Program Name: Mechanical Engineering Technology with Option in Computer-Aided Design	Outcomes	EGT 101 Computerized Spreadsheets for Engineers	EGT 136 Mechanics	EGT 231 Strength of Materials
Outcome #1	Student will be able to apply for an entry level position at an engineering firm or manufacturing facility.	Students will have gained the skills necessary to prepare them to effectively use Microsoft Excel and the graphing calculator in an industry environment.	Students will have gained the skills necessary to prepare them to apply foundational engineering concepts to solve technical problems in an industry environment.	Students will have gained the skills necessary to prepare them to apply foundational engineering concepts to solve technical problems in an industry environment.
Outcome #2	Student will be able to transfer to an applied engineering technology/manufacturing baccalaureate degree major.	Students will have gained the skills necessary to prepare them to effectively use Microsoft Excel and the graphing calculator in a four-year transfer program.	Students will have gained the skills necessary to prepare them to apply foundational engineering concepts to solve technical problems in a four-year transfer program setting.	Students will have gained the skills necessary to prepare them to apply foundational engineering concepts to solve technical problems in a four-year transfer program setting.
Outcome #3	Student will have all the skills necessary to function as a contributing member of an engineering team.	Students will have worked in a team to create an Excel workbook that solves a common engineering problem.	Students will have worked in a team to solve Mechanics problems.	Students will have worked in a team to solve Strength of Materials problems.
Outcome #4	Student will be able to apply current knowledge and practices to solve specific technical problems.	The student should be able to read and understand technical information/textbook, apply mathematical concepts across broad ranges or classes of problems, identify the correct approach to solve particular math problems, categorize different types of problems that are solved by the same techniques, categorize different techniques that may be used to solve the same problem, utilize current technology to reinforce mathematical concepts, demonstrate proficiency at the use of a graphing calculator, and utilize an Excel spreadsheet for data analysis and decision-making.	Upon successful completion of this course, students will be able to solve triangles, solve two and three simultaneous equations, add two-dimensional vectors, find force resultants in two dimensions, solve for external reactions using equilibrium, find forces in trusses, solve for forces on two-dimensional frames, analyze friction problems including dry, belt, and screw friction, solve problems with concurrent spatial force systems, find the centroid of a body, find the center of gravity of a body, and find the area moment of inertia.	Upon successful completion of this course, students will be able to calculate bearing stresses and find shear stresses from shearing forces, understand strain and Hooke's law, find shear stresses from applied torque, draw shear and bending moment diagrams, use the flexure formula to find stresses in beams, find transverse shear stresses, analyze composite beams, select beams for external load conditions, calculate the deflection of beams from point and continuous loads, use Mohr's circle to find combined stresses, and design axially loaded columns.
Outcome #5	Student will be able to create, modify, and apply current industry standards to CAD drawings.	Students will create tables in Microsoft Excel that can be used to transfer data to AutoCAD drawings.	Students will use current industry standards and reference tables of industry-standard technical data to solve engineering problems.	Students will use current industry standards and reference tables of industry-standard technical data to solve engineering problems.

Program Name: Mechanical Engineering Technology with Option in Computer-Aided Design	Outcomes	CAD 152 Computer-Aided Design I	CAD 153 Computer-Aided Design II	CAD 226 Computer-Aided Design III: Architectural
Outcome #1	Student will be able to apply for an entry level position at an engineering firm or manufacturing facility.	Upon completion of this course, students will be able to identify, apply, and discuss the principles and elements of computer-aided design, create new CAD drawings using the fundamental drawing and modifying commands, edit and modify existing CAD drawings, utilize the CAD layering system to organize data and control display, plot CAD drawings to create a portfolio of original work, be familiar with the field of mechanical engineering and architectural drafting, and apply appropriate industry standards to the computer-aided design process. Each of these outcomes will prepare a student for an entry level position as a computer-aided designer/drafter an at engineering or manufacturing facility.	Upon completion of this course, students will be able to accurately and completely dimension multi-view drawings according to ASME standards, create and apply different dimensioning styles according to drawing needs, apply tolerances to a drawing, draw a section view and apply a hatch pattern to the view, draw and dimension a variety of 3D problems, and create an electronic portfolio of their best works. Each of these outcomes will prepare a student for an entry level position as a computer-aided designer/drafter an at engineering or manufacturing facility.	Upon completion of this course, students will be able to create a set of working residential drawings and create a portfolio of construction/architectural drawings for a residence. Each of these outcomes will prepare a student for an entry level position as a computer-aided designer/drafter at an engineering/architectural firm or construction company.
