

## Program Outcomes (PROGRAM level)

### MCC CTE Program: Industrial Technology – Engineering Technology, Computer & Electronics Emphasis

CTE or Occupational **Program Outcome**: Students will demonstrate the ability to apply foundational skills in an engineering technology setting, safely and to industry guidelines.

<b>Expected Student Outcome (Performance Criteria or Indicator)</b>	<b>Curriculum or Courses (Strategies)</b>	<b>Assessment Method(s)</b>	<b>Context for Assessment</b>	<b>Time of data collection</b>	<b>Assessment Coordinator</b>	<b>Evaluation of Results</b>
Demonstrate an understanding of OSHA regulations as used industry	EHSS 111	Locally developed assignments, rubrics, exams, labs, and projects	EHSS 111	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate safe work practices in the classroom and lab settings	EHSS 111 ETEC 110 ETEC 118 ETEC 130 ETEC 230 INTE 271	Locally developed assignments, rubrics, exams, labs, and projects	ETEC 110 ETEC 118 ETEC 130 ETEC 230 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate correct procedures for design & installation of electrical & electronic equipment	ETEC 111 ETEC 230 ETEC 275 INTE 271	Locally developed assignments, rubrics, exams, labs, and projects	ETEC 111 ETEC 230 ETEC 275 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate ability to troubleshoot electrical & electronic problems	ETEC 111 ETEC 230	Locally developed assignments, rubrics, exams, labs, and projects	ETEC 111 ETEC 230	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee

**Results** \_\_\_\_\_ (date):

**Actions** \_\_\_\_\_ (date):

**Second-Cycle Results** \_\_\_\_\_ (date):

### Program Outcomes (PROGRAM level)

#### MCC CTE Program: Industrial Technology - Engineering Technology, Computer & Electronics Emphasis

CTE or Occupational **Program Outcome**: Students will demonstrate professional oral and written communication skills.

Expected Student Outcome (Performance Criteria or Indicator)	Curriculum or Courses (Strategies)	Assessment Method(s)	Context for Assessment	Time of data collection	Assessment Coordinator	Evaluation of Results
Demonstrate appropriate interpersonal skills and written communication related to obtaining and retaining employment in a technical field.	ENGR 101 INTE 124	Learning log, role playing, and portfolio	INTE124	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate appropriate oral , written, and technical/electronic communication skills	CSIS 123 ETEC 152 ENGR 101 ETEC 275 ENGL 101 ENGL 215 INTE 124 SPAN 100 SPDR 100	Written assignments/ journal review	INTE 124 ETEC 275	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee

**Results** \_\_\_\_\_ (date):

**Actions** \_\_\_\_\_(date):

**Second-Cycle Results** \_\_\_\_\_(date):

## Program Outcomes (PROGRAM level)

### MCC CTE Program: Industrial Technology - Engineering Technology, Computer & Electronics Emphasis

CTE or Occupational **Program Outcome**: Students will think critically and apply problem-solving skills.

Expected Student Outcome (Performance Criteria or Indicator)	Curriculum or Courses (Strategies)	Assessment Method(s)	Context for Assessment	Time of data collection	Assessment Coordinator	Evaluation of Results
Demonstrate skill using mathematical equations to solve problems in the field of engineering technology.	MATH 180 ETEC 110 ETEC 130 INTE 271	Locally developed assignments, exams, labs, and projects	ETEC 110 ETEC 118 ETEC 130 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate skill in understanding the logical thinking skills needed in electrical & electronic design & troubleshooting	ETEC 111 CSIS 123 CSIS 223 CSIS 271 ETEC 130 ETEC 230 INTE 271	Locally developed assignments, exams, labs, and projects	ETEC 111 ETEC 130 ETEC 230 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate skill in understanding the logical thinking skills needed in microcontroller programming design & troubleshooting	ETEC 111 CSIS 123 CSIS 223 CSIS 271 ETEC 130 ETEC 230 INTE 271	Locally developed assignments, exams, labs, and projects	ETEC 111 ETEC 130 ETEC 230 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee

**Results** \_\_\_\_\_ (date):

**Actions** \_\_\_\_\_(date):

**Second-Cycle Results** \_\_\_\_\_(date):

## Program Outcomes (PROGRAM level)

### MCC CTE Program: Industrial Technology - Engineering Technology, Computer & Electronics Emphasis

CTE or Occupational **Program Outcome**: The program will graduate individuals who exhibit competence in the entry-level skills of technical profession in engineering technology.

Expected Student Outcome (Performance Criteria or Indicator)	Curriculum or Courses (Strategies)	Assessment Method(s)	Context for Assessment	Time of data collection	Assessment Coordinator	Evaluation of Results
Demonstrate an understanding of basic Electrical & Electronic Theory	ETEC 110 ETE 118 ETE 130	Locally developed assignments, exams, labs, and projects	ETEC 110 ETE 118 ETE 130	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate ability to design & electrical & electronic components using schematics and prints	DRAF 152 ETE 118 ETE 230	Locally developed assignments, exams, labs, and projects	ETEC 118 ETE 230	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate a basic understanding of elementary control systems & electronic control components	ETEC 118 ETE 130	Locally developed assignments, exams, labs, and projects	ETEC 118 ETE 130	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate a basic understanding of Digital systems & Programmable Microcontroller Logic	ETEC 111 ETE 130 INTE 271	Locally developed assignments, exams, labs, and projects	ETEC 111 ETE 130 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee

**Results** \_\_\_\_\_ (date):

**Actions** \_\_\_\_\_(date):

**Second-Cycle Results** \_\_\_\_\_(date):

## Program Outcomes (PROGRAM level)

### MCC CTE Program: Industrial Technology - Engineering Technology, Computer & Electronics Emphasis

CTE or Occupational **Program Outcome**: The program will graduate individuals who exhibit competence in the entry-level skills in the design and implementation of microcontrollers.

Expected Student Outcome (Performance Criteria or Indicator)	Curriculum or Courses (Strategies)	Assessment Method(s)	Context for Assessment	Time of data collection	Assessment Coordinator	Evaluation of Results
Demonstrate an understanding of Programmable Logic Controllers, Microcontroller & Computer Technology	ETEC 111 ETEC 130 ETEC 230 INTE 271	Locally developed assignments, exams, labs, and projects	ETEC 111 ETEC 130 ETEC 230 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate ability to program microcontrollers	ETEC 130 ETEC 230 INTE 271	Locally developed assignments, exams, labs, and projects	ETEC 130 ETEC 230 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee
Demonstrate Basic understanding of microcontroller & PLC program design & troubleshooting	CSIS 123 CSIS 223 CSIS 271 ETEC 130 ETEC 230 INTE 271	Locally developed assignments, exams, labs, and projects	ETEC 130 ETEC 230 INTE 271	Fall and Spring Semesters	ETEC Coordinator	ETEC Coordinator, ETEC Faculty and Advisory Committee

**Results** \_\_\_\_\_ (date):

**Actions** \_\_\_\_\_ (date):

**Second-Cycle Results** \_\_\_\_\_ (date):