**PROGRAM CHANGES**

 WEBER STATE UNIVERSITY

**Submission Date:** November 16, 2009 Revision 12/10/2009

**College:** College of Applies Science and Technology

**Department**: Manufacturing and Mechanical Engineering Technology

**Program Title:** Manufacturing Engineering Technology

 **PROGRAM DESCRIPTION:**

See attached program description sheets from the catalog

Check all that apply:

\_X\_\_New course(s) required for major, minor, emphasis, or concentration.

\_\_\_\_Modified course(s) required for major, minor, emphasis, or concentration.

\_\_\_\_Credit hour change(s) required for major, minor, emphasis, or concentration.

\_\_\_\_Credit hour change(s) for a course which is required for the major, minor, emphasis, or concentration.

\_\_\_\_Attribute change(s) for any course.

\_\_\_\_Program name change.

\_X\_\_Deletion of required course(s).

\_\_\_\_Other changes (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Submit the original to the Faculty Senate Office, MC 1033,** and an **electronic copy to** kbrown4 @weber.edu

**JUSTIFICATION:**

We feel that there are too many courses focusing specifically on metals and machining. MFET 1210 Machining Principles I, MFET 2440/L CNC Machining, 3610 Machining Principles II, and MFET 3710 Rapid Prototyping all are focused primarily on metals. We would like to list ~~eliminate~~ MFET 3610 Machining Principles II (three credit hours) as an elective rather than a required course.

We would like to strengthen our electronics requirements by replacing CEET 1110 (two credit hours) with CEET1850 (4 credit hours).

In an effort to consolidate similar classes we propose to drop the requirement for MFET 3320 Machine Design (2 credit hours) and require MFET students to take MET 3400 Machine Design for three credit hours.

We would like to replace MFET 3010 Tool Design with DGET 3100 Tool Design to eliminate duplication of courses between programs.

We also would like to expand the list of suggested electives, correct prerequisite requirements for MFET 2440, make a minor corrections to the physics class listing (PHSX 2010 instead of PHSX 2010/L, and change DGET 2640 Architectural Estimating to DGET 2460 Design Fundamentals Using 3-D CAD (DGET 2640 was apparently an error; the class was never required in the MFET program).

We would like to eliminate MFET 4600. It is not a required course and has not been taught for over 8 years.

Overall there is no change to the total of 125 hours required for the degree MFET-BS degree.

 **INFORMATION PAGE**

Manufacturing Engineering Technology

****ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)****

**» Grade Requirements:** A grade of "C" or better in all MFET courses is required (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.00 or higher. Also refer to the general grade requirements for graduation under [General Requirements](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5Ccatgened.htm).

**» Credit Hour Requirements:** Credit hours vary as shown for different emphasis areas; the AAS for Manufacturing Engineering Technology requires 64 credit hours, the AAS for Manufacturing Engineering Technology with a Welding emphasis requires 63 credit hours, and the AAS for Manufacturing Engineering Technology with Plastics Emphasis requires 64 credit hours. 63-65 credit hours is required for graduation with a minimum of 18 credit hours required within the major. Transfer students are required to take a minimum of ~~30~~ 20 credit hours at Weber State University.

**» Assessment Requirements:** Students will be required to complete certain assessment instruments as part of the overall requirements for receiving their associate's degree. Please see your advisor or your department for specific information regarding assessment.

Advisement

All Manufacturing Engineering Technology students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

Admission Requirements

Declare your [program of study](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5CProgram%20Changes%5Cprogstd.htm). There are no special admission or application requirements for this program.

General Education

Refer to the [General Education Requirements](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5Ccatgened.htm) for Associate of Applied Science degrees. [Computer & Information Literacy](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5CProgram%20Changes%5Cgened.htm#COMPUTER LITERACY) as defined in this catalog is also required for the AAS degree. Consult with your advisor for specific general education guidelines.

