# *COURSE SLO STATEMENTS REPORT*

ECC - AUTOMATION, ROBOTICS, AND MANUFACTURING (ETEC, MTEC, MTT)

| Course ID | Course Name | Course SLO Title | Course SLO Statement | Course SLO Status | Input Date |
|---|---|---|---|---|---|
| ECC: ETEC 10 | Principles of Engineering Technology | SLO #1 Careers | Students will research engineering and engineering technology careers and create a report. | Active | 11/29/2013 |
| ECC: ETEC 10 | Principles of Engineering Technology | SLO #2 Marble Sorter | Students will build an automated marble sorter. | Active | 11/29/2013 |
| ECC: ETEC 10 | Principles of Engineering Technology | SLO #3 Six Simple Machines | Student will build the SMET project demonstrating the six simple machines. | Active | 11/29/2013 |
| ECC: ETEC 10A | Principles of Engineering Technology I | SLO #1 Careers | Students will research engineering and engineering technology careers and create a report. | Active | 11/29/2013 |
| ECC: ETEC 10A | Principles of Engineering Technology I | SLO #2 Six Simple Machines | Student will build the SMET project demonstrating the six simple machines. | Active | 11/29/2013 |
| ECC: ETEC 10A | Principles of Engineering Technology I | SLO #3 Mousetrap Car | Student will build a mousetrap-powered car. | Active | 11/29/2013 |
| ECC: ETEC 10B | Principles of Engineering Technology II | SLO #1 Marble Sorter | Students will build an automated marble sorter. | Active | 11/29/2013 |
| ECC: ETEC 10B | Principles of Engineering Technology II | SLO #2 Optimized Bridge | Students will build an optimized bridge using West Point Bridge simulation software. | Active | 11/29/2013 |
| ECC: ETEC 10B | Principles of Engineering Technology II | SLO #3 Bridge Construction & Testing | Students will build a bridge from popsicle sticks and load test their design to failure. | Active | 11/29/2013 |
| ECC: ETEC 12 | Introduction to Engineering Design | SLO #1 Missing Orthographic Views | Given an incomplete set of orthographic views of a simple machined part, the student shall be able to complete the given views and to construct the missing views. | Active | 11/29/2013 |
| ECC: ETEC 12 | Introduction to Engineering Design | SLO #2 Two and Three-Dimensional Models | Given a simple set of design constraints, the student shall be able utilize AutoCad Inventor software to produce a design package including two-dimensional drawings and three-dimensional models. | Active | 11/29/2013 |
| ECC: ETEC 12 | Introduction to Engineering Design | SLO #3 Design Project | Upon completion of the course, the student shall be able to take a design project from problem statement to final production drawings. | Active | 11/29/2013 |
| ECC: ETEC 12A | Introduction to Engineering Design I | SLO #1 Two and Three-Dimensional Models | Given a simple set of design constraints, the student shall be able utilize AutoCad Inventor software to produce a design package including two-dimensional drawings and three-dimensional models. | Active | 11/29/2013 |
| ECC: ETEC 12A | Introduction to Engineering Design I | SLO #2 Missing Orthographic Views | Given an incomplete set of orthographic views of a simple machined part, the student shall be able to complete the given views and to construct the missing views. | Active | 11/29/2013 |
| ECC: ETEC 12A | Introduction to Engineering Design I | SLO #3 Making Revisions | Given an incorrect design package and a list of needed revisions, the student shall be able to correctly and effectively incorporate the revisions into the drawings and models. | Active | 11/29/2013 |
| ECC: ETEC 12B | Introduction to Engineering Design II | SLO #1 Two and Three-Dimensional Models | Given a simple design problem statement and set of design constraints, the student shall be able utilize AutoCad Inventor software to produce a design package including two-dimensional drawings and three- | Active | 11/29/2013 |

| Course ID | Course Name | Course SLO Title | Course SLO Statement | Course SLO Status | Input Date |
|---|---|---|---|---|---|
| ECC: ETEC 12B | Introduction to Engineering Design II | SLO #1 Two and Three-Dimensional Models | dimensional models | Active | 11/29/2013 |
| ECC: ETEC 12B | Introduction to Engineering Design II | SLO #2 Design Project | Upon completion of the course, the student shall be able to take a design project from problem statement to final production drawings. | Active | 11/29/2013 |
| ECC: ETEC 12B | Introduction to Engineering Design II | SLO #3 Design Process | Upon completion of the course, the student shall be able to describe the steps of the design process and give examples of documents appropriate for each step. | Active | 11/29/2013 |