Outcome #2	Student will be able to transfer to an applied engineering technology/manufacturing baccalaureate degree major.	Upon completion of this course, students will be able to identify, apply, and discuss the principles and elements of computer-aided design, create new CAD drawings using the fundamental drawing and modifying commands, edit and modify existing CAD drawings, utilize the CAD layering system to organize data and control display, plot CAD drawings to create a portfolio of original work, be familiar with the field of mechanical engineering and architectural drafting, and apply appropriate industry standards to the computer-aided design process. Each of these outcomes will prepare a student for transfter to a four-year school.	Upon completion of this course, students will be able to accurately and completely dimension multi-view drawings according to ASME standards, create and apply different dimensioning styles according to drawing needs, apply tolerances to a drawing, draw a section view and apply a hatch pattern to the view, draw and dimension a variety of 3D problems, and create an electronic portfolio of their best works. Each of these outcomes will prepare a student for transfter to a four-year school.	Students will have gained the computer-aided design skills necessary to transfer to a four-year school for Civil Engineering Technology and/or Building Construction.
Outcome #3	Student will have all the skills necessary to function as a contributing member of an engineering team.	Students will have worked in teams to create a series of mechanical and/or architectural drawings.	Students will have worked in teams to create a series of mechanical drawings.	Students will have worked in teams to create a series of architectural drawings.
Outcome #4	Student will be able to apply current knowledge and practices to solve specific technical problems.	Upon completion of this course, students will be familiar with the field of mechanical engineering and architectural drafting and be able to apply appropriate industry standards to the computer-aided design process.	Upon completion of this course, students will be familiar with the field of mechanical drafting and be able to apply appropriate industry standards to the computer-aided design process.	Upon completion of this course, students will be familiar with the field of architectural drafting and be able to apply appropriate industry standards to the computer-aided design process.
Outcome #5	Student will be able to create, modify, and apply current industry standards to CAD drawings.	Upon completion of this course, students will be able to identify, apply, and discuss the principles and elements of computer-aided design, create new CAD drawings using the fundamental drawing and modifying commands, dit and modify existing CAD drawings, utilize the CAD layering system to organize data and control display, plot CAD drawings to create a portfolio of original work, be familiar with the field of mechanical engineering and architectural drafting, and apply appropriate industry standards to the computer-aided design process.	Upon completion of this course, students will be able to accurately and completely dimension multi-view drawings according to ASME standards, create and apply different dimensioning styles according to drawing needs, apply tolerances to a drawing, draw a section view and apply a hatch pattern to the view, draw and dimension a variety of 3D problems, and create an electronic portfolio of their best works.	Upon completion of this course, students will be able to create a set of working residential drawings and create a portfolio of construction/architectural drawings for a residence.

Program Name: Mechanical Engineering Technology with Option in Computer-Aided Design	Outcomes	CAD 228 Computer-Aided Design III: Mechanical			
Outcome #1	Student will be able to apply for an entry level position at an engineering firm or manufacturing facility.	Upon completion of this course, students will be able to create solid models using parametric based software, create assemblies using created parts and the content center, create working drawings, exploded drawings, and parts lists of assemblies, create animations of solid model assemblies, and use software to analyze material properties and perform finite element analysis. Each of these outcomes will prepare a student for an entry level position as a computer-aided designer/drafter an at engineering or manufacturing facility.			
Outcome #2	Student will be able to transfer to an applied engineering technology/manufacturing baccalaureate degree major.	Students will have gained the computer-aided design skills necessary to transfer to a four-year school for Mechanical Engineering Technology.			
Outcome #3	Student will have all the skills necessary to function as a contributing member of an engineering team.	Students will have worked in teams to create a series of three-dimensional mechanical drawings.			
Outcome #4	Student will be able to apply current knowledge and practices to solve specific technical problems.	Upon completion of this course, students will be familiar with the field of mechanical drafting and be able to apply appropriate industry standards to the computer-aided design process.			
Outcome #5	Student will be able to create, modify, and apply current industry standards to CAD drawings.	Upon completion of this course, students will be able to create solid models using parametric based software, create assemblies using created parts and the content center, create working drawings, exploded drawings, and parts lists of assemblies, create animations of solid model assemblies, and use software to analyze material properties and perform finite element analysis.			