Course Requirements for the AAS Degree

*Core Courses (53-55 50 credit hours)*

*AAS Degree requirements for an AAS Degree in Manufacturing Engineering Technology, an AAS Degree in Manufacturing Engineering Technology with an Emphasis in Welding Engineering Technology, or an AAS Degree in Manufacturing Engineering Technology with a Plastic and Composite Emphasis will be met by completing the first two years of the respective BS Degree. All AAS Degrees will have the following courses in common.*

Manufacturing Engineering Technology Courses Required (11 credit hours)

* MFET 1210 Machining Principles Lecture/Lab I (3)
* MFET SI2300 Statics & Strength of Materials (5)
* MFET SI2410 Quality Concepts and Statistical Applications (3)

Technical Courses Required (8-10 credit hours)

* DGET 1060 Fundamentals of Drafting Using 3D CAD (3)
* DGET 1160 Documentation Using 3D CAD (3)
* Computer and Information Literacy exams/courses (2/4) \*

Support Courses Required (22 credit hours)

* COMM HU2110 Interpersonal & Small Group Communication (3) \*
* CHEM PS/SI1110 Elementary Chemistry (5) \*
* MATH QL1080 Pre-Calculus (5) \*
* MATH SI1210 Calculus I (4)
* PHYS PS/SI2010~~/L~~ College Physics I (w/lab) (5) \*
or PHYS PS/SI2210~~/L~~ Physics for Scientists & Engineers (w/lab) (5)

Other Courses Required (12 9 credit hours)

* ENGL EN1010 Introductory College Writing (3) \*
* ENGL EN2010 Intermediate College Writing (3) \*
* ECON SS1010 Economics as a Social Science (3)\*
* GenEd HU/CA Elective (3)

*Additional Courses Required by Emphasis Area*

AAS Manufacturing Engineering Technology (12 14 credit hours)

* CEET 1110 Basic Electronics (2) CEET 1850 Industrial Electronics (4)
* MFET 1150 Pre-Professional Seminar in Manufacturing (1)
* MFET 2150/L Metal Forming, Casting and Welding (w/lab) (3)
* MFET 2440/L Computer Numeric Control (CNC) in Manufacturing (w/lab) (3)
* DGET 2640 Architectural Estimating (2) DGET 2460 Design Fundamentals Using 3-D CAD (3)

AAS Manufacturing Engineering Technology with Welding Emphasis (10 13 credit hours)

* CEET 1850 Industrial Electronics (4)
* MFET 2150/L Metal Forming, Casting and Welding (w/lab) (3)
* DGET 2640 Architectural Estimating (2) DGET 2460 Design Fundamentals Using 3-D CAD (3)
* GenEd HU/CA Elective (3) \*

AAS Manufacturing Engineering Technology with Plastic and Composite Emphasis (11 14 credit hours)

* CEET 1110 Basic Electronics (2)
* MFET 2850 CNC/CAM for Plastic and Composite Lecture/Lab (3)
* MFET 2860 Plastic/Composite Materials and Properties (3)
* MFET 2870 Design of Plastic/Composite Products (3)
* GenEd HU/CA Elective (3) \*

\* *These courses will also fulfill general education requirements*

Suggested Course Sequence

Please refer to the first two years of the suggested course sequence for the relevant [*Bachelor of Science Degree*](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5C~mfetb.htm).

Manufacturing Engineering Technology,
Welding Engineering Technology Emphasis, &
Plastic and Composite Engineering Technology Emphasis

BACHELOR OF SCIENCE DEGREE (BS)

**» Program Prerequisite:** Complete the requirements for the related [AAS Degree in Manufacturing Engineering Technology](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5C~mfeta.htm). For the Bachelor of Science Degree in Manufacturing Engineering Technology students must complete the requirements for the AAS Degree in Manufacturing Engineering Technology. For the Bachelor of Science Degree in Manufacturing Engineering Technology with a Welding Emphasis students must complete the requirements for the AAS Degree in Manufacturing Engineering Technology with a Welding Emphasis. For the Bachelor of Science Degree in Manufacturing Engineering Technology with a Plastics Emphasis students must complete the requirements for the AAS Degree in Manufacturing Engineering Technology with a Plastics Emphasis.

**» Minor:** Not required.

**» Grade Requirements:** A grade of "C" or better in all MFET courses, support courses, and technical electives is required for this major (a grade of "C-" is not acceptable) in addition to an overall GPA for all courses of 2.0 or higher. Also refer to the general grade requirements for graduation under [General Requirements](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5Ccatgened.htm).

**» Credit Hour Requirements:** The total credit hours required for graduation are: 125 credit hours for the general Manufacturing Engineering Technology BS degree, 124 credit hours for the Welding Engineering Technology Emphasis BS degree, and 126 credit hours for the Plastic and Composite Engineering Technology Emphasis BS degree. A total of 40 upper division credit hours is also required (courses numbered 3000 and above). Transfer students are required to take a minimum of 30 credit hours at Weber State University.