| ECC: ETEC 14 | Electronics for Engineering Technologists | SLO #1 Logic Equivalencies | Students will be able to use NAND and NOR Gates to configure and test logic equivalencies of: NOT, AND, OR, Exculsive OR and Exclusive NOR logic functions. | Active | 11/29/2013 |
| ECC: ETEC 14 | Electronics for Engineering Technologists | SLO #2 Logic Circuit | Using discrete TTL or CMOS Logic Gates to design, construct, and demonstrate a logic circuit which displays the students Birth Date using three toggle switches, various logic gates, and a single seven segment common anode LED display. | Active | 11/29/2013 |
| ECC: ETEC 14 | Electronics for Engineering Technologists | SLO #3 Karnaugh Map | Given a 4 bit (16 items) binary truth table, generate a Karnaugh Map to find a simplified solution. | Active | 11/29/2013 |
| ECC: ETEC 14 | Electronics for Engineering Technologists | SLO #4 Base 10 Conversion | Given a negative two’s complement binary number, convert this to a base 10 number. | Active | 11/29/2013 |
| ECC: ETEC 14A | Electronics for Engineering Technologists I | SLO #1 Logic Circuit | Using discrete TTL or CMOS Logic Gates to design, construct, and demonstrate a logic circuit which displays the students Birth Date using three toggle switches, various logic gates, and a single seven segment common anode LED display. | Active | 11/29/2013 |
| ECC: ETEC 14A | Electronics for Engineering Technologists I | SLO #2 Karnaugh Map | Given a 4 bit (16 items) binary truth table, generate a Karnaugh Map to find a simplified solution. | Active | 11/29/2013 |
| ECC: ETEC 14A | Electronics for Engineering Technologists I | SLO #3 Unsigned Binary Conversion | Given an unsigned binary number, convert this number to base 10. | Active | 11/29/2013 |
| ECC: ETEC 14A | Electronics for Engineering Technologists I | SLO #4 Series Circuit Resistance & Current | Given a series circuit with several resistors, calculate the total resistance; and given a voltage across this series circuit, calculate the current. | Active | 11/29/2013 |
| ECC: ETEC 14B | Electronics for Engineering Technologists II | SLO #1 Logic Equivalencies | Students will be able to use NAND and NOR Gates to configure and test logic equivalencies of: NOT, AND, OR, Exculsive OR and Exclusive NOR logic functions. | Active | 11/29/2013 |
| ECC: ETEC 14B | Electronics for Engineering Technologists II | SLO #2 Base 10 Conversion | Given a negative two’s complement binary number, convert this to a base 10 number. | Active | 11/29/2013 |
| ECC: ETEC 14B | Electronics for Engineering Technologists II | SLO #3 Asynchronous | Counter Design and build a basic 4-bit Asynchronous Counter. | Active | 11/29/2013 |
| ECC: ETEC 14B | Electronics for Engineering Technologists II | SLO #4 JK Flip Flop | Given a JK Flip Flop, identify what the output will be for all possible states of J and K. | Active | 11/29/2013 |
| ECC: ETEC 15 | Aerospace Engineering | SLO #1 Scale Model Aircraft Wing | Students will design, build and test a scale model aircraft wing. | Active | 08/24/2015 |
| ECC: ETEC 15 | Aerospace Engineering | SLO #2 Aerospace Construction Materials | Students will perform destructive tests on aerospace construction materials. | Active | 08/24/2015 |

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| ECC: ETEC 15 | Aerospace Engineering | SLO #3 Positive and Negative Gravity Forces | Students will conduct, measure and evaluate positive and negative gravity forces. | Active | 08/24/2015 |
| ECC: ETEC 15 | Aerospace Engineering | SLO #4 Intelligent Robotic Vehicles | Students will construct and demonstrate intelligent robotic vehicles incorporating mechanical, electronic and computer based systems. | Active | 08/24/2015 |
| ECC: ETEC 15A | Aerospace Engineering I | SLO #1 Scale Model Aircraft Wing | Students will design, build and test a scale model aircraft wing. | Active | 08/24/2015 |
| ECC: ETEC 15A | Aerospace Engineering I | SLO #2 Propulsion Systems Analysis | Students will conduct propulsion systems analysis based on data obtained through calculations and computer simulations. | Active | 08/24/2015 |
| ECC: ETEC 15B | Aerospace Engineering II | SLO #1 Aerospace Construction Materials | Students will perform destructive tests on aerospace construction materials. | Active | 08/24/2015 |
| ECC: ETEC 15B | Aerospace Engineering II | SLO #2 Intelligent Robotic Vehicles | Students will construct and demonstrate intelligent robotic vehicles incorporating mechanical, electronic and computer based systems. | Active | 08/24/2015 |
| ECC: ETEC 15B | Aerospace Engineering II | SLO #3 Positive and Negative Gravity Forces | Students will conduct, measure and evaluate positive and negative gravity forces. | Active | 08/24/2015 |
