BACHELOR OF SCIENCE IN APPLIED MANUFACTURING

Description and Outcomes

The Bachelor of Science in Applied Manufacturing is designed to equip you with the knowledge, skills, and expertise necessary to excel in the rapidly evolving field of manufacturing. You will develop a strong foundation in fundamental principles of manufacturing technologies, demonstrating proficiency in areas such as lean manufacturing, supply chain management, and quality control. Additionally, you will gain hands-on experience with advanced technologies, including robotics, artificial intelligence, and the Internet of Things, to enhance sustainable manufacturing processes and drive innovation within the industry.

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 Manufacturing 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. Engineering Skills: Apply knowledge, techniques, skills, and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline.
2. System Specifications: Design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline.
3. Professional Communication: Apply written, oral, and graphical communication in broadly defined technical and non-technical environments and identify and use appropriate technical literature.
4. Testing and Validation: Conduct standard tests, measurements, and experiments; analyze and interpret the results to improve processes.
5. Teamwork: Function effectively as a member and a leader on technical teams.

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
MM212	🌐 College Algebra	5
MM250	🌐 Discrete Mathematics	5
MM260	Linear Algebra	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		
BI100	Introduction to the Workplace and Safety	5
BI150	Introduction to Plant Floor and Computer Numerical Control (CNC) Principles	5
BI200	Introduction to Print Reading	5

BI250	Manufacturing Automation	5
BI260	Production Machine Tooling	5
BI270	Computer-Aided Design Fundamentals	5
BU224	Microeconomics	5
BI400	Industry 4.0 Principles and Technologies	6
IT301	Project Management I	6
IT333	Emerging Technologies and the Future	3
MM555	Applied Statistics [2]	4
or MM207	Statistics	
MT313	Corporate Sustainability and Social Responsibility	6
MT433	Global Supply Chain Management	6
MT435	Operations Management	6
MT475	Quality Management	6
BI499	Bachelor's Capstone in Applied Manufacturing	6
Total Major Requirements		84
Open Elective Requirements		
Open Electives		51
Total Open Elective Requirements		51
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.