## Course Information:
- **Course Information:** COMPUTER SCIENCE I: CIS 116

## Course Section, Term and Year:

## Course Meeting Times & Location:

### Contact:
- **Phone Number:**
- **Office Location:**
- **Email address:**
- **Enter days/time you are available to meet with students:**

### Netiquette
Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end interpret the words?

### Communication:
- **Faculty Communication with Students:**
  Discuss how faculty will contact students.

- **Student Communication with Faculty:**
  Discuss how students will contact faculty when they have questions or concerns.
Course Description:
CIS 116 Computer Science I  3-0-3

This course covers the fundamentals of computer problem solving and programming – techniques, concepts, and vocabulary. Topics include: program development process, differences between the procedural and object-oriented programming methodologies, phases of language translation (compiling, interpreting, linking, executing), and error conditions associated with each phase, primitive data types, memory representation, variables, expressions, assignment, fundamental programming constructs (sequence, selection, iteration), algorithms for solving simple problems, tracing execution, subprograms/functions/methods, and parameter passing. Emphasis is placed on programming in a high-level computer programming language such as C++, Java, or Python.

Course Learning Outcomes:
1. Student will be able to utilize sequential logic structures.
2. Student will be able to implement selection/decision logic structures: If-Then-Else and Select/Case structures.
3. Student will be able to employ iterative/repetition logic structures: Pretest, posttest, and count controlled.
4. Student will be able to use the process of functional decomposition to dissect large problems into smaller modules.

General Education Learning Outcomes:
N/A

Program Learning Outcomes:
(Outcomes Relevant to Course are Shaded)
- COMPUTER INFORMATION SYSTEMS A.A.S.
  1. The graduate will be able to utilize desktop and internet-based applications to perform advanced end-user tasks.
  2. The graduate will be able to analyze algorithms, organize data structures, and employ object-oriented and modular programming techniques to successfully code event-driven programs.
  3. The graduate will be able to design and code dynamic websites using HTML, CSS, and client-side and server-side scripting languages.
  4. The graduate will be able to configure, troubleshoot and support computers and devices in a networked environment.
  5. The graduate will be able to maintain professional growth, manage projects, and self-teach within a team environment with appropriate interpersonal skills.

- COMPUTER NETWORKING & CYBERSECURITY A.S.
  1. Configure and Install end-user and server hardware and operating systems.
  2. Identify system vulnerabilities and be able to assess cyber-related risks.
  3. Analyze and utilize appropriate tools to protect network infrastructure and data.
4. Develop and implement proactive procedures and scripts to manage networked computers, servers and data.

• COMPUTER SCIENCE A.S.
  1. The graduate will be able to utilize desktop and internet-based applications to perform advanced end-user tasks.
  2. The graduate will be able to analyze algorithms, organize data structures, and employ object-oriented and modular programming techniques to successfully code event-driven programs.

The graduate will be able to maintain professional growth, manage projects, and self-teach within a team environment with appropriate interpersonal skills.

Course Resources:

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<td>Materials:</td>
<td>Enter all additional required materials and tools needed to complete course here.</td>
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<td>Access:</td>
<td>List access codes needed for websites or other software.</td>
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Course Policies:
Click here to describe how students will participate in your class. Include policies regarding missed exams, makeup exams, extra credit assignments, late assignments, missed assignments, etc.

Course Delivery:

Course Content:

Lecture Format:

Student Expectations specific to this course:

Course Outline and Schedule

Grading Method:
Click here to enter a clear explanation of how students will be evaluated, including a description of course assessments and a statement of the assessment process and measurements. Include weight/percentages for quizzes, exams, papers, projects, homework, attendance, participation, etc.

Grading Scale:

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**Earn an FMCC Micro-credential Badge:**

Check this link to see if this course meets a requirement for an FM Micro-credential Badge: [https://www.credly.com/organizations/fulton-montgomery-community-college/badges](https://www.credly.com/organizations/fulton-montgomery-community-college/badges)