| ECC: ETEC 16 | Computer Integrated Manufacturing | SLO #1  Solid Modeling | Students will measure and solid model a provided assembly. | Active | 11/29/2013 |
| ECC: ETEC 16 | Computer Integrated Manufacturing | SLO #2  Robotic Arm: Palletize | Students will program a robot arm to palletize parts. | Active | 11/29/2013 |
| ECC: ETEC 16 | Computer Integrated Manufacturing | SLO #3 CNC Mill: Initials | Students will program a CNC mill to engrave their initials in a block of wood. | Active | 11/29/2013 |
| ECC: ETEC 16A | Computer Integrated Manufacturing I | SLO #1 Solid Modeling | Students will measure and solid model a provided assembly. | Active | 11/29/2013 |
| ECC: ETEC 16A | Computer Integrated Manufacturing I | SLO #2 CNC Mill: Initials | Students will program a CNC mill to engrave their initials in a block of wood. | Active | 11/29/2013 |
| ECC: ETEC 16A | Computer Integrated Manufacturing I | SLO #3 MasterCam Toolpath | Student will create a toolpath using MasterCam from a given solid model. | Active | 11/29/2013 |
| ECC: ETEC 16B | Computer Integrated Manufacturing II | SLO #1 Robotic Arm: Palletize | Students will program a robot arm to palletize parts. | Active | 11/29/2013 |
| ECC: ETEC 16B | Computer Integrated Manufacturing II | SLO #2 Robotic Arm: Tool Frame | Students will program a tool frame (tool coordinates) for a robot arm. | Active | 11/29/2013 |
| ECC: ETEC 16B | Computer Integrated Manufacturing II | SLO #3 Robotic Arm: User Frame | Students will program a user frame (workpiece coordinates) for a robot arm. | Active | 11/29/2013 |
| ECC: ETEC 18 | Engineering Design and Development | SLO #1 Engineering Notebook | The student will use the United States Patent office Protocol, Engineering Notebook, for compiling design data, testing results, dates, signatures, page format, and Mechanical Drawings. | Active | 11/29/2013 |
| ECC: ETEC 18 | Engineering Design and Development | SLO #2 Research Methodology & Technology | After carefully defining a technical problem, the student will use both research methodology and technology to choose, build, validate and justify an engineering solution to a design challenge | Active | 11/29/2013 |
| ECC: ETEC 18 | Engineering Design and Development | SLO #3 Tech Review Presentation | The student will make a formal presentation to defend their research, design criteria, prototype, applications, and conclusions to a technical review panel. | Active | 11/29/2013 |

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| ECC: ETEC 18A | Engineering Design and Development I | SLO #1 Engineering Notebook | Students will develop and maintain an engineering notebook. This legal document contains all the information that is relevant to its purpose of original design. It includes contact information, correspondence, telephone logs, sketches and drawings, reference citations, collected data, and a chronological listing of the events dates and time, connected to the journal's purpose. Documentation is a vital part of engineering. In the case of liability suits, good documentation has kept many engineering firms out of court because it proved there was no wrong doing on their part. | Active | 07/01/2013 |
| ECC: ETEC 18A | Engineering Design and Development I | SLO #2 Research Methodology & Technology | After carefully defining a technical problem, the student will use both research methodology and technology to choose, build, validate and justify an engineering solution to a design challenge. | Active | 11/29/2013 |
| ECC: ETEC 18A | Engineering Design and Development I | SLO #3 Design Project | The student will employ the use of technologies and knowledge learned, in this and previous ETECH courses, to construct and test their design project. | Active | 11/29/2013 |
| ECC: ETEC 18B | Engineering Design and Development II | SLO #1 Redefining & Justifying Alternative Solutions | The students will be able to conduct preliminary patent searches to determine the originality of their alternative choices. | Active | 11/29/2013 |
| ECC: ETEC 18B | Engineering Design and Development II | SLO #2 Project Tracking | The student will employ industrial scheduling techniques to demonstrate project tracking. | Active | 11/29/2013 |
| ECC: ETEC 18B | Engineering Design and Development II | SLO #3 Tech Review Presentation | The student will make a formal presentation to defend their research, design criteria, prototype, applications, and conclusions to a technical review panel. | Active | 11/29/2013 |
