



Unit Plan Annual Narrative

Directions: Use the "Unit Plan Narrative Guide Sheet" to complete this planning form. Be sure that under each section, you write a narrative which discusses all elements listed under each heading. If a particular element does not apply to your area, note that within your narrative. Again, this form should be completed as a narrative, not bulleted.

Department/Unit: Manufacturing and Engineering Technology (MET)

Unit Administrator: Nancy Wilson

Date: 7/10/06

A. Unit Description

- a. Connection of the unit to the institution's role and mission: The Manufacturing and Engineering Division provides affordable and accessible lifelong learning opportunities in order to prepare students for employment, career advancement or transfer to a four-year institution.
- b. Unit Achievements: Authorized Autodesk Training Center is one of the largest accomplishments this year. Classes are being held regularly for both business and education. The College's first 21st Century Advanced Technology Academy was offered this summer with nearly 200 high school participants. The Academy seminars included; robotics, manufacturing, rapid prototyping, 3D animation, solids modeling Geographic Information Systems (GIS) and computer repair. New equipment was purchased for Industrial Maintenance this year and as a direct result enrollment is growing in that program. Drafting held a high school competition which attracted 48 students, and the Division also sponsored a Weld-Off for 40 high school students.
- c. Instructional Units within your division: Aviation Maintenance/Airframe, Drafting and Design, Electronics Engineering Technology, Electronics Industrial, Electrical, Geographic Information Systems (GIS), Industrial Maintenance, Machine Tool, Microelectronics, and Welding.

B. Unit Effectiveness

- a. Staff Description: The MET instructors are knowledgeable in their field of expertise. Our instructors attend conferences and seminars to stay current in their fields. Each instructor's credentials are listed below.
Wilson, Nancy – Manufacturing and Engineering Division Chair, Instructor in Industrial Maintenance and Electronics Industrial; AAT, Bessemer State Technical College, BS, Athens State College, Certifications: A+ and FCC GROL.
Wade, Henry – Instructor in CAD/CAM; BA and MS, Architecture, Tuskegee University.
Perry, Donnell – Instructor in CAD/CAM, GIS, and Fire Protection; Certificate, Jefferson State Community College, AAT Jefferson State Community College, BS, Birmingham Southern College, MS, Alabama A&M University
Raymond, Rich – Instructor in Electronics; AAT, Bessemer State Technical College, Certifications: A+, NOCTI
Ledford, Roy – Instructor Welding; Diploma, Bessemer State Technical College, BS, Athens State College, Certification: Welding Inspector, GMAW Aluminum, SMAW, GTAW Aluminum
Jones, David – Instructor in CAD; BA, Tuskegee University, MA, Tuskegee University.
- b. Instructional Effectiveness / Student Success: The average job placement rate for the

Engineering and Manufacturing Division is 87.5%.

- c. **Support Services Connection & Resource Availability:** The Bessemer campus needs more computer maintenance support.
- d. **Customer Service Ranking:** The division continues to receive high marks from current and former students, advisory committee members and employers of our graduates.

C. Value Added

- a. **Support of the unit to other program and units:** Manufacturing is growing in the Birmingham metropolitan area. All of the MET programs benefit this growing industry. The MET division is working with local manufacturers to develop a manufacturing certificate and a machine tool certificate to meet their needs. Dr. Crawford, Dr. Murray and I have submitted five grant proposals this year.
- b. **Strengths:** Industrial Maintenance is an area that is growing along with GIS. The INT program has increased during the past year due to the purchase of new training units. More employers are sending current employees to the program for upgrade training.
- c. **Areas Needing Improvement:** Advisement, recruitment, customer service, equipment, software, and some lab renovations.
- d. **Department or Unit Needs:** A new computer lab with current software is needed for CAD on the Birmingham campus. Manufacturing trainers and software are needed on the Bessemer campus along with a rapid prototype machine and a robotic welder. Renovations to the Welding Lab in the Millsap Industrial Training Building are needed on the Bessemer campus.
- e. **Customer Service Ranking:** All Advisory Committees were satisfied with the progress that the programs have made this past year.
- f. **Recommendations:** As the Manufacturing and Engineering Division grows it needs a separate building such as the Millsap Industrial Training Building or a facility on Lakeshore Drive in order to bring everything under one roof.

D. Projections

- a. **Staff needs:** There is a need to hire an entry level electronics/electrical instructor.
- b. **Resources needs:** A new computer lab with current software is needed for CAD on the Birmingham campus. Manufacturing trainers and software are needed on the Bessemer campus along with a rapid prototype machine and a robotic welder. Renovations to the Welding Lab in the Millsap Industrial Training Building are needed on the Bessemer campus.
- c. **Professional development needs:** All instructors need Tegrity and Powerpoint instruction.
- d. **Department and Unit Needs:** A new computer lab with current software is needed for CAD on the Birmingham campus. Manufacturing trainers and software are needed on the Bessemer campus along with a rapid prototype machine and a robotic welder. Renovations to the Welding Lab in the Millsap Industrial Training Building are needed on the Bessemer campus.

E. Recommendations:

Develop new and division and program brochures. Marketing efforts need to include TV, radio, and newspaper. It takes multiple contacts with prospects instead of just a schedule book each term.