Advisement

All Manufacturing Engineering Technology, Welding Engineering Technology Emphasis, and Plastic and Composite Engineering Technoloyg Technology Emphasis students are required to meet with their faculty advisor at least annually for course and program advisement. Please call the department secretary at 801-626-6305 for the name of your advisor and to schedule an appointment.

Admission Requirements

Declare your [program of study](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5CProgram%20Changes%5Cprogstd.htm). Refer to the Program Prerequisite above. There are no additional special admission or application requirements for this program.

General Education

Refer to the [General Education Requirements](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5Ccatgened.htm) for Bachelor of Science degrees. Consult with your advisor for specific general education guidelines.

Manufacturing Engineering Technology

Course Requirements for BS Degree

To be taken in addition to the courses required for the [AAS Degree in Manufacturing Engineering Technology](file:///%5C%5CCOASTSRV%5CMET_CMT%5CVOL2%5CMET-SHAR%5CMFET%20-%20ABET%202009%5CContinuous%20Improvement%5C~mfeta.htm).

Manufacturing Engineering Technology Courses Required (~~45~~ 43 credit hours)

* MFET 3010 Tool Design (3)
* MFET 3320 Machine Design (2)
* MFET 3340/3340L Applied Fluid Power (3)
* MFET 3350/3350L Plastic & Composite Manufacturing (4)
* MFET 3550 Manufacturing Supervision (3)
* MFET 3610 Machining Processes Lecture/Lab II (3)
* MFET 3710/3710L Computer Aided Manufacturing and Rapid Prototyping (3)
* MFET 3810 Statistical Process Control and Reliability (3)
* MFET 3910 Six Sigma Methods and Tools in Manufacturing (4)
* MFET 4580/4850L Process Automation (3)
* MFET 4590 Production Planning and Process Control (3)
* MFET 4610 Senior Project Planning and Estimating (3)
* MFET 4610L Senior Project Lab (2)
* MFET 4620L Senior Project Lab (2)
* MFET 4995 Certified Manufacturing Technologist (CMfgT) Exam (1)
* MET 3150 Engineering Technology Materials (3)
* MET 3400 Machine Design (3)
* DGET 3100 Tool Design (3)

Technical Electives for the Manufacturing Engineering Technology BS degree (3 credit hours).

A minimum of 3 credit hours of technical electives chosen from the following list are required.

* DGET 3460 Parametric Design Graphics (3)
* DGET 3470 Applications in CAD (3)
* MFET 2850 CNC/CAM for Plastics & Composites (3)
* MFET 2860 Plastic/Composites Material & Properties (3)
* MFET 2870 Design of Plastic/Composites Parts (3)
* MFET 3830 Reinforced Plastics/Advanced Composites (3)
* MFET 3460/3460L Engineering Design using Solid Modeling (3)
* MFET SI4600 Manufacturing Simulation (2)
* MFET 3890 or MFET 4890 Cooperative Work Experience (3)
* SST 3103 Sales Personalities and Profiles (3)
* SST 3702 Developing Team Leadership (2)
* SST 4203 Ethical Sales and Service (3)
* Other classes approved by your MFET advisor

Please note that there are additional General Education requirements to complete the degree.

Suggested Course Sequence for the Manufacturing Engineering Technology BS Degree.

The following suggested course sequence is provided to assist students in planning their schedules. Use this only as a guideline and be sure to consult with your advisor.