| ECC: MTEC 70 | Basic Robotics | SLO #1 Robot Types & Components | The student will be able to define 'robot', distinguish between the different types of robots, identify the purposes of robots and identify the electronic and mechanical components of a robot. Students will also be able to interpret the different number systems used by robots and convert numerical data between ASCII, binary, decimal and hexadecimal numbers. | Active | 11/29/2013 |
| ECC: MTEC 70 | Basic Robotics | SLO #2 Programming & Debugging | The student will be able to compose logical instructions such as basic navigation and maneuvers for a robot to follow, debug and compile instruction codes onto the robot's micro-controller, and test and run the functional prototype robot. | Active | 11/29/2013 |
| ECC: MTEC 70 | Basic Robotics | SLO #3 Robot Build Final Project | By the end of the course, the student will be able to build or assemble a prototype robot, build electronic circuits and attach electronic devices (e.g., light-emitting diodes, piezospeaker) to the micro-controller, and equip the robot with DC motors or servo motors. | Active | 11/29/2013 |
| ECC: MTEC 75A | Integrated Robotic and Automated Technologies I | SLO #1 Programming a Robot | Students will correctly program a robot to travel 5 feet turn 180 degrees and return to the start point. | Active | 11/29/2013 |
| ECC: MTEC 75A | Integrated Robotic and Automated Technologies I | SLO #2 Motors & Motion | The student will be able to use the concepts of torque, inertia, pressure, and force to design appropriate gear and drive trains for robotic systems as well as modify simple Servo Motors to obtain a determined objective. | Active | 11/29/2013 |
| ECC: MTEC 75A | Integrated Robotic and Automated Technologies I | SLO #3 Embedded Electronic Devices | Students will be able to compare and contrast electrical motor configurations, transducers, sensors, PWM (Pulse Width Modulation), | Active | 11/29/2013 |

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| ECC: MTEC 75A | Integrated Robotic and Automated Technologies I | SLO #3 Embedded Electronic Devices | and associated electronics imbedded devices to build robotic systems in accordance with industry standard schematics and diagrams. | Active | 11/29/2013 |
| ECC: MTEC 75B | Integrated Robotic and Automated Technologies II | SLO #1 Programming a Robot | Students will correctly program a robot to travel a total of 10 feet. Within the travel the robot will reach maximum velocity by smoothly accelerating and deaccelerating. | Active | 11/29/2013 |
| ECC: MTEC 75B | Integrated Robotic and Automated Technologies II | SLO #2 Interface Circuits | The student will be able to build simple interface circuits capable of driving electromechanical devices such as motors, solenoids, and relays in accordance with industry standard manufacturing processes. | Active | 11/29/2013 |
| ECC: MTEC 75B | Integrated Robotic and Automated Technologies II | SLO #3 Programming and Troubleshooting | The student will be able to program robotic systems to perform operational tasks using programming languages such as PBASIC and diagnose hardware and software errors in robotic systems. | Active | 11/29/2013 |
| ECC: MTT 101 | Introduction to Conventional and CNC Machining | SLO #1 Measuring and Recording Dimensions | Given a ground steel block of known and verified dimensions, measure and record the three dimensions of the block using a micrometer to a precision of .001 inches. | Active | |
| ECC: MTT 101 | Introduction to Conventional and CNC Machining | SLO #2 Blue Prints | Given a Blue Print, student will use all manufacturing equipment available to manufacture the project on the Blue Print to noted specifications. | Active | 11/29/2013 |
| ECC: MTT 101 | Introduction to Conventional and CNC Machining | SLO #3 Orthographic Projections | The student will be able to solve shop math problems and interpret orthographic projection engineering drawings that incorporate geometric dimensioning and tolerancing to produce assigned work within the tolerances specified on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 103 | Conventional and CNC Turning | SLO #1 Lathe Dimension | Students will turn a part on the lathe to a given drawing dimension to an accuracy of +/- .001 inches. | Active | 11/29/2013 |
| ECC: MTT 103 | Conventional and CNC Turning | SLO #2 CNC Lathe Programs | Read, de-bug and edit CNC lathe word address programs and enter Manual Data Input (MDI) CNC word address lathe programs to produce work within the tolerances on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 103 | Conventional and CNC Turning | SLO #3 Shop Math | Solve shop math problems that include speeds and feeds, trigonometry, tapers, threads, engineering drawing interpretation and calculations relating to machine tools. | Active | 11/29/2013 |
