Degree Requirements
For the Bachelor of Science degree in Computer Science, a minimum of 120 credits is required:

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13 of the 45 credits for General Education are included in Requirements for the Major. This includes: 3 credits of GWS courses, 6 credits of GQ courses, and 4 credits in GN courses.

FIRST-YEAR SEMINAR: Incoming first-year students are required to complete a course with the suffix S, T, or X, or the PSU abbreviation.

General Education
Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (http://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

Foundations (grade of C or better is required.)
- Quantification (GQ): 6 credits
- Writing and Speaking (GWS): 9 credits

Knowledge Domains
- Arts (GA): 6 credits
- Health and Wellness (GHW): 3 credits
- Humanities (GH): 6 credits
- Social and Behavioral Sciences (GS): 6 credits
- Natural Sciences (GN): 9 credits

Integrative Studies (may also complete a Knowledge Domain requirement)
- Inter-Domain or Approved Linked Courses: 6 credits

University Degree Requirements
First Year Engagement
All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

What is Computer Science?
Computer science is the study of computational methods, including their principles and foundations, their efficient implementation, their analyses, and their practical application in wide-ranging areas. It includes the foundations of software development, computational problem solving, the principles of system software, and the fundamental principles and limits of computing. It is much more than just programming.

It includes the mathematical foundations that support analyzing, evaluating, and proving the correctness of computational solutions. It includes specializations such as artificial intelligence, machine learning, cybersecurity, data mining, high-performance computing, computer networks, computer graphics, computer vision, quantum computing, and others. It is continually evolving with the development of new and faster forms of computation and with the identification of new problems that require computational solutions.

You Might Like This Program If...
- You have an interest or aptitude in math.
- You enjoy solving problems and you are good at analytical thinking.
- You are interested in finding more efficient solutions to problems. Remember, computer science is more than just programming.

Entrance to Major
Entry to the Computer Science major requires that the student has earned a C or better in the following courses: MATH 140, MATH 141, CMPSC 121, and CMPSC 122.

A 2.00 or higher cumulative grade-point average is required.
Cultures Requirement
6 credits are required and may satisfy other requirements

- United States Cultures: 3 credits
- International Cultures: 3 credits

Writing Across the Curriculum
3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits
A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

Quality of Work
Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

Limitations on Source and Time for Credit Acquisition
The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80). For more information, check the Suggested Academic Plan for your intended program.

Requirements for the Major
To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44. Students should consult with their college or department adviser for information on specific credit requirements.

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academic adviser, the information needed to plan the chosen program of
study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (http://senate.psu.edu/
policies-and-rules-for-undergraduate-students/32-00-advising-policy)

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Career Paths
Computer Science jobs are expected to be among the top three fastest
growing occupations and one of the top 20 in the number of new jobs
created. According to the U.S. Bureau of Labor Statistics, employment
opportunities for Computer Science graduates are projected to grow 12
percent from 2014 to 2024, faster than the average for all occupations.
Computer Science students are encouraged to incorporate internships
into their academic program. Internships can provide valuable hands-on
experience that will benefit graduates during their job search. Previous
students have completed successful internships with state government,
IBM, UNISYS, and other businesses.

Careers
This program is designed to prepare students for employment as
computer scientists in engineering, scientific, industrial, and business
environments as software developers, programmers, and systems
analysts. Over the last few years, Penn State Harrisburg Computer
Science graduates have obtained positions with companies such as Blue
Cross/Blue Shield, Google, Boeing, Microsoft, Intel, IBM, Oracle, General
Dynamics, Northrop and Grumman, GEOS, Hershey Medical Center,
Woolworth, Rite Aid, and EDS.

Opportunities for Graduate Studies
The program provides a sound background for students who plan to
pursue graduate studies in computer science, including Penn State’s
Master of Science in Computer Science program. Selection of electives
can be tailored for students pursuing this path.

MORE INFORMATION ABOUT OPPORTUNITIES FOR GRADUATE STUDIES
(https://harrisburg.psu.edu/science-engineering-technology/computer-
science-and-mathematics/master-science-computer-science)

Professional Resources
• Association for Computing Machinery (https://orgsync.com/104244/
chapter)

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