|  |  |
| --- | --- |
| Freshman Fall | Freshman Spring |
| MFET 1210 MFET 1150 | 3 1 | MFET 1150 Computer & InformationLiteracy Exams or Courses | 1 2/4 |
| DGET 1060 MFET 1210 | 3 | DGET 1160 | 3 |
| Computer & Information DGET 1060 Literacy Exams or Courses | 2/4 3 | ENGL EN2010 | 3 |
| ENGL EN1010 | 3 | MATH SI1210 | 4 |
| MATH QL1080 | 5 | CHEM PS/SI1110 | 5 |
| **Total Hours** | 16 **15** | **Total Hours** | 16 **17** |
|  |
| Sophomore Fall | Sophomore Spring |
| MFET 2150/L | 3 | MFET SI2300 | 5 |
| DGET 2460 | 3 | MFET SI2440/L | 3 |
| ECON SS1010 | 3 | MFET SI2410 | 3 |
| COMM HU2110 | 3 | Gen Ed HU | 3 |
| PHYS PS/SI2010 or 2210 | 5 | CEET 1110 CEET 1850 | 2 4 |
| **Total Hours** | **17** | **Total Hours** | 16 **15** |
|  |
| Junior Fall | Junior Spring |
| MFET 3320 MET 3400 | 2 3 | MET 3150 | 3 |
| MFET 3340/L | 3 | MFET 3910 | 4 |
| MFET 3350/L | 4 | MFET 3710/L | 3 |
| MFET 3010 DGET3100 | 3 | MFET 3550 | 3 |
| MFET 3810 | 3 | MFET 3610 Gen Ed CA/HU/DV | 3 |
| **Total Hours** | 15 **16** | **Total Hours** | **16** |
|  |
| Senior Fall | Senior Spring |
| MFET 4580/L | 3 | MFET 4620L | 2 |
| MFET 4610 | 3 | MFET Elective | 3 |
| MFET 4610L | 2 | MFET 4995 | 1 |
| HIST 1700 | 3 | Gen Ed SS | 3 |
| Gen Ed LS | 3 | Gen Ed CA/HU | 3 |
|  |  | MFET 4590 | 3 |
| **Total Hours** | **14** | **Total Hours** | **15** |

## Welding Engineering Technology Emphasis

### Course Requirements for BS Degree

To be taken in addition to the courses required for the [AAS Degree in Manufacturing Engineering Technology](http://documents.weber.edu/catalog/current/~mfeta.htm) with an Emphasis in Welding Engineering Technology.

#### Manufacturing Engineering Technology Courses Required (46 credit hours)

* MFET 2670/2670L GMA, FCA and GTA Welding (3)
* MFET 3060 Codes, Weld Inspection, and Quality Assurance (3)
* MFET 3550 Manufacturing Supervision (3)
* MFET 3630/3630L Fusion Joining and Brazing Processes (3)
* MFET 3750/3750L Welding Metallurgy I (3)
* MFET 3760/3760L Welding Metallurgy II (3)
* MFET 3810 Statistical Process Control and Reliability (3)
* MFET 3820 Nondestructive Testing (3)
* MFET 3910 Six Sigma Methods and Tools in Manufacturing (4)
* MFET 4090 Welding Power Sources (2)
* MFET 4310 Corrosion and Corrosion Control (2)
* MFET 4580/4850L Process Automation (3)
* MFET 4590 Production Planning and Process Control (3)
* MFET 4610 Senior Project Planning and Estimating (3)
* MFET 4610L Senior Project Lab (2)
* MFET 4620L Senior Project Lab (2)
* MFET 4995 Certified Manufacturing Technologist (CMfgT) Exam Review (1)

#### Technical Electives (3 credit hours minimum)

A minimum of 3 credit hours of technical electives chosen from the following list are required.

* DGET 3470 Applications in CAD (3)
* MFET 3350/3350L Plastic and Composite Manufacturing (4)
* MFET 3460/3460L Engineering Design using Solid Modeling (3)
* MFET 3610 Machining Processes Lecture/Lab II (3)
* MFET SI4600 Manufacturing Simulation (2)
* MFET 3890 or MFET 4890 Cooperative Work Experience (3)
* SST 3702 Developing Team Leadership Skills (2)
* Other classes approved by your MFET advisor

### Suggested Course Sequence for the Welding Engineering Technology Emphasis BS Degree.

The following suggested course sequence is provided to assist students in planning their schedules. Use this only as a guideline and be sure to consult with your advisor.

