## Product Design and Innovation

### Program of Study and Scheduling Map

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+Art 4640: Design Internship (3) is taken during either the summer after Year #2 or Year #3.
+Study Abroad credit for General Education Area V (4) should be schedule for the summer sessions.
4. New Course Descriptions

**ART 1600 Product Design I**
Course Description: This course provides an overview of the innovative product development process and focuses on problem definition, articulation, and resolution. The course will investigate the movements in the history of product design and the development of materials, production, technologies, consumption and other social and cultural concerns that impact the field. Students will learn about design concepts and methodology through lectures, discussions, and problem-solving assignments. Historical and contemporary case studies will be examined and analyzed.

This proposed new course will be offered once a year in the Spring semester.

Prerequisites & Corequisites: ART 1040, and ART1080, and either ART 2200 or ART 2210 or ART 2220 or ART 2230. ART3660 Design Seminar must be taken concurrently.

Credits: 3 hour

**ART 1610: Drawing for Design**
Course Description: Drawing for Design provides the transitional training from general drawing skills taught in foundation studio art courses to industry-specific methods of visual communication relevant to a career in product design. Students will develop specialized skills for design-based drawing that will help them communicate appearance, function, material and style.

This course will be offered once annually in the Fall semester.

Prerequisites & Co requisites: ART 1040 and ART 1050

Credits: 3

**ART 2650: Product Design II**
Course Description: This course focuses on developing a better understanding of design processes through making and learning specific fabrication materials and methods. Students gain experience in giving form to objects and products. Prototyping techniques and digital design tools will be explored. In addition, the course will investigate the movements in the history of product design and the development of materials, production, technologies, consumption and other social and cultural concerns that impact the field.

This proposed new course will be offered once a year in the Spring semester.

Prerequisites & Corequisites: ART 1600 Product Design I, and ART 1610 Drawing for Design. Art 3660 Design Seminar must be taken concurrently. Credits: 3
ART 2660: Materials and Processes
Course Description: Materials and Processes introduces students to a broad sampling of materials and methods available for industrial manufacturing. Through an understanding of both fundamental and innovative materials, students will develop a rich palette from which to develop industry-leading products. Through a combination of studio coursework in state of the art labs and trips to the region's many top manufacturing companies, students will develop a comprehensive understanding of the progression from final prototype to the production of market-ready goods, systems and services. Through a series of product simulations, historical case studies, and critiques from working professionals, students will be trained to consider relevant concerns that may effect the manufacturing process, such as sustainability, ethical sourcing, and best practices for developing robust systems that can succeed in a global business environment.

This course will be offered once annually in the Spring semester.

Prerequisites & Co requisites: ART 1040 and ART 1050 and ART 1070 and ART 1080 and ART 1600

Credits: 3

ART 3650: Product Design III
Course Description: This course prepares students to apply and connect previously acquired skills and research methods in response to design problems, production constraints, and techniques. The course will also focus on an understanding of how design relates to people and the growing importance of social and environmental responsibilities within the field of product design. In addition, the course will also investigate the movements in the history of product design and the development of materials, production, technologies, consumption and other social and cultural concerns that impact the field.

This proposed new course will be offered once a year in the Spring semester.

Prerequisites & Corequisites: Art 2650 Product Design II. ART3660 Design Seminar must be taken concurrently.

Credits: 3 hours
ART 3660 (A/B/C/D) Design Seminar
The Design Seminar course is a bi-weekly (7-8 times a semester) lecture series that runs in the Spring semester. It is linked to the following courses:

Year 1: ART 1600 Product Design I ART 3660 (A)
Year 2: ART 2650 Product Design II ART 3660 (B)
Year 3: ART 3650 Product Design III ART 3660 (C)
Year 4: ART 4970 Product Design V ART 3660 (D)

Lectures will be given by visiting industrial designers on their area of study, expertise, contemporary trends in the industry, etc.

This course provides an overview of the product development process. It focuses on the design process (which includes, but is not limited to: problem definition, research, analysis, ideation, articulation, development, feedback, iteration, testing, and production). Lectures will explore current trends and issues in the field. Students will learn about the history of product design, design concepts, and methodology through discussions. In addition, the course will investigate the movements in the history of product design and the development of materials, production, technologies, consumption and other social and cultural concerns that impact the field. Historical and contemporary case studies will be examined and analyzed.

Prerequisites & Corequisites: Art 1040, 1080, and either ART 2200 or ART 2210 or ART 2220 or ART 2230.

Credits: 1 credit
Design Seminar is a repeatable course for up to 4 credits.

ART 3680 Special Topics in Design
Course Description: Any of the following topics could be offered: furniture design, medical equipment design, transportation design, experience design, interaction design, graphic design, and the design of consumer appliances, tools, computer devices, or any additional topic of interest.

The course will be offered once a year in the Fall semester.

Prerequisites & Corequisites: ART 2650 and ART 2660 or Faculty Approval for non-majors. No Corequisites.

Credits: 3 hours
ART 4640 Design Internship
Course Description: Design Internship provides students with work experience and exposure to professional practice through an internship in a professional setting. The Internship can be taken in the summer between the second and third and/or the third and fourth years of the Product Design program.

Prerequisites & Corequisites: ART 1600 Product Design I and ART 3660 Design Seminar and ART 1610 Drawing for Design and ART 2660 Materials and Processes and ART 2650 Product Design II

Credits: 3 hours

ART 4650: Product Design IV
Course Description: This course focuses on design thinking and interdisciplinary product design development. A research and systems-based approach will be utilized to develop design concepts and ideas. Students will explore various design methodologies and investigate how human factors, aesthetics, and product semantics affect a product’s success. Human centered design approach will be explored. In addition, the course will investigate the movements in the history of product design and the development of materials, production, technologies, consumption and other social and cultural concerns that impact the field.

This proposed new course will be offered once a year in the Fall semester.

Prerequisites & Corequisites: Art 3650 Product Design III. ART3660 Design Seminar must be taken concurrently.

Credits: 3 hours

ART 4670: Thesis Project
Course Description: ART 4670 Thesis Project is the capstone course for the student’s education in Product Design. Students will be required to present a suite of visualizations, prototypes and research that comprehensively describe an original product or system for use. The students’ thesis projects include descriptions and documentation of their trajectory from the identification of a problem or market opportunity, to the unveiling and early testing/use of their projects.

This course will be offered once annually in the spring semester.

Prerequisites & Co requisites: ART 3650: Product Design III

Credits: 3
ART 4970: Product Design V
Course Description: This course is designed for senior Product Design students who will be entering the profession upon graduation. Students will have the opportunity to engage in a variety of design activities including conceptual development, research, material/technical exploration, and visual experimentation. The course will investigate the movements in the history of product design and the development of materials, production, technologies, consumption and other social and cultural concerns that impact the field. In addition, students will collaboratively work together to explore spatial environment as a medium to create and install a graduation exhibition. Attention will also be given to the development of a design portfolio and a variety of self-promotional materials in anticipation of a job search.

This proposed new course will be offered once a year in the Spring semester.

Prerequisites & Corequisites: Art 4650 Product Design IV. ART3660 Design Seminar must be taken concurrently.

Credits: 3 hours