The Computer Science curriculum is designed to provide students with the foundations for work in a computing field. It includes course work in language systems, databases, networking, software design, and web development. The program prepares students for graduate studies in Computer Science and related fields. It also prepares students to obtain computer related jobs, which include: software engineers, web programmers and designers, database administrators, database programmers, system administrators, and systems analysts.

**Degrees Offered**

- Bachelor of Science—with a Major in Computer Science
- Bachelor of Science or Arts—with a Minor in Computer Science
- Associate of Applied Science Degree in Information Technology with a Major in Programming and Software Development

Several of our graduates obtained advanced degrees in Computer Science from institutions such as Ohio University and William & Mary.

Current graduates work as programmers, system analysts, and web designers. Some are running their own computer related businesses.

**Recommended Course Sequence—Bachelor of Science in Computer Science**

**First Year**

**Fall Semester**
- LA10101 Freshman Success
- CS20104 Programming I
- Math/General Education/Minor requirement

**Spring Semester**
- CS20204 Programming II
- Math/General Education/Minor requirement

**Second Year**

**Fall Semester**
- CS22003 Data Structures
- CS21503 Intro. To Database
- Math/General Education/Minor requirement

**Spring Semester**
- CS24303/44303 Software Design
- MTH25403 Discrete Mathematics
- General Education/Minor requirement

**Third Year**

**Fall Semester**
- CS32003 Operating Systems Or CS34103 Computer Algorithms
- CS Electives
- Math/General Education/Minor requirement

**Spring Semester**
- CS31503 Programming Languages Or CS33403 Web Programming & Development
- CS41103 Computer Architecture
- CS Electives
- Math/General Education/Minor requirement

**Fourth Year**

**Fall Semester**
- CS34103 Computer Algorithms Or CS32003 Operating Systems
- CS Electives
- Math/General Education/Minor requirement

**Spring Semester**
- CS33403 Web Programming & Development
- CS41103 Computer Architecture Or CS31503 Programming Languages
- CS Electives
- Math/General Education/Minor requirement
# Computer Science

## Bachelor of Science in Computer Science Check List

### General Education  40 credits

#### Communication Skills  9 credits
- COM 1103 Fund of Speech Communications
- ENG 1103 Composition I
- ENG 11203 Composition II

#### Health & Physical Education  2 credits
- HPE 10101 Human Wellness & Phys. Fit
- HPE Activity Course

#### Arts/Humanities  9 credits
- Group I. At least one course from:
  - ART 10303 Art Appreciation
  - FPA 10503 Fine Arts
  - MUS 10403 Music Appreciation
- Group II. At least one course from:
  - ENG 24103 Literary Imagination
  - HUM 21033 Humanities
  - PHR 21103 Philosophical Inquiry
- Group III. At least one course from:
  - HIS 13103 World Civilization I
  - HIS 13203 World Civilization II

### Social Science  6 credits
- Group I. At least one course from:
  - ATH 12103 Anthropology
  - HIS 12203 American History II (Since 1877)
  - POL 11103 American National Government
- Group II. At least one course from:
  - ECO 1103 Contemporary Economics
  - PSY 11103 General Psychology
  - SOC 11103 Introduction to Sociology

#### Liberal Arts  1 credit
- LA 10001 Gateway to Success

#### Mathematics & Natural Science  13 credits
- Group I Mathematics. At least one course from:
  - MTH 21404 Intro Prob. & Stats
  - MTH 15105 Calculus I (Required)
- Group II Biology. At least one course from:
  - BIO 11004 Plants & People
  - BIO 11404 Principles of Biology
  - BIO 12104 Biology I
- Group III. Natural Science. At least one course from:
  - CHM 10404 Principles of Chemistry
  - NSC 22304 Environmental Science
  - PHY 10404 Principles of Physics

### Computer Science Major Courses  83 credits

#### Computer Science Required Courses  56 credits
- CS 20104 Computer Programming I
- CS 20204 Computer Programming II
- CS 21503 Introduction to Database
- CS 22003 Data Structures
- CS 31503 Programming Languages
- CS 32003 Operating System
- CS 33403 Web Programming & Development
- CS 34103 Computer Algorithms
- CS 41103 Computer Architecture
- CS 24303/44303 Software Design
- MTH 25403 Discrete Mathematics

#### CS Electives selected from the following  5 credits
- CS 35103 Theory of Computation
- CS 41503 Advanced Database
- CS 42503 Mobile Application Development
- CS 43503 Network Security Programming
- CS 46403 Adv. Comm. & Networking
- CS 44503 Big Data Systems
- CS 33003 Cloud Computing

### Selected Minor & Personal Electives  43 credits

### Total  125 credits

Note: A student must complete thirty-three (33) hours at the 30000-40000 level.

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Contact:
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