

Digital Design

Degree Type

Associate in Science

Type

Transfer

Division of STEAM

Associate Dean: Deborah Beall

The Digital Design A.S. program addresses a growing need for students to be trained in both the skills of CAD (Computer Aided Design) / CAM (Computer Aided Manufacturing) and experience with the creative tools and concepts of Art / Design. In addition to a core of liberal arts and sciences classes, the program coursework will be delivered as a collaborative effort between the technology faculty and studio art faculty. The interdisciplinary nature of this program will prepare students by building design thinking, problem solving, and production skills that have application in a variety of career fields such as Studio Art, Industrial Design, Engineering, and Advanced Manufacturing.

Students in this program must meet 7 of the 10 SUNY Knowledge and Skills areas, 2 core competencies (Critical Thinking and Information Literacy), and have 30 SUNY General Education credits. Please note that of the 7 Knowledge and Skills areas, the following 4 are required: Communication-Written and Oral; Mathematics and Quantitative Reasoning; Natural Sciences and Scientific Reasoning; and Diversity, Equity, Inclusion, and Social Justice. For more information on the SUNY General Education requirements please see General Education Requirements.

Graduates will be able to:

- Demonstrate fundamental drawing concepts in a variety of traditional and contemporary art media.
- Demonstrate proficiency in manipulating the major elements and materials of 2-D and 3-D design.
- Demonstrate proficiency in using AutoCAD and SolidWorks to create working drawings to expected industry standards.
- Produce 2-D drawings and 3-D models for import into computer-assisted manufacturing (CAM) software for computer numerical control (CNC) machining program generation.
- Demonstrate a fundamental knowledge in the liberal arts and sciences, to include 30 credits in at least seven of the following areas: mathematics, natural sciences, social sciences, American history, western civilization, other world civilizations, humanities, the arts, foreign language, and basic communication.

Program Requirements

Item #	Title	Credits
ENGL 1110	College Communication	3
ENGL 1020	College Composition II	3
MATH 1411	College Algebra	3
	Laboratory Science Electives	6
	Diversity, Equity, Inclusion, Social Justice (DEI/SJ) Course	3
	Social Sciences Elective	3
	Liberal Arts & Sciences Electives	3
	Digital Design Program Elective	3
ARTS 1030	Drawing I	3
ARTS 1210	Ceramics 1	3
ARTS 1310	Art History: Prehistoric to Medieval	3
ARTS 1320	Art History: Renaissance to Modern	3
ARTS 1410	Two-Dimensional Design	3
ARTS 1420	Three Dimensional Design	3
ARTS 2030	Drawing II	3
CADD 1700	Computer Aided Drafting I	3
CADD 2710	Computer Aided Drafting II	3
MECH 1050	Engineering Graphics I	3
MECH 1550	Engineering Graphics II	3
MECH 1560	CNC Programming	3
TECH 1080	Manufacturing Methods Lab	1
Total Credits		64

Course Sequencing

First Semester

Intended as a guide for academic planning. It need not be followed exactly or completed in four semesters.

Item #	Title	Credits
ENGL 1110	College Communication	3
MATH 1411	College Algebra	3
ARTS 1030	Drawing I	3
TECH 1080	Manufacturing Methods Lab	1
MECH 1050	Engineering Graphics I	3
	Diversity, Equity, Inclusion, Social Justice (DEI/SJ) Course	3

Second Semester

Item #	Title	Credits
ENGL 1020	College Composition II	3
ARTS 1210	Ceramics 1	3
ARTS 2030	Drawing II	3
	Liberal Arts & Sciences Electives	3
MECH 1550	Engineering Graphics II	3

Third Semester

Item #	Title	Credits
ARTS 1410	Two-Dimensional Design	3
ARTS 1310	Art History: Prehistoric to Medieval	3
CADD 1700	Computer Aided Drafting I	3
	Laboratory Science Elective	3
	Social Sciences Elective	3

Fourth Semester

Item #	Title	Credits
ARTS 1420	Three Dimensional Design	3
MECH 1560	CNC Programming	3
ARTS 1320	Art History: Renaissance to Modern	3
CADD 2710	Computer Aided Drafting II	3
	Digital Design Program Elective	3
	Laboratory Science Elective	3

Footnotes

*Based on placement, students might be required to take developmental and/or prerequisite classes before taking the required English and Math courses.

ENGL 1110: Students may take ENGL 1010 and SPCH 1080 in place of ENGL 1110.

*Digital Design Program Elective: Choose from ARTS 1400, ARTS 1450, ARTS 1500, ARTS 1505, ARTS 2210, ARTS 2620, ARTS 2999, ELEC 1010, MACH 1040, MECH 1570, TECH 1030, or TECH 1120.