

General Education Knowledge Goals [GEKG]

Goal 1. Communication. Students will communicate effectively in both speech and writing.

Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Goal 3. Science. Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

MCCC Core Skills [CS]

Goal A. Written and Oral Communication in English. Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.

Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.

Goal D. Information Literacy. Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.

Goal F. Collaboration and Cooperation. Students will develop the interpersonal skills required for effective performance in group situations.

UNIT OBJECTIVES

Unit I Electrical Power Delivery

The student will be able to:

1. Wire a duplex outlet to an electrical panel. [GO 1,2,3]
2. Wire a 240v outlet to an electrical panel. [GO 1,2,3]
3. Select appropriate circuit breaker protection and wire size to meet load current demand. [GO 3]
4. Exhibit proper grounding techniques. [GO 1,2,3]
5. Identify situations requiring ground fault protection. [GO 1,3]
6. Identify appropriate wire type (insulation and size) based on environmental concerns. [GO 1,3]
7. Test electrical connections; enlisting the help of others as needed and correcting problems as they are encountered. [GO 1,2,3,4,5]
8. Exhibit safe practices in all aspects of wiring and cabling. [GO 6]

Unit II Communication Wiring

The student will be able to:

1. Identify the categories of unshielded twisted pair (UTP) cables. [GO 3]
2. Exhibit correct practices in the handling of UTP cables. [GO 2,3]
3. Terminate an RJ45 modular 8-pin connector to a UTP cable. [GO 1,2,3]
4. Strip RG59 coax and add a BNC style connector. [GO 2,3]
5. Test terminated connections; enlisting the help of others as needed and correcting problems as they are encountered. [GO 1,4,5]
6. Identify causes of attenuation and crosstalk in a cable. [GO 2,5]
7. Exhibit safe practices in all aspects of wiring and cabling. [GO 6]

Unit III Fiber Optics and Communication Cabling

The student will be able to:

1. Identify the benefits of fiber optic cable vs. copper cable. [GO 3]
2. Install, cleave and polish an ST style connector on multimode fiber. [GO 2,3,5]
3. Test a fiber optic jumper for loss using a light source and power meter. [GO 3,5]
4. Address environmental concerns (heat, rodents, etc.) in the installation of a cable. [GO 3,5,6]
5. Draw a basic layout of the premises cabling within a building. [GO 1,3,5,6]
6. Test communication wiring; enlisting the help of others as needed and correcting problems as they are encountered. [GO 1,4,5]
7. Exhibit safe practices in all aspects of wiring and cabling. [GO 6]

METHOD OF INSTRUCTION

Learning will take place via classroom instruction, demonstrations, and student activities, as well as through textbook reading and homework assignments. Lab activities augment these experiences.

Use of equipment and manual skills will be developed in the lab.

STUDENT EVALUATION

Students' achievement of the course objectives will be evaluated through the use of the following:

- Three unit tests assessing students' comprehension of terminology, calculations and practices related to the unit objectives. [GO1,2,3,4,5,6]
- Lab grade based on individual reports on experimental results. [GO1,2,3,4,5,6]
- In class participation, homework and attendance. [GO1,2,3,4,5,6]

<i>Evaluation Tools</i>	Percentage Of Grade
3 Unit Tests	50%
Lab Grade	40%
Participation	10%
Total	100%

Letter grade	Nominal %	Definition	QPA quality points
A	93-100	Superior achievement	4.0
A-	90-92		3.7
B+	87-89		3.4
B	83-86	Above average achievement	3.0
B-	80-82		2.7
C+	77-79		2.4
C	70-76	Average achievement	2.0
D	60-69	Minimally passing	1.0
F	0-59	Academic failure	0.0

Attendance Policy:

Mercer County Community College does not have a “cut system.” Students are expected to attend all classes of every course on their schedules. Only illness or serious personal matters may be considered adequate reasons for absence.

It is the prerogative of the instructor to excuse absences for valid reasons, provided the student will be able to fulfill all course requirements.

IF YOU MISS A CLASS IT IS YOUR RESPONSIBILITY TO GET NOTES FROM SOMEONE IN THE CLASS

Student performance in classes is formally verified at the middle of each full semester. If a student’s attendance has been infrequent or performance unsatisfactory, he or she may receive notification in the mail. At any time, the instructor may withdraw the student from class for insufficient attendance.

Academic Integrity:

Students are expected to comply with the college-wide requirements for academic integrity. Mercer County Community College is committed to Academic Integrity—the honest, fair, and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work. Presenting another individual’s work as one’s own and receiving excessive help from another individual will qualify as a violation of Academic Integrity. The entire policy on Academic Integrity is located in the Student handbook and is found on the college website (http://www.mccc.edu/admissions_policies_integrity.shtml).

Withdrawal Course Requirements: Deadline: See Campus Calendar

To receive a W grade for any course, a student must consult with the course instructor or an appropriate division representative and then withdraw officially before two-thirds of the course has been completed by submitting a withdrawal form to the Office of Student Records. Withdrawal after this point results in a grade other than W (usually F). At any time before two-thirds of the course has been completed, the instructor may also withdraw with a W grade any student who has been absent excessively. A student thus withdrawn will not be entitled to any refund of tuition or fees. The student may appeal this action.