UNIVERSITY OF MINNESOTA
Driven to Discover℠

Twin Cities Campus

Product Design B.S.

Product Design

College of Design

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2018
- Required credits to graduate with this degree: 120
- Required credits within the major: 89 to 91
- Degree: Bachelor of Science

The Product Design program is a creative, interdisciplinary major that blends elements of design, engineering, business, and humanities. This program provides methods and tools for inventing our future in the form of innovative objects, systems, and services. In addition to design fundamentals, this program is strengthened by the sciences. Combining these disciplines allows students to design desirable products and services (both physical and digital) that are also functional, marketable, and human-centered. This program enables students to take ideas from concept to reality and succeed in market.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

Freshman and transfer students students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college

For information about University of Minnesota admission requirements, visit the Office of Admissions website.

Required prerequisites

Pre-major coursework

Courses to be completed prior to portfolio review to attain full major status.

DES 2701 - Creative Design Methods (3.0 cr)
PDES 2702 - Concept Sketching (3.0 cr)
PDES 2703 - Concept Visualization and Presentation 1 (3.0 cr)
PDES 2777 - Product Form and Model Making (3.0 cr)
PHYS 1101W - Introductory College Physics I [PHYS, WI] (4.0 cr)
or PHYS 1301W - Introductory Physics for Science and Engineering I [PHYS, WI] (4.0 cr)
MATH 1271 - Calculus I [MATH] (4.0 cr)
or MATH 1371 - CSE Calculus I [MATH] (4.0 cr)

General Requirements

All students are required to complete general University and college requirements including writing and liberal education courses. For more information about University-wide requirements, see the liberal education requirements.Required courses for the major or minor in which a student receives a D grade (with or without plus or minus) do not count toward the major or minor (including transfer courses).

Program Requirements

Admission to the full major status program is determined by a competitive holistic review, which includes an interview, GPA, and a portfolio review after completion of pre-major coursework.

Product Design Core

DES 3131 - User Experience in Design (4.0 cr)
DES 3201 - Career and Internship Preparation for Design (1.0 cr)
ME 2011 - Introduction to Engineering (4.0 cr)
MGMT 3015 - Introduction to Entrepreneurship (4.0 cr)
PDES 2704 - Concept Visualization and Presentation 2 (3.0 cr)
PDES 2771 - Product Design Studio 1 (4.0 cr)
PDES 2772 - Product Design Studio 2 (4.0 cr)

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Information current as of March 29, 2024

PDES 3704 - Computer-Aided Design 1: Solid Modeling and Rendering (3.0 cr)
PDES 3706 - Designing for Manufacture (4.0 cr)
PDES 3711 - Product Innovation Lab (4.0 cr)
PDES 3771 - Product Design Studio 3 (4.0 cr)
PDES 4701W - Product Design Studio 4 [WI] (4.0 cr)
PDES 4702W - Capstone Design Studio [WI] (4.0 cr)
PHYS 1102W - Introductory College Physics II [PHYS, WI] (4.0 cr)
or PHYS 1302W - Introductory Physics for Science and Engineering II [PHYS, WI] (4.0 cr)
CSCI 1103 - Introduction to Computer Programming in Java (4.0 cr)
or CSCI 1133 - Introduction to Computing and Programming Concepts (4.0 cr)
ANTH 4121 - Business Anthropology (3.0 cr)
or ANTH 4035 - Ethnographic Research Methods (3.0 cr)
ANTH 1003W - Understanding Cultures [SOCS, GP, WI] (4.0 cr)

Internships

Students perform two separate internships, one credit each term.
PDES 3196 - Product Design Internship (2.0 cr)

Electives

Take 2 - 3 course(s) totaling 6 - 8 credit(s) from the following:

Interaction and Service

Take 0 - 3 course(s) totaling 0 - 6 credit(s) from the following:
•ANTH 4035 - Ethnographic Research Methods (3.0 cr)
•CSCI 4611 - Programming Interactive Computer Graphics and Games (3.0 cr)
•CSCI 5127W - Embodied Computing: Design & Prototyping [WI] (3.0 cr)
•DES 3309 - Storytelling and Design (3.0 cr)
•DES 5185 - Human Factors in Design (3.0 cr)
•GDES 2342 - Web Design (3.0 cr)
•GDES 3353 - Packaging and Display (3.0 cr)
•GDES 5341 - Interaction Design (3.0 cr)
•GDES 5386 - Fundamentals of Game Design (3.0 cr)
•HUMF 5001 - Foundations of Human Factors/Ergonomics (3.0 cr)
•HUMF 5874 - Human Centered Design to Improve Complex Systems (4.0 cr)
•PSY 3031 - Introduction to Sensation and Perception (3.0 cr)
•SCO 3051 - Service Management (2.0 cr)