|  |  |
| --- | --- |
| Freshman Fall | Freshman Spring |
| MFET 1210 | 3 | DGET 1160 | 3 |
| DGET 1060 | 3 | ENGL EN2010 | 3 |
| Computer & InformationLiteracy Exams or Courses | 2/4 | MATH SI1210 | 4 |
| ENGL EN1010 | 3 | CHEM PS/SI1110 | 5 |
| MATH QL1080 | 5 |   |   |
| **Total Hours** | **16** | **Total Hours** | **15** |
|   |
| Sophomore Fall | Sophomore Spring |
| MFET 2150/L | 3 | MFET SI2300 | 5 |
| DGET 2460 | 3 | MFET SI2410 | 3 |
| ECON SS1010 | 3 | CEET 1850 | 4 |
| COMM HU2110 | 3 | Gen Ed HU | 3 |
| PHYS PS/SI2010 or 2210 | 5 |   |   |
| **Total Hours** | **17** | **Total Hours** | **15** |
|   |
| Junior Fall | Junior Spring |
| MFET 3630/L | 3 | MFET 2670 | 3 |
| MFET 3060 | 3 | MFET 3910 | 4 |
| MFET 3750/L | 3 | MFET 3820 | 3 |
| MFET 3810 | 3 | MFET 3550 | 3 |
| MFET Elective | 3 | MFET 3760/L | 3 |
| **Total Hours** | **15** | **Total Hours** | **16** |
|   |
| Senior Fall | Senior Spring |
| MFET 4580/L | 3 | MFET 4620L | 2 |
| MFET 4610 | 3 | MFET 4090 | 2 |
| MFET 4610L | 2 | MFET 4310 | 2 |
| HIST 1700 | 3 | Gen Ed SS | 3 |
| Gen Ed LS | 3 | Gen Ed CA/HU | 3 |
|   |   | MFET 4590 | 3 |
|   |   | MFET 4995 | 1 |
| **Total Hours** | **14** | **Total Hours** | **16** |

## Plastic and Composite Engineering Technology Emphasis

### Course Requirements for BS Degree

To be taken in addition to the courses required for the [AAS Degree in Manufacturing Engineering Technology](http://documents.weber.edu/catalog/current/~mfeta.htm) with an Emphasis in Plastic and Composite Engineering Technology.

#### Manufacturing Engineering Technology Courses Required (45 credit hours)

* MFET 3340/3340L Applied Fluid Power (3)
* MFET 3350/3350L Plastic and Composite Manufacturing (3)
* MFET 3550 Manufacturing Supervision (3)
* MFET 3810 Statistical Process Control and Reliability (3)
* MFET 3830 Reinforced Plastics/Advanced Composite Lecture/Lab (3)
* MFET 3870 Mold Design and Process Strategies Lecture/Lab (3)
* MFET 3910 Six Sigma Methods and Tools in Manufacturing (4)
* MFET 4580/4580L Process Automation (3)
* MFET 4610 Senior Project Planning and Estimating (3)
* MFET 4610L Senior Project Lab (2)
* MFET 4620L Senior Project Lab (2)
* MFET 4850 Integration of Automated Systems (3)
* MFET 4995 Certified Manufacturing Technologist (CMfgT) Exam Review (1)
* MET 3150 Engineering Technology Materials (3)
* MET 4650 Thermal-fluid Sciences (5)

#### Business/Technical Writing Course Requirement (3 credit hours)

*Select one of the following*

* TBE 3250 Business Communication (3)
or
* ENGL 3100 Professional and Technical Writing (3)

#### Technical Electives (2 credit hours minimum)

A minimum of 3 credit hours of technical electives chosen from the following list are required.

* DGET 3470 Applications in CAD (3)
* MFET 3460/3460L Engineering Design using Solid Modeling (3)
* MFET 3610 Machining Processes Lecture/Lab II (3)
* MFET 3710/3710L Computer Aided Manufacturing and Rapid Prototyping (3)
* MFET SI4600 Manufacturing Simulation (2)
* MFET 3890 or MFET 4890 Cooperative Work Experience (3)
* SST 3702 Developing Team Leadership Skills (2)
* Other classes approved by your MFET advisor

### Suggested Course Sequence for the Plastic and Composite Engineering Technology Emphasis BS Degree.

The following suggested course sequence is provided to assist students in planning their schedules. Use this only as a guideline and be sure to consult with your advisor.

