Aviation
Department: Engineering Technology
Date: May 3, 2005

B. Contact Person(s) for the Assessment Plans

Troy Harding, Associate Professor
Thomas Mertz, Assistant Professor, CMST Program Coordinator

C. Degree Program

B.S. in Engineering Technology – Computer Systems Technology Option (ETB-CP)

D. Assessment of Student Learning Three-Year Plan

1. Student Learning Outcome(s)

We have chosen to focus on the following three SLOs in the next three years:

Computer Systems Technology program graduates will demonstrate:

A. Technical Skills and Knowledge.

6. Ability to build, operate and maintain a complex database system, Internet web site, stand-alone application or local area network. (Technical Application)

C. Communication.

1. The ability to write clear and effective technical documents and reports. (Written Communication)

D. Professional Behavior in a Diverse World.

2. The ability to work effectively on teams. (Teamwork)

Special rationale for selecting these learning outcomes:

C.1. Written Communication.

- A new writing center is being established in the College of Technology and Aviation. We would like to partner with our Writing Center colleagues to learn how to better assess student writing skills and how we can best help our students in this area.

Relationship to K-State Student Learning Outcomes:

Program SLOs	University-wide SLOs (Undergraduate Programs)					Other
	Knowledge	Critical Thinking	Communication	Diversity	Academic / Professional Integrity	
A.6. Technical Application	X					
C.1. Written Communication			X			
D.2. Teamwork				X		

2. How will the learning outcomes be assessed? What groups will be included in the assessment?

Learning Outcomes	Measures			Who will be assessed?
	Direct	Indirect	Not sure	
A.6. Technical Application	CMST 462 - Computer Technology Senior Project (Capstone course) <i>[Rubrics will be developed to evaluate students' final class projects for functionality, reliability, usability, correctness, and maintainability.]</i>			All students enrolled in the course
		Feedback from graduate and internship employers <i>[Questionnaire or other tool to be developed.]</i>		Students recently employed and students who participate in internships
		Graduate survey		Students graduating at the end of the semester
	Evaluation of final class projects in second level programming courses (CMST 310, 335, 341, and 347) <i>[Rubrics will be developed to evaluate functionality, reliability, usability, correctness, and maintainability.]</i>			Students enrolled in these courses

C.1. Written Communication	Critical evaluation of the project development documents in CMST 334 and 462 (Sophomore and Senior project courses) <i>[Rubric will be developed in coordination with Writing Center faculty]</i>			All students enrolled in the course
		Feedback from graduate and internship employers <i>[Questionnaire or other tool to be developed.]</i>		Students recently employed and students who participate in internships
		Graduate survey		Students graduating at the end of the semester
	Course assignment assessment (CMST 250, ENGL 302) <i>[Rubric]</i>			Students enrolled in courses
D.2. Teamwork	Peer evaluation of team participation and effectiveness in CMST 334 and 462 (Sophomore and Senior project courses) <i>[A tool is in place but may need to be refined.]</i>	CMST 334 and 462 student's self-report of team skills <i>[rubric or survey]</i>		All students enrolled in the course
	Faculty evaluation of team participation and effectiveness in CMST 334 and 462 <i>[Rubric]</i>			All students enrolled in the course
		Survey of employers on graduates' ability to work in teams		Students recently employed

3. When will these outcomes be assessed? When and in what format will the results of the assessment be discussed?

Learning Outcomes	Timetable for Assessment Learning Outcomes			Discussion of Results
	2005	2006	2007	
A.6. Technical Application	Spring senior capstone – CMST 462 project	Spring senior capstone – CMST 462 project	Spring senior capstone – CMST 462 project	Meeting of program faculty; At the end of each semester the information will be combined and documented. The primary instructors in the curriculum will conduct an informal discussion at the end of each semester. At the beginning of the spring semester, a formal evaluation of
	Final Projects for CMST 310, 335, 341, 347 <i>For Fall courses</i>	Final Projects for CMST 310, 335, 341, 347 each time course offered	Final Projects for CMST 310, 335, 341, 347 each time course offered	

