

## DRAFTING

To earn an associate of applied science degree in either architectural, structural, or mechanical drafting, a student must successfully complete the following general education and core requirements in addition to one of the specific concentrations listed.

### Required Program of Study for Associate of Applied Science Degree (2 years)

Core Requirements		General Education Requirements	
Course	Credits	Course	Credits
ARCH 1160 Fundamentals of Drafting .....	3	BSAD 2050 Business Communications .....	3
ARCH 1270 Computer Assisted Drafting I .....	4	ECON 1010 Personal and Business Finance .....	2
ARCH 1300 Cooperative Internship I .....	3	MATH 1020 Technical Mathematics I .....	3
ARCH 2260 Introduction to Inventor .....	3	MATH 1060 Technical Mathematics II .....	3
PHYS 2150 Structural Analysis .....	3	OFFT 1500 Microsoft Office .....	3
	<u>16</u>	PSYC 1000 Human Relations .....	2
			<u>16</u>
Core Requirements .....		16	
General Education Requirements .....		16	
Approved Electives .....		30-35	
Total Credits Required		<u>62-67</u>	

#### Approved Electives for Drafting-Architectural Concentration

Course	Credits
ARCH 1120 Materials of Construction .....	3
ARCH 1130 Introduction to Construction Documents ...	3
ARCH 1170 Introduction to Construction .....	3
ARCH 1220 Estimating for Construction .....	3
ARCH 1230 Introduction to Revit .....	4
ARCH 2020 Computer Assisted Drafting III .....	4
ARCH 2100 Survey and Site Planning .....	3
ARCH 2110 Architectural CAD I .....	4
ARCH 2150 Civil Drafting .....	2
ARCH 2210 Architectural CAD II .....	6
	<u>35</u>

#### Approved Electives for Drafting-Mechanical Concentration

Course	Credits
ARCH 1280 Introduction to SolidWorks .....	4
ARCH 1285 Geometric Dimensioning and Tolerancing ...	2
ARCH 1295 Engineering Materials and Processes .....	2
ARCH 2130 Mechanical Drafting I .....	4
ARCH 2230 Mechanical Drafting II .....	6
ENGR 1010 Introduction to Engineering Design .....	3
INDT 1015 Introduction to Manufacturing .....	2
INDT 1065 Manufacturing Technologies and Measurement ...	2
INDT 1170 Introduction to Total Quality Management ...	2
INDT 1090 Introduction to Machining .....	0.5
INDT 1095 Introduction to Machining Lab .....	1
WELD 1010 Related Welding .....	0.5
WELD 1020 Related Welding Lab .....	1
	<u>30</u>

#### Approved Electives for Drafting-Structural Concentration

Course	Credits
ARCH 1120 Materials of Construction .....	3
ARCH 1130 Introduction to Construction Documents ...	3
ARCH 1220 Estimating for Construction .....	3
ARCH 1230 Introduction to Revit .....	4
ARCH 2010 Structural CAD Drafting I .....	6
ARCH 2020 Computer Assisted Drafting III .....	4
ARCH 2200 Structural CAD Drafting II .....	6
ARCH 2220 Computer Assisted Drafting IV .....	4
	<u>33</u>

## DRAFTING - MECHANICAL CONCENTRATION

The mechanical drafting concentration trains students in 3D solid modeling, simulation, prototype, and documentation creation for the production of parts and assemblies in multiple industries including: machinery, manufacturing, heavy equipment, consumer products, and medical devices. Students will take classes covering the fundamentals of engineering drawings, theory of design process, rapid prototyping, and learn multiple CAD software applications. Students will take courses offered by the "Machining and Manufacturing Automation" program and work side-by-side with manufacturing students participating in hands-on exercises and today's manufacturing technologies. Successful graduates may find employment in a variety of industries. Job titles may include: CAD Drafter, Mechanical Drafter, Design Drafter, Design Specialist, Engineering Technician, Design Technician, CAD Designer, CAD Technician, and CAD Operator.

*(Enrollment in this program is limited and is based on the date of application.)*

### Required Program of Study for Associate of Applied Science Degree (2 years)

#### FIRST YEAR

Fall Semester	
Course	Credits
ARCH 1160 Fundamentals of Drafting .....	3
ARCH 2260 Introduction to Inventor .....	3
ARCH 1270 Computer Assisted Drafting I .....	4
OFFT 1500 Microsoft Office* .....	3
MATH 1020 Technical Mathematics I* .....	3
	<u>16</u>

Spring Semester	
Course	Credits
ARCH 1280 Introduction to SolidWorks .....	4
ARCH 1285 Geometric Dimensioning and Tolerancing ...	2
ARCH 1295 Engineering Materials and Processes .....	2
MATH 1060 Technical Mathematics II* .....	3
BSAD 2050 Business Communications* .....	3
	<u>14</u>

Summer	
Course	Credits
ARCH 1300 Cooperative Internship I .....	3
	<u>3</u>

\*See general education requirements.

#### SECOND YEAR

Fall Semester	
Course	Credits
ARCH 2130 Mechanical Drafting I .....	4
ENGR 1010 Introduction to Engineering Design .....	3
INDT 1015 Introduction to Manufacturing .....	2
INDT 1065 Manufacturing Technologies and Measurement .....	2
INDT 1170 Introduction to Total Quality Management ...	2
INDT 1090 Introduction to Machining .....	0.5
INDT 1095 Introduction to Machining Lab .....	1
WELD 1010 Related Welding .....	0.5
WELD 1020 Related Welding Lab .....	1
	<u>16</u>

Spring Semester	
Course	Credits
ARCH 2230 Mechanical Drafting II .....	6
ECON 1010 Personal and Business Finance* .....	2
PSYC 1000 Human Relations* .....	2
PHYS 2150 Structural Analysis .....	3
	<u>13</u>

Total Credit Hours 62