

***Western Carolina University Program Assessment Plan  
M.S. Technology  
Kimmel School of Construction Management, Engineering, and Technology  
Assessment Plan for 2006- 20007***

***Primary Contact Name/Info:***

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***Program Mission Statement:***

The mission of the of the Master of Science in Technology (MST) program is to prepare graduates with the technical and managerial skills necessary to enter careers in process and systems design, technical sales, manufacturing operations, maintenance or service functions of a manufacturing enterprise. Further, the program supports the University's mission and commitment to the community as it provides industries in North Carolina and the region with graduates capable of being immediately productive, and a faculty responsive to the region's economic changes and growth.

***Statement on Alignment of Program Mission w/ University and College Mission:***

The M.S. Technology aligns with the mission and strategic vision of the University and College by addressing the following elements:

1. Provide a quality technically oriented graduate degree
2. Meet the service needs for technical graduate education within the region
3. Promote applied graduate research projects that support regional industry
4. Provide graduate education and support engagement projects that support regional economic development.

***Program Goals/Objectives:***

1. Develop graduates who are able to design, develop, evaluate, Implement, and manage systems that integrate people, materials, information, equipment, and processes.
2. Develop graduates who are able to immediately contribute to industrial, service, and/or government organizations.
3. Develop graduates who are prepared for the technical workforce.

4. Develop graduates who value professional development through lifelong learning.
5. Develop graduates who, in addition to their core knowledge, have applied knowledge in statistics, design of experiments, quality, and management of technical projects.

***Intended Learning Outcomes***

1. Apply math, science, and engineering principles to identify, formulate, analyze, and solve technical problems using appropriate techniques, skills, and tools necessary for applied engineering and technical practice.
2. Design and conduct experiments, as well as analyze and interpret data, to solve technical problems
3. Function on multi-disciplinary teams to develop team problem solving, Project/time management, and communication skills.
4. Working knowledge of professional and ethical responsibility
5. Communicate effectively through written, oral, and graphical means
6. Knowledge of contemporary issues and the impact of technical solutions in a global and societal context
7. Recognize the need for, and be able to engage in, life-long learning through continuing education and training, and professional development activities.
8. Design, develop, implement, improve and manage integrated systems or processes that includes people, materials, information and equipment to meet desired needs.
9. Integrate systems using appropriate analytical and experimental practices.
10. Produce graduates who, in addition to their core knowledge, have direct applied knowledge in statistics, design of experiments, quality, and technical project management.
11. Demonstrate gained knowledge through an applied directed project.

*Outcome Delivery Matrix*

<b>Intended Outcome</b>	<b>Course/Experience/Activity</b>
1	ET 510, 570, 642
2	ET 603, 640
3	ET 570, 575, 640, 642 or 644, MGT 605, 606
4	Core courses and ET 688
5	All ET courses and ENGL 501
6	ET 640
7	All courses and Directed Project
8	ET 575, 642
9	ET 642, ET 688
10	ET 603, 640, 575, 688
11	ET 688

### ***Assessment Activities***

1. Traditional exams, problem set evaluations, proposals, presentations
2. Individual class projects, presentations and course requirements
3. Directed project written final report and presentation
4. Oral comprehensive examination
5. Job placement

### ***Program Improvement Plans Based on Data Gathered***

1. Increase program emphasis on applied research
2. Provide more opportunities for engagement projects
3. Increased focus on written and oral communication
4. Increase the number of graduate faculty within the department
5. Increase diversity through recruitment from other technical programs and institutions

### ***Faculty Involvement***

1. Graduate faculty maintains expected standards and quality for all graduate level coursework.
2. Graduate faculty serves as mentors and advisors for directed projects and engagement activities.
3. Program director serves as academic advisor
4. School Director typically teaches one graduate course and/or mentors directed project activities.
5. Director of CIT teaches one graduate course and assists in coordinating graduate projects in support of external engagement.

### ***Parties Responsible for Annual Assessment***

1. Program Director
2. All graduate faculty (individual courses and/or projects)
3. School Director