



# PROGRAMS OF **study**

## **ARCHITECTURAL & ENGINEERING DESIGN**

ASSOCIATE IN APPLIED SCIENCE



### **Program Description**

The Architectural and Engineering Design Degree curriculum provides a broad-based education for employment in a variety of design disciplines. Students learn Computer Aided Design (CAD) and 3D printing, engineering standards and design concepts, fabrication and construction processes, structural mechanics and material properties, and measurements and mathematics as they relate to the design process. Courses are designed to develop problem solving, critical thinking, communication and technical skills. The program prepares students for advanced CAD applications emerging in the fields of architecture, engineering, graphics, and design.

### **Program Learning Outcomes**

Students who successfully complete the Associates in Applied Science degree in Architectural and Engineering Design will be able to:

- Interpret and illustrate abstract concepts in the predevelopment stages of the design process.
- Create and manipulate architectural models and plans using CAD software.
- Describe and explain the relationship between spatial design, culture and technology.
- Create and present technical drawings that comply with industry standards and building codes.
- Translate vision and ideas through the use of quantitative data and visual aids such as drawings and 2D and 3D models.
- Investigate contemporary societal and environmental issues involved in the design process in an ethical manner.
- Recognize the value of diversity in opinions, values, abilities and cultures in the business environment.
- Operate both independently and as a team member in collaborative projects.



### **Career Opportunities**

The Architectural and Engineering Design degree prepares students for positions as a CAD designer or drafter in a variety of design professions with architectural, engineering, and manufacturing firms. The program utilizes the latest Autodesk and SolidWorks CAD software, allowing students to graduate with leading edge skills. Graduates develop skills that can be applied in building and construction, manufacturing and fabrication, woodworking, and mechanical design industries.

Updated 10/22

# ARCHITECTURAL & ENGINEERING DESIGN, A.A.S. ASSOCIATE IN APPLIED SCIENCE

*The sequencing of courses in this program begins in the fall semester.*

*Students entering in the spring or summer will likely take longer than two years to complete the program.*

Curriculum Requirements: 61 credits	Credits	Grade	Semester
<b>First Year, Fall Semester (15 credits)</b>			
ARC 106 Introduction to Architecture	3		
CAD 102 Intro to CAD	3		
CAD 115 Blueprint Reading	3		
ENG 101 College Composition	3		
MAT 126 Trigonometry	3		
<b>First Year, Spring Semester (16 credits)</b>			
ARC 107 Intro to Sustainable Design	3		
ARC 202 Building Information Modeling	3		
CAD 210 Computer Aided Drafting II	3		
PHY 151 General Physics	4		
General Education Core I	3		
<b>Second Year, Fall Semester (16 credits)</b>			
ARC 204 Energy Systems	3		
CAD 107 Solid Modeling I	3		
General Education Core II	3		
General Education Core III	3		
Program Elective	3		
<b>Second Year, Spring Semester (15 credits)</b>			
ARC 207 Construction Documents	3		
CAD 251 3D Presentation	3		
General Education Core I-IV	3		
Program Elective	3		
Open Elective	3		

Program Elective List:

Any ARC, CAD, PMT

*Articulation agreements exist between York County Community College and various colleges and universities.  
Please, contact Career and Transfer Services for information regarding these agreements.*

### DISCLAIMER

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