DESIGN (DSGN)

DSGN 101 Introduction to Product Design (3 Credits)
Introduction to the product design profession, design thinking methods, and processes. Examines manufacturing technologies, materials, fabrication processes, sustainable design, and design successes and failures. Requires developing and pitching a product idea. Repeatable for credit.

DSGN 103 User Experience (UX) Research Methodologies (4 Credits)
Recommended to be taken with: DSGN 104.
Introduces students to methods for understanding their user in order to guide their design decisions. Emphasizes how to conduct user research using different research methodologies, the design of studies and interviews, and how to analyze research and present research findings. Teaches the fundamentals of user research methodologies.

DSGN 104 UX Design Principles (4 Credits)
Recommended to be taken with: DSGN 103.
Introduces the fundamental design principles of User Experience (UX). Emphasizes how to analyze and apply principles to UX design. Builds on concepts from UX Research Methods.

DSGN 130 Product Design Fundamentals (3 Credits)
Recommended to be taken with: DSGN 101.
Preparation for safely operating and maintaining a product workshop. Provides hands-on training setting up efficient production workflow plans for product fabrication. Develops skills to design and fabricate products, branding, packaging, and presentations. Repeatable for credit.

DSGN 140 3D Modeling Software: Basics (3 Credits)
Recommended to be taken with: DSGN 101.
Provides the tools and techniques to create 3D models, technical drawings, product renderings, and 3D prints using industry-standard design software. The skills developed during this course facilitate communication with clients and are applicable to design industries worldwide. Repeatable for credit.

DSGN 150 Design for Production (3 Credits)
Prerequisites: DSGN 130 and DSGN 140.
Provides the tools and techniques to generate computer-aided manufacturing (CAM) files for production. Preparation for analyzing design and material data to determine machine tooling and machining speeds and feeds. Provides hands-on training designing for production and safely operating CNC routers, laser engravers, and 3D printers. Repeatable for credit.

DSGN 180 Co-op Work Experience Design (1-4 Credits)
Prerequisites: Instructor approval.
Provides experience in which students apply previous classroom learning in an occupational setting for design. Credits depend on the number of hours worked. P/NP grading. Repeatable for credit.

DSGN 197PD Portfolio Development: Product Design (1 Credit)
Prerequisites: DSGN 101; DSGN 130; DSGN 140 and DSGN 150.
Develop a product design portfolio. Create a resume, website, and branded materials. Learn how to search for job opportunities, apply for grants and scholarships, and interview for jobs. Review career pathways, as well as art school and university requirements. Developed body of design work suggested for the course. Repeatable for credit.

DSGN 199 Selected Topics: Design (1-4 Credits)
Provides a learning experience in Design not currently available; this course is in development to be proposed as a permanent course. Repeatable for credit.

DSGN 240 3D Modeling Software: Intermediate (3 Credits)
Prerequisites: DSGN 140.
Recommended to be taken with: DSGN 150.
Provides the tools and techniques to digitally design and test innovative products, produce custom product renderings and animations, and generate CAD models from 3D scanning for 3D printing. Repeatable for credit.

DSGN 250 Design for Robotic Production (3 Credits)
Prerequisites: DSGN 130 and DSGN 140.
Provides the tools and techniques to design for robotic production. Preparation for analyzing design and material data to determine machine tooling and machining speeds and feeds. Provides hands-on training for safely operating milling and 3D printing robotic systems. Repeatable for credit.

DSGN 257 Metal Arts: Production (3 Credits)
Prerequisites: ART 158B1.
Introduces tools and techniques for creating multiple metal objects using production processes. Repeatable for credit.

DSGN 296PD Creative Team: Product Design (1 Credit)
Prerequisites: Instructor Approval Required.
Recommended preparation: DSGN 130 and DSGN 140 .
Provides experience for students to apply previous classroom learning as a creative team to develop product designs for various assigned professional work. P/NP grading. Repeatable for credit.

DSGN 298 Independent Study: Design (1-4 Credits)
Prerequisites: Instructor approval required.
Recommended preparation: Prior coursework in the discipline.
Individualized, advanced study in product design to focus on outcomes not addressed in existing courses or of special interest to a student. P/NP grading. Repeatable for credit.

DSGN 299 Selected Topics: Design (1-4 Credits)
Provides a learning experience in Design not currently available; this course is in development to be proposed as a permanent course. Repeatable for credit.