MILLERSVILLE UNIVERSITY

| DEGREE: BS | MAJOR REQUIREMENTS FOR A BS DEGREE IN COMPUTER SCIENCE |
| MAJOR: CSCI | Total credit hours required: 120.0 minimum |
| OPTION: | |

**REQUIREMENTS AND POLICIES FOR THE BS COMPUTER SCIENCE MAJOR**

**A. Policies for Admission to the Major**
1. New students (freshmen and transfers) must be admitted to the Computer Science major by the Office of Admissions upon admission to the University.
2. Admission into the Computer Science major from other departments is upon approval of the chairperson of the Computer Science Department.
3. Non-degree and continuing education students must be admitted to the Computer Science major by the Office of Admissions.

**B. Policies for Retention in the Major**
1. University requirements for retention.

**C. Policies for Completion of the Major**
1. Completion of all University curricular requirements.
2. English 312, Technical Writing or English 318, Science Writing is required as the upper-level writing course under the General Education Curriculum.

**Note to the student:** This form is provided as a guide. It is your responsibility to consult regularly with your advisor to be aware of changes and curriculum details which are not incorporated on this form.
### MAJOR SEQUENCE AND DEGREE REQUIREMENTS

**Major:** BS COMPUTER SCIENCE  
**Option:**  
**Major Field Requirements:** 52.0 credits  
**Other Requirements:** 22.0 credits

When applicable, up to six of the **REQUIRED RELATED courses** may be credited toward the Liberal Arts Core subject to normal distribution rules.

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<th>Course No.</th>
<th>Short Title</th>
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<td>Discrete Structures</td>
<td>4.0</td>
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<td>Intro to Programming I</td>
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**REQUIRED CSCI COURSES (40.0 credits)**

- CSCI 140 Discrete Structures 4.0
- CSCI 161 Intro to Programming I 4.0
- CSCI 162 Intro to Programming II 4.0
- CSCI 330 Program Lang & Software Engineer 4.0
- CSCI 340 Computational Models 4.0
- CSCI 362 Data Structures 4.0
- CSCI 366 Database & Web Development 4.0
- CSCI 370 Computer Architecture 4.0
- CSCI 380 Operating Systems 4.0
- CSCI 420 Software Engineering 4.0

**REQUIRED RELATED (22.0 credits)**

- Mathematics (10.0 - 11.0 credits)
  - MATH 161 Calculus I 4.0
  - MATH 235 Survey of Statistics 3.0
  - PHIL 312 Mathematical Logic 3.0

**REQUIRED CSCI ELECTIVES (12.0 credits)**

Select three courses from the following:

- CSCI 375 Computer Graphics 4.0
- CSCI 395 Computer Networks 4.0
- CSCI 415 Computer & Network Security 4.0
- CSCI 419 Mobile Device App Development 4.0
- CSCI 425 Human-Computer Interaction 4.0
- CSCI 435 Compiler Construction 4.0
- CSCI 450 Artificial Intelligence 4.0
- CSCI 456 Robotics & Computer Vision 4.0
- CSCI 467 Design & Analysis of Algorithms 4.0
- CSCI 475 3D Game Programming 4.0
- CSCI 476 Parallel Programming 4.0
- CSCI ____ Co-op 4.0

**REQUIRED RELATED (22.0 credits)**

- Natural/Physical Sciences (11.0 credits)
  - At least 11 s.h. of Natural/Physical science courses:
    - Biology, Chemistry, Earth Sciences, and Physics that are intended for science majors; these courses must include at least two laboratory (L-designated) courses.

**Note:** Credits must be taken in Math and Sciences to total at least 22.0 credits.

- Note: ENGL 312 or ENGL 318 is required as the upper-level writing course under the General Education Curriculum.

**General Electives (as necessary)**

- [Courses and grades]

Approval of the following courses as CSCI Electives is by departmental approval based on course content:

- CSCI 406 Topics in Computer Science 4.0
- CSCI 498 Independent Study 1.0-4.0