BACHELOR OF SCIENCE IN APPLIED COMPUTER SCIENCE

Description and Outcomes

The Bachelor of Science in Applied Computer Science (BSACS) is an undergraduate degree for motivated students that provides both breadth and depth in the understanding and application of computer science. You will study all aspects of computer science including the internal operations of the computer as well as the applications needed to operate the computer. Opportunities exist for you to specialize in various areas of computer science including artificial intelligence. Hands-on experience is provided throughout the curriculum, as appropriate. Graduates will be prepared for multiple careers in areas such as software development, information security, systems research and management, and other related computer-oriented occupations.

Graduate Program Pathways

If you are interested in earning both a bachelor's and master's degree, consider a graduate program pathway (https://catalog.purdueglobal.edu/undergraduate/graduate-program-pathways/).

Program Length

The Bachelor of Science in Applied Computer Science program consists of a minimum of 180 quarter credit hours. Upon successful completion of the program, you will be awarded a bachelor of science degree.

Program Outcomes

Discipline-Specific Outcomes

1. Technology Skills: Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. System Specifications: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Professional Communication: Communicate effectively in a variety of professional contexts.
4. Professional Development: Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Team Management: Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Client Specifications: Apply computer science theory and software development fundamentals to produce computing-based solutions.

General Education Literacies and Professional Competencies

In addition to the discipline-specific outcomes, general education literacies and professional competencies are integrated throughout your academic program. You can review the general education literacies and professional competencies associated with your academic program in the General Education and Professional Competency Requirements (https://catalog.purdueglobal.edu/undergraduate/general-education-professional-competency-requirements/) section of this Catalog.

Program Availability

For program availability, please refer to the U.S. State and Other Approvals (https://catalog.purdueglobal.edu/policy-information/university-information/accreditation-approvals-memberships/) section and Program Availability Information (https://www.purdueglobal.edu/catalog-program-availability-info.pdf).

Policies

Please refer to school-specific policies (https://catalog.purdueglobal.edu/undergraduate/business-information-technology/) and the Policy Information (https://catalog.purdueglobal.edu/policy-information/) section for general Purdue Global policies.

Certification, State Board, and National Board Exams

Certification and licensure boards have state-specific educational requirements for programs that lead to a license or certification that is a precondition for employment. Prospective and current students must review Purdue Global's State Licensure and Certifications (https://www.purdueglobal.edu/about/accreditation/licensure-state-authorizations/) site to view program and state-specific licensure information.

Licensure-track programs may limit enrollment to students in certain states; please see Purdue Global's Program Availability Information (https://www.purdueglobal.edu/catalog-program-availability-info.pdf) to determine enrollment eligibility.

You are responsible for understanding the requirements of optional certification exams. Such requirements may change during the course of your program. You are not automatically certified in any way upon program completion. Although certain programs are designed to prepare you to take various optional certification exams, Purdue Global cannot guarantee you will be eligible to take these exams or become certified. Your eligibility may depend on your work experience, completion of education and/or degree requirements, not having a criminal record, and meeting other certification requirements.

Degree Plan

The 🌐 icon appears in the title of traditional courses that are also available as a set of module courses. Module course availability may be limited to certain academic calendars. See Course Types *(https://catalog.purdueglobal.edu/policy-information/university-information/approach-to-learning/) for information about module courses.*

Program Requirements

Code	Title	Credits
Core Requirements		
CM107	🌐 College Composition I	5
CM220	🌐 College Composition II	5
CS212	🌐 Communicating Professionalism	5
MM165	Advanced Algebra and Geometry	5
MM212	🌐 College Algebra	5
MM250	🌐 Discrete Mathematics	5
100/200 Level	Arts and Humanities Requirement [1]	5
100/200 Level	Science Requirement [1]	5
100/200 Level	Social Science Requirement [1]	5
Total Core Requirements		45
Major Requirements		
IT200	Software Engineering	5

IT234	Database Concepts	5
IN252	Software Development Concepts Using Java	5
IN256	Software Design and Development Concepts Using Java	5
IT273	Networking Concepts	5
IT286	Network Security Concepts	5
MM260	Linear Algebra	5
MM265	Trigonometry	5
IN300	Programming for Data Analysis (Python, R, and Java)	5
IT310	Data Structures and Algorithms	6
IN315	Computer Architecture	6
IT320	Operating Systems	6
IN317	Compilers	6
IT350	Advanced Database Concepts	6
IN352	Advanced Software Development Including Web and Mobility Using Java	6
IN452	Advanced Software Development Using Java	6
MM365	Calculus I	5
MM555	Applied Statistics [2]	4
or MM207	Statistics	
IT488	Software Product Development Using Agile	6
Total Major Requirements		102
Open Elective Requirements		
Open Electives		33
Total Open Elective Requirements		33
TOTAL CREDITS		**180**

[1] For options to fulfill this requirement, see the corresponding literacy in General Education and Professional Competency Requirements (https://catalog.purdueglobal.edu/undergraduate/general-education-professional-competency-requirements/).

[2] If you complete MM207 Statistics to fulfill this requirement, the open elective credits required will be reduced by one credit.