## COMPUTER SCIENCE

## Bachelor of Science (BS)

This is a guide based on the 2024-2025 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

## CURRICULUM CHECKLIST

## 84 Hour Major - No Minor Required

## Required courses:

_ CS101 Introduction to Computer Programming (3)CS155 Computer Science I (4)

- CS245 Discrete Structures I (3)
_ CS265 Computer Science II (4)
_ CS288 Computer Systems \& Assembly Language (4)
- CS300 Computer Science III (3)
- CS345 Discrete Structures II (3)
——CS350 Analysis of Algorithms (3)
_ CS351 C and POSIX Environment (4)
_ CS380 Computer Operating Systems (3)
- CS390 Programming Languages (3)
- CS433 Data Analytics (3)
_CS440 Database (3)
__CS445 Software Engineering I (3)
—CS480 Data Communications (3)
- CS495 Senior Seminar (1)
- CS499 Capstone Experience (3)
__ CS591 Advanced Artificial Intelligence (3)
__CY201 Introduction to Cybersecurity (3)
- IU315 Ethics in the Cyber World (3)
— MA139 Applied Calculus (3)
——MA223 Elementary Probability and Statistics (3)
__MA464 Mathematical Cryptography (3)
CSxxx 300 level and above (6)
Choose 2 science courses with lab:
__Bl163/0063 Evolution and Ecology (4)
__CH184/185 General Chemistry I and lab (3+1)
— PH120/020 Introductory Physics I (5)
NOTE: A minimum grade of ' $C$ ' or better is required in each course that is a prerequisite course.

General Education Requirements - some requirements may be fulfilled by coursework in major program

- Social and Behavioral Sciences -6 hours
- Constitution Requirement - 3 hours
- Written Communication -6 hours
- Oral Communication - 3 hours
- Natural Sciences - 7 hours (from two disciplines, one to include a lab)
- Mathematics - 3 hours
- Humanities \& Fine Arts - 9 hours (from at least two disciplines)
- Additional requirements -5 hours (to include Ul100 for native students)
- Civics examination

SAMPLE FOUR-YEAR PLAN

|  | Fall Semester |  | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Course \# | Hrs | Course \# | Hrs |
|  | Ul100 | 1 | CS155 | 4 |
|  | EN100 | 3 | CS245 | 3 |
|  | CS101 | 3 | IU315 | 3 |
|  | General Education | 3 | MA139 | 3 |
|  | General Education | 3 | General Education | 3 |
|  | Total | 13 | Total | 16 |
|  | CS265 | 4 | CS300 | 3 |
|  | CS288 | 4 | CS380 | 3 |
|  | CS351 | 4 | MA223 | 3 |
|  | General Education | 3 | General Education | 3 |
|  |  |  | General Education | 3 |
|  | Total | 15 | Total | 15 |
|  | CS345 | 3 | CS433 | 3 |
|  | CS390 | 3 | CS591 | 3 |
|  | CS440 | 3 | CY201 | 3 |
|  | CS480 | 3 | Natural Science course* | 4-5 |
|  | General Education | 3 | General Education | 3 |
|  | Total | 15 | Total | 16-17 |
|  | CS350 | 3 | CS495 | 1 |
|  | CS445 | 3 | CS499 | 3 |
|  | CS300-599 | 3 | CS300-599 | 3 |
|  | Natural Science course* | 4-5 | MA464 | 3 |
|  | General Education | 3 | Elective | 0-1 |
|  | Total | 16-17 | Total | 13-14 |

*One of the science courses will satisfy either Living Systems or Physical Systems A minimum 2.0 GPA in the major is required to graduate with a Bachelor of Science degree.

Degree requirements for all students: a minimum of 120 credit hours, completion of the General Education program, and completion of 39 senior division hours (300-599). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

NOTE: The Bachelor of Science with a major in Computer Science is accredited by the Computing Accreditation Commission (CAC) Accreditation Commission(s) of ABET, https://www.abet.org, under the General Criteria and the Computer Science Program Criteria.