|  |  |
| --- | --- |
| Freshman Fall | Freshman Spring |
| MFET 1210 | 3 | CEET 1110 | 2 |
| DGET 1060 | 3 | DGET 1160 | 3 |
| Computer & InformationLiteracy Exams or Courses | 2/4 | ENGL EN2010 | 3 |
| ENGL EN1010 | 3 | MATH SI1210 | 4 |
| MATH QL1080 | 5 | CHEM PS/SI1110 | 5 |
| **Total Hours** | **16** | **Total Hours** | **17** |
|   |
| Sophomore Fall | Sophomore Spring |
| MFET 2850 | 3 | MFET SI2300 | 5 |
| MFET 2860 | 3 | MFET SI2410 | 3 |
| COMM HU2110 | 3 | MFET 2870 | 3 |
| PHYS PS/SI2010 or 2210 | 5 | ECON SS1010 | 3 |
| Gen Ed HU/CA | 3 |   |   |
| **Total Hours** | **17** | **Total Hours** | **14** |
|   |
| Junior Fall | Junior Spring |
| MFET 3350/L | 4 | MET 3150 | 3 |
| MFET 3810 | 3 | MFET 3830 | 3 |
| MFET 3870 | 3 | MFET 3910 | 4 |
| TBE 3250 or ENGL 3100 | 3 | MFET 3550 | 3 |
| Gen Ed LS | 3 | Gen Ed AI | 3 |
| **Total Hours** | **16** | **Total Hours** | **16** |
|   |
| Senior Fall | Senior Spring |
| MFET 3340/L | 3 | MET 4650 | 5 |
| MFET 4580/L | 3 | MFET 4620L | 2 |
| MFET 4610 | 3 | MFET 4850 | 3 |
| MFET 4610L | 2 | MFET 4995 | 1 |
| MFET Elective | 2 | Gen Ed CA/HU | 3 |
| Gen Ed SS/Diversity | 3 |   |   |
| **Total Hours** | **16** | **Total Hours** | **14** |

**MFET 2440. Computer Numeric Control (CNC) in Manufacturing (2) *S***

This course is designed for those who have little or no experience with CNC programming, setup or operations. Manual programming, APT programming, and Mazatrol (a conversational programming language) will be taught. In addition, an introduction to CAD/CAM will also be discussed. A three-hour lab, once a week is required. Prerequisites: MATH 1080 and MFET 1210 or MFET 1110, MFET 1030/1030L and MFET 1050/1050L. Co-requisite: MFET 2440L

#### MFET 3610. Machining Processes Lecture/Lab II (3) S

The manufacture and assembly of precision and interchangeable parts using conventional lathes, mills, drills, and grinders. Introduction to geometric dimensioning & tolerancing (GD&T), and advanced inspection techniques. Students will utilize lab time to complete assignments as required. One lecture per week and two 3-hour labs per week are required. Prerequisite: MFET 1210.

#### MFET SI4600. Manufacturing Simulation (2)

Discrete-event simulation of manufacturing systems, as a tool for developing more responsive systems. Simulation is shown to be a viable method of predicting outcomes in a stochastic system. Modeling assignments include: material handling constructs, probability distributions, logical branching, and report analysis. Prerequisites: MFET 3010, MFET SI2410 and MFET 4590.

#### MFET 4610. Senior Project Planning and Estimating (3) *F, S*

This is designed as a capstone course for students and is to be taken in the senior year of their program. The course will teach students fundamental principles in Project Management, Cost Estimating, and Engineering Economics that will be necessary to successfully complete their Senior Project experience. Students must apply and gain departmental approval before entering Senior Project. Approval is based on an interview with department faculty and fulfilling the prerequisites listed on the "Senior Project Requirements Sheet" available from the department secretary. All students approved for Senior project will register for this course regardless of individual project group assignments. Prerequisite; fulfillment AAS degree requirements. Co-requisite: MFET 4610 Lab for manufacturing students or DGET 4600 for design graphics students.

Did this program change receive unanimous approval within the Department? \_\_Yes\_\_

Explain any effects this program change will have on program requirements or enrollments in other departments including the Bachelor of Integrated Studies Program.

This change should have no effect on enrollments. The MFET, MET and DGET programs are all within the MMET department so the eliminations of MFET 3010 and 3320 only effect faculty load within the department.

Indicate the number of credit hoursfor course work within the program. (Do not include credit hours for General Education, SI, Diversity, or other courses unless those courses fulfill requirements within the proposed program.)

No change in overall credit hour requirements – 125 credit hours

Because of the confusion about core requirements versus general education the following summary has been provided showing courses required as “core” courses.

 APPROVAL PAGE

for: Manufacturing Engineering Technology

Approval Sequence:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Department Chair/Date (& BIS Director if applicable)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

College Curriculum Committee/Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Program Director or ATE Director (if applicable)/Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dean of College/Date

|  |
| --- |
| Courses required in programs leading to secondary undergraduate teacher certification must be approved by the University Council on Teacher Education before being submitted to the Curriculum Committee. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ University Council on Teacher Education/Date  |

|  |
| --- |
| Master’s program changes must be reviewed by the University Graduate Council before being submitted to the Curriculum Committee. I have read the proposal and discussed it with the program director.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_University Graduate Council Representative/Date |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

University Curriculum Committee/Date

Passed by Faculty Senate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date

Effective Date (As per PPM 4-2a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_