

Fall 2022
Bachelor of Science in Computer Science
Specialization in Computational Data Science

BG Perspective (BGP) Requirements

Must complete at least 1 course in each of the following:

English Composition and Oral Communication Course	Credits
_____	_____
Quantitative Literacy	
_____	_____

Must Complete at least 2 courses in each of the following:

Humanities and the Arts	
_____	_____
_____	_____
Natural Sciences - at least one Lab Science required	
_____	_____
_____	_____
Social and Behavioral Sciences	
_____	_____
_____	_____

Complete total required BGP credit hours by selecting courses from any of the above categories:

_____	_____
_____	_____
_____	_____
_____	_____

University Requirements Designated courses in Humanities and the Arts and the Social and Behavioral Sciences domains may be used to fulfill both the BGP requirement and one of the following university requirements:

Cultural Diversity in the US	_____
International Perspective	_____

Composition Requirement:

WRIT 1120 Research Writing	_____
Total BGP Credits: Must be at least 36	_____

Arts & Sciences Requirements

World Languages and Cultures (____ yrs of HS____)
 Consult the Undergraduate Catalog or the Arts and Sciences Student Handbook regarding approved course options in the different language and culture areas.

_____	_____	1010	_____
_____	_____	1020	_____
_____	_____		_____
_____	_____		_____

Lab Science

_____	_____	_____
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Quantitative Literacy

_____ EITHER MATH 1310 OR MATH 1340 & MATH 1350

Multidisciplinary Component Select from approved offerings, in consultation with an advisor and a faculty mentor. Four courses total, each with a different subject prefix. At least two courses at 3000/4000 level. Courses applied to the Arts & Sciences MDC may not be used to fulfill other Arts and Sciences degree requirements, nor may they be used to fulfill major, minor, BGP or other program requirements.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Major Requirements (56 Hrs.)

CS Core Requirements (38 hrs.)

Hrs	Grade	
3	_____	CS 2010 Programming Fundamentals
3	_____	CS 2020 Intermediate Programming
3	_____	CS 2190 Computer Organization
2	_____	CS 2900 Career Preparation in Computing Fields
3	_____	CS 3000 Professional & Societal Issues in Computing
3	_____	CS 3060 Programming Languages
3	_____	CS 3080 Operating Systems
3	_____	CS 3350 Data Structures
3	_____	SE 3540 Introduction to Software Engineering
3	_____	CS 3900 Internship in Computer Science or 3 cr hrs of CS 3901 Internship in Computer Science
3	_____	CS 4120 Design and Analysis of Algorithms
3	_____	CS 4390 Network Architecture and Application
3	_____	CS 4770 Computer Science Capstone Experience OR SE 4770 Software Engineering Capstone Experience

Computational Data Science Specialization (18 hrs.)

3	_____	CS 3200 Introduction to Machine Learning
3	_____	CS 4170 Parallel Computing
3	_____	CS 4620 Database Management Systems
3	_____	CS 4630 Python for Computational & Data Science
3	_____	MATH 3320 Elementary Linear Algebra
3	_____	Choose one from
		CS 4200 Artificial Intelligence
		CS 4250 Computer Graphics
		CS 4420 Techniques of Simulation
		MATH 3430 Computing with Data

Additional Requirements

Mathematics		
5-6	_____	MATH 1310 or both MATH 1340 & 1350
3	_____	MATH 2220 or 3220
3-6	_____	MATH 2470 or MATH 3410 or MATH 4410
5	_____	MATH 2320
Science		
8-10	_____	A&S Lab Science Sequence

*Recommended Math Courses:

- MATH 2332 Calculus and Analytic Geometry III
- MATH 4410 Probability and Statistics I

Electives and Non-Credit Courses

_____	_____	_____
_____	_____	_____
_____	_____	_____

Name (Print First & Last Name)

BGSU ID#

Phone (Cell or Local Number)

For Graduation You Will Need:

1. 122 credit hours minimum.

In Progress/Completed _____ **Needed** _____

2. Minimum GPA 2.00.

Current GPA _____

3. At least 30 credit hours of BGSU course work.

In Progress/Completed _____ **Needed** _____

4. 40 credit hours at the 3000/4000 level.

In Progress/Completed _____ **Needed** _____

5. Completion of all degree requirements, including the BG Perspective Core.

In Progress/Completed _____ **Needed** _____

6. A major, and if required, a minor, specialization or emphasis.

Declared with the College Office **Yes** **No**

Any substitution or waiver of courses required for your major or minor program must originate in the department/school offering the major or minor and must be approved by the College Office.

To ensure a timely graduation, see a **College Advisor** during the semester prior to your intended graduation.

Remember to complete an **Application for Graduation** by the end of the second week of classes during the fall semester or spring regular session, or by the end of the first week of the summer semester. For the specific dates, check your DARS. You may log onto MyBGSU to complete the online application. After the deadlines, you will need to complete an application in person in the College Office.