| ECC: MTT 105 | Conventional and CNC Milling | SLO #1 Squaring the Block | Given a rough-cut aluminum block, square the block using a milling machine, cutters and measurement tools. | Active | 11/29/2013 |
| ECC: MTT 105 | Conventional and CNC Milling | SLO #2 Power Machines | Using proper safety procedures and precautions, students will be able to set up and operate vertical and horizontal milling machines, rotary tables, indexing and dividing heads, and vertical milling machines to produce assigned work within the tolerances specified on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 105 | Conventional and CNC Milling | SLO #3 Soft Jaws Project | Students will be able to read, de-bug and edit CNC vertical milling machine word address programs and to enter Manual Data Input (MDI) CNC word address milling machine programs to produce vise soft jaws for holding work to produce parts within the tolerances specified on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 107 | Advanced Manufacturing Processes | SLO #1 Pros and Cons of Cuttings | Record the benefits and downsides of the following processes: Waterjet cutting, EDM wire cutting, Plasma cutting and Laser cutting. | Active | 11/29/2013 |
| ECC: MTT 107 | Advanced Manufacturing | SLO #2 Measuring & Inspection | Students will be able to select and use cylindrical squares, precision | Active | 11/29/2013 |

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| ECC: MTT 107 | Processes | SLO #2 Measuring & Inspection | height gauges, vernier bevel protractors, gauge blocks and sine bars to inspect assigned work within the tolerances specified on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 107 | Advanced Manufacturing Processes | SLO #3 Grinding and Cutting Machinery | Using proper safety procedures and precautions, students will be able to set up and operate surface grinders, cylindrical grinders, coordinate measuring machines, optical comparators, sinkers, wire electrical discharge machines, and abrasive water jet machines to produce assigned work within the tolerances specified on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 10A | Introduction to CAD/CAM | SLO #1 High Speed Steel End Mill | Student will calculate the correct rotations per minute (RPM) for a high speed steel end mill using the correct cutting speed and end mill diameter. | Active | 11/29/2013 |
| ECC: MTT 10A | Introduction to CAD/CAM | SLO #2 2-D Computer Drafting | Students will be able to identify, differentiate between and use computer drafting system hardware, components, software systems and operating systems to create points, lines circles, dimensions and notes in two dimensions. | Active | 11/29/2013 |
| ECC: MTT 10A | Introduction to CAD/CAM | SLO #3 CNC Machined Objects | Students will be able to input, edit, print and plot a CNC program and create toolpaths for two-axis CNC machines to create objects within specified tolerances. | Active | 11/29/2013 |
| ECC: MTT 10B | Computer Numerical Control Programming | SLO #1 Inputting a Program | Student will input a program in to a Computer Numerical Control (CNC) machine. | Active | 11/29/2013 |
| ECC: MTT 10B | Computer Numerical Control Programming | SLO #2 Write, Edit and Input Programs | Students will be able to write and alter word address programs for three-axis milling machines and input and edit programs into a CNC machine using manual input keyboard or local input. | Active | 11/29/2013 |
| ECC: MTT 10B | Computer Numerical Control Programming | SLO #3 Programming Routines & Loops | Students will be able to write word address programs using routines, loops and macro subroutines as well as perform simple contouring operations on a CNC lathe. | Active | 11/29/2013 |
| ECC: MTT 10J | Numerical Control Graphics Programming | SLO #1 Geometric Elements | Student will create geometric elements such as points, lines, and circles. | Active | 11/29/2013 |
| ECC: MTT 10J | Numerical Control Graphics Programming | SLO #2 File Manipulation | Students will be able to utilize computer operating systems to manipulate files, convert geometry from CAD databases to numerical control part geometry, and obtain listings and graphic plots. | Active | 11/29/2013 |
| ECC: MTT 10J | Numerical Control Graphics Programming | SLO #3 Tool Motion Routines | Students will be able to create, manipulate and edit tool motion routines including: turning, boring, drilling, profiling, pocket roughing and turning, using interactive graphic techniques. | Active | 11/29/2013 |