	Feedback from employers of graduates <i>[Fall survey]</i>	Feedback from employers of graduates <i>[Fall survey]</i>	Feedback from employers of graduates <i>[Fall survey]</i>	the student learning outcomes will be conducted. This evaluation will be conducted by the curriculum primary instructors. Annual industrial advisory board meeting; results to be shared with industry representatives and program faculty in attendance. Reaction and suggestions of board members will be noted and considered toward improvement efforts.
		Survey each student applying for graduation at end of semester	Survey each student applying for graduation at end of semester	
C.1. Written Communication	<i>Spring - develop rubric for evaluating writing</i>	Spring CMST 334, 462 project documentation	Spring CMST 334, 462 project documentation	<i>(See above for more detail.)</i> Meeting of program faculty; English faculty will assist in assessment of writing. Annual industrial advisory board meeting
	Fall - Course assignments from CMST 250, ENGL 302	Spring/Fall - Assignments from CMST 250, ENGL 302	Spring/Fall - Assignments from CMST 250, ENGL 302	
	Feedback from employers of graduates <i>[Fall survey]</i>	Feedback from employers of graduates <i>[Fall survey]</i>	Feedback from employers of graduates <i>[Fall survey]</i>	
		Survey each student applying for graduation at end of semester	Survey each student applying for graduation at end of semester	
D.2. Teamwork	Spring sophomore and senior project courses CMST 334 and 462 Peer and Self Evaluation	Spring soph. and senior project courses CMST 334 and 462 Peer and Self Evaluation	Spring soph. and senior project courses CMST 334 and 462 Peer and Self Evaluation	<i>(See above for more detail.)</i> Meeting of program faculty Annual industrial advisory board meeting
	Spring soph. and senior project courses CMST 334 and 462 Teamwork evaluation by instructor	Spring soph. and senior project courses CMST 334 and 462 Teamwork evaluation by instructor	Spring soph. and senior project courses CMST 334 and 462 Teamwork evaluation by instructor	
	Feedback from employers of graduates <i>[Fall survey]</i>	Feedback from employers of graduates <i>[Fall survey]</i>	Feedback from employers of graduates <i>[Fall survey]</i>	

4. What is the unit's process for using assessment results to improve student learning?

Learning Outcomes	Improvement plan
A.6. Technical Application	<p>Based on the program faculty meetings and advisory board feedback, faculty will recommend changes to the respective classes and curriculum. It is anticipated that the first year or two will be used to help establish a baseline and test the assessment process and tools. Strengths and weaknesses will be acknowledged and shared with students, colleagues and advisory board members. In addition, these groups will be made aware of how the weaknesses are being addressed. Students will be made aware through revised syllabi and verbal communication during classes. Information will be shared with faculty and administrators during faculty meetings and annual assessment reports.</p>
C.1. Written Communication	<p>The CMST faculty will work closely with the faculty of the K-State at Salina Writing Center. The Writing Center and English faculty will assist in the development of rubrics and the evaluation of writing. Based on the spring meetings and advisory board feedback, faculty will recommend changes to the respective classes and curriculum. Many other programs within the college will be formally assessing written communication as well. It is anticipated the Writing Center will help develop and coordinate improvement strategies.</p> <p>The first year will be used to help establish a baseline and test the assessment process and tools. Strengths and weaknesses will be acknowledged and shared with students, colleagues and advisory board members. In addition, these groups will be made aware of how the weaknesses are being addressed. Students will be made aware through revised syllabi and verbal communication during classes. Information will be shared with faculty and administrators during faculty meetings and annual assessment reports.</p>
D.2. Teamwork	<p>Although the teamwork measures will mostly occur during the sophomore and senior project courses, it is recognized that teamwork skills need to be emphasized throughout the curriculum. Instructors will utilize a variety of approaches throughout their classes to prepare students for the senior project course and beyond. Based on the results and feedback, program faculty will recommend changes.</p> <p>It is anticipated that the first year or two will be used to help establish a baseline and test the assessment process and tools. Strengths and weaknesses will be acknowledged and shared with students, colleagues and advisory board members. In addition, these groups will be made aware of how the weaknesses are being addressed. Students will be made aware through revised syllabi and verbal communication during classes. Information will be shared with faculty and administrators during faculty meetings and annual assessment reports.</p>

**B.S. in Engineering Technology – Computer Systems Technology Option
ETB-CP**

Graduates of the Computer Systems Technology option will demonstrate:

A. Technical Skills and Knowledge.

1. Knowledge of computer hardware, architecture and digital logic.
2. Knowledge of operating systems and programming language processing.
3. Knowledge of current computer programming tools, techniques and languages.
4. Knowledge of current tools and techniques of database systems, Web technology, and computer networking.
5. Ability to apply current tools and techniques in the design of database systems, stand alone applications, web technology and computer networking
6. Ability to build, operate and maintain a complex database system, Internet web site, stand-alone application or local area network.

B. Creative Design, Application and Lifelong Learning.

1. Ability to analyze, design, implement, test, and document stand alone computer programs.
2. Ability to creatively solve problems by analyzing, designing, and implementing computer information systems
3. Ability to apply project management techniques to the development of a computer system.
4. Application of mathematics to computer systems at or above the level of algebra and trigonometry.
5. A commitment to life-long learning.
6. A commitment to quality and continuous improvement.

C. Communication.

1. Write clear and effective technical documents and reports.
2. Verbally communicate technical information to a variety of audiences.

D. Professional Behavior in a Diverse World.

1. A respect and understanding of diversity in the workplace.
2. An ability to work effectively on teams.

E. Professional Development.

1. Knowledge of professional ethics and social responsibility.
2. Awareness of the impact of technology on society.