Institutional Effectiveness Unit Plan (Phase I) for 2005-2006

Directions: Use 9 point font when completing this form. First, complete columns A-D. Make sure your Unit Outcomes are targeted, essential and measurable. Columns E & F (which serve to assess whether your goals were reached and how you intend to use the results) will *not* be completed until the end of the cycle in the spring.

Unit : Division of Engineering and Manufacturing

Unit Administrator: Nancy Wilson

Unit's Mission: The Division of Engineering and Manufacturing is dedicated to providing accessible, quality, educational opportunities for all students.

	A. Unit Outcomes (3-5)	B. Outcomes Link to Institutional Goals & Strategic Indicators	C. Methods of Assessing the Outcome	D. Budget Implications
Number each Outcome in each column	<p>Should be measurable. Use percentages where possible. <u>Be brief.</u></p> <ol style="list-style-type: none"> 1. All instructors complete specialized Tegrity training 2. Achieve a 60% average completion rate 3. Achieve a 60% job placement rate 4. Expand Business and Industry training opportunities by 50% 	<p>List the goal numbers and the corresponding Strategic Indicator letters</p> <ol style="list-style-type: none"> 1. Goal 1: Indicators A-E Goal 3: Indicators A-D 2. Goal 1: Indicator C Goal 4: Indicators B & F 3. Goal 1: Indicator C Goal 4: Indicators B 4. Goal 1: Indicators A-D Goal 2: Indicators A-C Goal 3: Indicators A-D Goal 5: Indicators C-D Goal 7: Indicators C & D Goal 8: Goal 9: Indicators A-D 	<p>List what methods you plan on using to measure each outcome</p> <ol style="list-style-type: none"> 1. Training Reports 2. AS400 Data 3. Surveys, Oral Reports and Observations 4. Develop and implement a matrix documenting progress 	<p>If your outcome has budget implications (costs that will exceed \$499), list them here.</p> <ol style="list-style-type: none"> 1. None 2. None 3. None 4. Industry standard equipment

Number each Outcome in each column

5. Develop and implement a short-certificate in Machine Tool Technology

6. Develop and implement a short-certificate in Automated Manufacturing Technology

7. Lay groundwork for opening the Aviation Maintenance Program

5. Goal 1: Indicators A-D
Goal 2: Indicators A-C
Goal 3: Indicators A-D
Goal 5: Indicators C-D
Goal 7: Indicators C & D
Goal 9: Indicators A-D

6. Goal 1: Indicators A-D
Goal 2: Indicators A-C
Goal 3: Indicators A-D
Goal 5: Indicators C-D
Goal 7: Indicator C & D
Goal 9: Indicators A-D

7. Goal 1: Indicators A-D
Goal 2: Indicators A-C
Goal 3: Indicators A-D
Goal 5: Indicators C-D
Goal 7: Indicators C & D
Goal 9: Indicators A-D

5. Surveys, Oral Reports and observations

6. Community Surveys and documentation of new award

7. Develop and implement a matrix documenting progress

5. Adjunct instructors and advertising

6. Robotics and Industrial Maintenance trainers

7. Required equipment and full-time instructor

Unit Plan--Part II: Directions : As noted on page one of this plan, complete columns E & F at the end of the planning cycle in the spring. As you report under each column, be sure to carry over the numbers which represent each outcome you are addressing.

E. Actual Results Obtained—when you assessed and measured your stated outcomes, what results did you find? Be clear and concise in your reporting.

1. The MET Instructors have not completed Tegrity® Training. This goal will be added to next years goals
2. The completion rate for the division is low around 57%.
3. The job placement rate for Drafting is 83.3%. The job placement rate for Electronics is 83.3%. The job placement rate for Welding is 100%. The average job placement rate for the Engineering and Manufacturing Division is 87.5%
4. Training offered in Autodesk for local industries. Training was also offered in 3D animation, solids modeling and Architectural Desktop for High School and Postsecondary instructors.
5. A short 29 credit hour short certificate developed and listed in the catalog. The advisory committee met and approved curriculum. A letter was written requesting Post Secondary approval for the C29. The letter will be finalized and submitted this summer.
6. Mechanical motors trainers were purchased during the fall semester. Grants were written to fund manufacturing and robotics labs. A Manufacturing Summit to be held on July 7th to enlist the help of local manufacturers.
7. Began partnership with PEMCO.

F. Use of Results—Now that you have your results, how do you intend to use these results or, if implemented early, how have you used these results to improve your overall unit for the upcoming academic year? **NOTE** After you list how you intend to use these results, be sure to include such improvements in your new Unit Plan for the upcoming academic year.

1. This goal will be added to next years goals. One instructor requested Powerpoint training prior to Tegrity Training.
2. The division needs to work harder to improve on the completion rate. This goal will be added to next years goals
3. Continue to improve on the job placement rate.
4. Offer additional training next year.
5. The letter will be finalized and mailed to the Department of Postsecondary Education. After approval to add the program is granted students will be admitted into the program.
6. After the Manufacturing Summit, an advisory committee will be formed and letters written to add manufacturing to the catalog and AS400.
7. Develop an Advisory committee. Find an instructor to teach the program. Find location sufficient for training.