

BACHELOR OF SCIENCE IN ANALYTICS

Description and Outcomes

This program equips you to master foundational and advanced concepts of data analytics. You will apply current technical and statistical tools and processes to analyze many types of data. You will use your analysis to identify current trends and predict possible future trends. Upon completion, you will be able to recognize best practices in the analysis of data and to evaluate data analysis tools and enterprise solutions using analytics. The courses in this program enable you to pursue many industry recognized data analytics certifications. Whether your immediate educational goals are satisfied by the completion of a bachelor's degree or you are planning to pursue study in the data analytics field beyond the baccalaureate level, this degree program may be for you.

The following educational objectives are approved by information technology faculty and the Advisory Board:

- Our graduates will be able to apply current industry-accepted practices and new and emerging practices when solving real-world information technology problems in the industry.
- Our graduates will be able to exhibit teamwork and effective communication skills.
- Our graduates will be able to ethically and appropriately apply knowledge of societal impacts of information technology in the course of career-related activities.

This program is available in ExcelTrack. Speak with your University representative for any limitations. For more information on ExcelTrack, see Learning Paths in the Approach to Learning (<https://catalog.purdueglobal.edu/policy-information/university-information/approach-to-learning/>) section of the Catalog.

Concentrations

You can personalize your degree in analytics by focusing electives on a concentration in cloud computing, game development, information security and assurance, network administration, software development using C#, software development using Java, software development using Python, software development using web languages, or supply chain management and logistics.

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 Analytics 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. **Data Analysis Skills:** Analyze a complex set of data and apply principles of analysis and other relevant disciplines to create requested reports.

2. **Data Specifications:** Design, implement, and evaluate an analytics-based solution to meet a given set of requirements in the context of the discipline.
3. **Professional Communication:** Communicate effectively in a variety of professional contexts.
4. **Professional Development:** Recognize professional responsibilities and make informed judgments in analyzing data 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 analysis of data.

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
MM207	 Statistics	5
MM212	 College Algebra	5
SS290	 Data in Our World - Introduction to Data Literacy	5
100/100 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		
IT153	 Spreadsheet Applications	5
IT163	 Database Concepts Using Microsoft Access	5
IN200	 Data Governance - Policy and Ethics	5
IT234	 Database Concepts	5
IT286	 Network Security Concepts	5
MM250	 Discrete Mathematics	5
IN300	 Programming for Data Analysis (Python, R, and Java)	5
IN301	 Securing Data	5
IN302	 Reporting and Visualization	5
IT350	 Advanced Database Concepts	6
IN400	 Artificial Intelligence (AI) - Deep Learning and Machine Learning	6
IN401	 Data Curation Concepts	6
IN402	 Modeling and Predictive Analysis	6
MM325	 Statistical Data Analysis	5
IN498	Bachelor's Capstone in Analytics	5
Total Major Requirements		79
Open Elective Requirements		
Open Electives		56
Total Open Elective Requirements		56
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/>).

Concentration Requirements






Concentration courses are completed within the open electives requirement of the degree plan.

Students in this program are not required to select a concentration.








Cloud Computing

Code	Title	Credits
IT222	 Introduction to Cloud Computing	5
IT227	 Cloud Infrastructure Administration	5
IT273	 Networking Concepts	5
IT303	 Cloud Architecture Concepts and Design	6
IT304	 Application Development and Scripting in the Cloud	6
IT403	 Cloud Security	6
TOTAL CREDITS		33







Game Development

Code	Title	Credits
IN240	 Game Design and Mechanics	5
IN241	 Game Programming	5
IN242	 Game Art and Animation	5
IN251	 Software Development Concepts Using C#	5
IN255	 Software Design and Development Concepts Using C#	5
TOTAL CREDITS		25







Information Security and Assurance

Code	Title	Credits
IN203	 Networking With Microsoft Technologies	5
IT273	 Networking Concepts	5
IT278	 Windows Administration	5
IT316	 Computer Forensics	6
IT390	 Intrusion Detection and Incident Response	6
IT411	 Digital Forensics	6
IT484	 Cybersecurity Policies	6
TOTAL CREDITS		39







Network Administration

Code	Title	Credits
IN203	 Networking With Microsoft Technologies	5
IN205	 Routing and Switching I	5
IN206	 Routing and Switching II	5
IT273	 Networking Concepts	5
IT278	 Windows Administration	5
IT375	 Windows Enterprise Administration	6
TOTAL CREDITS		31







Software Development Using C#

Code	Title	Credits
IT117	 Website Development	5
IN251	 Software Development Concepts Using C#	5
IN255	 Software Design and Development Concepts Using C#	5
IN351	 Advanced Software Development Including Web and Mobility Using C#	6
IN451	 Advanced Software Development Using C#	6
IT488	 Software Product Development Using Agile	6
TOTAL CREDITS		33




Software Development Using Java




Code	Title	Credits
IT117	 Website Development	5
IN252	 Software Development Concepts Using Java	5
IN256	 Software Design and Development Concepts Using Java	5
IN352	 Advanced Software Development Including Web and Mobility Using Java	6
IN452	 Advanced Software Development Using Java	6
IT488	 Software Product Development Using Agile	6
TOTAL CREDITS		33

Software Development Using Python

Code	Title	Credits
IT117	 Website Development	5
IN250	 Software Development Concepts Using Python	5
IN254	 Software Design and Development Concepts Using Python	5
IN350	 Advanced Software Development Including Web and Mobility Using Python	6
IN450	 Advanced Software Development Using Python	6
IT488	 Software Product Development Using Agile	6
TOTAL CREDITS		33

Software Development Using Web Languages

Code	Title	Credits
IT117	 Website Development	5
IN253	 Software Development Concepts Using JavaScript and PHP	5
IN257	 Software Design and Development Concepts Using JavaScript and PHP	5

IN353	 Advanced Software Development Including Web and Mobility Using JavaScript and PHP	6
IN453	 Advanced Software Development Using JavaScript and PHP	6
IT488	 Software Product Development Using Agile	6
TOTAL CREDITS		33

Supply Chain Management and Logistics

Code	Title	Credits
MT433	Global Supply Chain Management	6
MT434	Logistics and Distribution Management	6
MT436	Purchasing and Supply Chain Management	6
MT437	Strategic Warehouse Management	6
MT438	Supply Chain Analytics	6
TOTAL CREDITS		30