| ECC: MTT 10K | 3D Numerical Control Graphics Programming | SLO #1 Creating a 3D Solid Model | Student will correctly create a 3D solid model in CAD software and practice roughing the 3D surface using CAM software. | Active | 11/29/2013 |
| ECC: MTT 10K | 3D Numerical Control Graphics Programming | SLO #2 4th and 5th Axis Positioning | The student will be able to describe and demonstrate appropriate 3D editing operations, and use 4th and 5th axis positioning and simultaneous rotary axis machining operations on 3D process models. | Active | 11/29/2013 |
| ECC: MTT 10K | 3D Numerical Control Graphics Programming | SLO #3 Surfacing | The student will be able to construct appropriate profile geometry on which to base 3D surfaces, recognize what surface type would be required, and practice roughing of 3D surfaces. | Active | 11/29/2013 |

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|---|---|---|---|---|---|
| ECC: MTT 16 | General Metals | SLO #1 HSS Cutting Speed and Mill Diameter | Student will calculate the correct rotations per minute (rpm) for a high speed steel end mill using the correct cutting speed and end mill diameter. | Active | 11/29/2013 |
| ECC: MTT 16 | General Metals | SLO #2 Tool Selection & Use | Using proper safety procedures and precautions, students will be able to select correct metal working hand tools, measure and layout, utilizing semi-precision and precision measuring tools, and produce projects or exercises within the tolerances specified on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 16 | General Metals | SLO #3 Casting, Welding & Cutting | Using proper safety procedures and precautions, students will be able to operate foundry equipment to produce aluminum castings and to operate welding equipment to braze, weld and cut materials to produce projects within tolerances specified on engineering drawings. | Active | 11/29/2013 |
| ECC: MTT 2 | Manufacturing Print Reading | SLO #1 Orthographic Orientation | Student will correctly sketch a part in orthographic orientation. | Active | 11/29/2013 |
| ECC: MTT 2 | Manufacturing Print Reading | SLO #2 Multi-View Orthographic Drawings | Demonstrate basic understanding or Multi-View Orthographic drawings, including part visualization and interpretation and the mechanics of: dimensioning, tolerancing and drawing. | Active | 11/29/2013 |
| ECC: MTT 2 | Manufacturing Print Reading | SLO #3 Total Position Tolerance | Gain a basic understanding of GD&T (Geometric Dimensioning and Tolerancing) practices. Presented with a Feature Control Frame, students will calculate total positional tolerance of a hole utilizing Maximum Material Condition, Least Material Condition and Regardless of Feature Size Modifiers. | Active | 11/29/2013 |
| ECC: MTT 40 | Machine Shop Calculations | SLO #1 HSS Setting the Speed | Student will calculate the correct feed per minute for a high speed steel (HSS) end mill using the correct feed per tooth (CL), rotations per minute (RPM), and number of teeth. | Active | 11/29/2013 |
| ECC: MTT 40 | Machine Shop Calculations | SLO #2 Screw Threading | The student will be able to compute and perform screw threading operations to include 60 degree thread formulas, acme thread formulas and calculations of the parts of a screw thread to industry standard tolerances. | Active | 11/29/2013 |
| ECC: MTT 40 | Machine Shop Calculations | SLO #3 Geometric Figures | The student will be able to sketch geometric figures to include perpendicular bisectors, parallel and tangent lines and use trigonometric principles to solve problems that include similar triangles, isosceles triangles, right triangles and polygons. | Active | 11/29/2013 |
| ECC: MTT 46 | Basic Machine Tool Operation | SLO #1 HSS Setting the Milling Machine | Student will calculate the correct rotations per minute (rpm) for a high speed steel end mill using the correct cutting speed and end mill diameter. Then the student will demonstrate setting the speed of the milling machine. | Active | 11/29/2013 |
| ECC: MTT 46 | Basic Machine Tool Operation | SLO #2 Micrometers & Measuring | The student will be able to use and read micrometers, vernier measuring tools, semi-precision and precision measuring tools to measure and produce projects within the tolerances specified by engineering requirements. | Active | 11/29/2013 |
| ECC: MTT 46 | Basic Machine Tool Operation | SLO #3 Power Machines | Using proper safety procedures and precautions, students will be able to set up and operate drilling machines, engine lathes, vertical and horizontal milling machines, and grinding machines to produce projects within the tolerances specified by engineering requirements. | Active | 11/29/2013 |