or **Entrepreneurship**

Take 0 or more course(s) from the following:
•ANTH 4121 - Business Anthropology (3.0 cr)
•MGMT 4008 - Entrepreneurial Management (4.0 cr)
•MGMT 4055 - Managing Innovation and Change In Action (2.0 cr)
•MGMT 4080W - Applied Technology Entrepreneurship [WI] (4.0 cr)
•MGMT 4175W - New Business Feasibility and Planning [WI] (4.0 cr)
•MGMT 4171W - Entrepreneurship in Action I [WI] (4.0 cr)
•MGMT 4172 - Entrepreneurship in Action II (4.0 cr)

or **Sustainability**

Take 0 or more course(s) from the following:
•CEGE 5571 *{Inactive}*[GP] (3.0 - 4.0 cr)
•CEGE 5572 *{Inactive}*(1.0 - 2.0 cr)
•CEGE 5573 *{Inactive}*(1.0 - 5.0 cr)
•ESPM 3603 - Environmental Life Cycle Analysis (3.0 cr)
•ESPM 3605 - Recycling: Extending Raw Materials [TS] (3.0 cr)
•GCC 5005 - Innovation for Changemakers: Design for a Disrupted World [GP] (3.0 cr)
•MM 4311 - Sustainable Lean Manufacturing: Eliminating the Waste (3.0 cr)

or **Design as Craft**

Take 0 or more course(s) from the following:
•ANTH 5221 - Anthropology of Material Culture (3.0 cr)
•ARTS 1802 - Introduction to Sculpture: Understanding the Fundamentals of the Practice of Sculpture [AH] (4.0 cr)
•ARTS 1801 - Introduction to Ceramics: Wheel-Throwing and Hand-Building Techniques [AH] (4.0 cr)
•DES 3309 - Storytelling and Design (3.0 cr)
•DES 3321 - Furniture Design: Exploration (3.0 cr)
•DES 4322 - Furniture Design, Practice (4.0 cr)
•DES 3341 *{Inactive}*(3.0 cr)
•GDES 3353 - Packaging and Display (3.0 cr)
•MM 3305 - Advanced 3D Printing for Innovative Business Practices (3.0 cr)
•PDES 3705 - History and Future of Product Design (3.0 cr)
•PDES 3715 - Design and Food (4.0 cr)

or **Marketing and Merchandising**

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Take 0 or more course(s) from the following:
- ADES 3217 - Fashion: Trends and Communication (3.0 cr)
- ANTH 4035 - Ethnographic Research Methods (3.0 cr)
- ANTH 4121 - Business Anthropology (3.0 cr)
- ANTH 5221 - Anthropology of Material Culture (3.0 cr)
- DES 3309 - Storytelling and Design (3.0 cr)
- GDES 3353 - Packaging and Display (3.0 cr)
- MKTG 3001 - Principles of Marketing (3.0 cr)
- MKTG 3011 - Marketing Research (4.0 cr)
- MKTG 3041 - Buyer Behavior (4.0 cr)
- RM 2215 - Introduction to Retail Merchandising (3.0 cr)
- RM 3243 - Visual Merchandising (2.0 cr)

or **Production**

Take 0 or more course(s) from the following:
- MM 3001W - Manufacturing in the Global Economy [WI] (3.0 cr)
- MM 4039 - The Science of Sourcing: Partnerships for Success (3.0 cr)
- MM 4201 - Quality Engineering and Management (3.0 cr)
- SCO 3001 - Sustainable Supply Chain and Operations (3.0 cr)

Upper Division Writing Intensive within the Major

Students are required to take one upper division writing intensive course within the major. If that requirement has not been satisfied within the core major requirements, students must choose one course from the following list. Some of these courses may also fulfill other major requirements.

Take 0 - 1 course(s) from the following:
- MGMT 4080W - Applied Technology Entrepreneurship [WI] (4.0 cr)
- MGMT 4175W - New Business Feasibility and Planning [WI] (4.0 cr)
- MGMT 4171W - Entrepreneurship in Action I [WI] (4.0 cr)
- PDES 4701W - Product Design Studio 4 [WI] (4.0 cr)

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