

INDUSTRIAL DESIGN: CONCENTRATION IN PRODUCT DESIGN AND DEVELOPMENT SF SCHOLARS ROADMAP

Course	Title	Units
First Year		
Fall Semester		
ENG 114	Writing the First Year: Finding Your Voice (A2) ¹	3
<u>GE Area A</u> ²		3
<u>GE Area B: Quantitative Reasoning (B4)</u> ³		3
<u>GE Area C</u>		3
<u>SF State Studies or University Elective</u>		3
	Units	15
Spring Semester		
ECON 101	Introduction to Microeconomic Analysis (Major Core, D1)	3
PHYS 101	Conceptual Physics (Major Core, B1)	3
<u>GE Area A</u>		3
<u>GE Area C</u>		3
<u>GE Area E</u>		3
	Units	15
Second Year		
Fall Semester		
<u>GE Area B: Life Science (B2) and Laboratory Science (B3)</u> ⁴		3-4
<u>GE Area D</u>		3
<u>SF State Studies or University Elective - Take Three</u>		9
	Units	15-16
Spring Semester		
<u>GE Area C</u>		3
<u>GE Area D</u>		3
<u>SF State Studies or University Elective - Take Three</u>		9
	Units	15
Third Year		
Fall Semester		
DES 305	Lab Safety Basics (Major Concentration)	1
DES 322	Computer Graphic Imaging (Major Foundation)	3
DES 323	Visual Design Literacy (Major Prerequisite)	3

DES 356	A History of Design and Technology (Major Core)	3
DES 370	Introduction to Design (Major Core)	1
MKTG 431	Principles of Marketing (Major Core)	3
	Units	14
Spring Semester		
DES 300	Design Process (Major Foundation)	3
DES 320	Drafting and Sketching for Design (Major Foundation)	3
DES 321	Technical Drawing I: Introduction to CAD (Major Concentration)	3
DES 324GW	Research and Writing for Design - GWAR (Major Foundation)	3
<u>Concentration Electives (9 Units Total) - Take One</u> ⁵		3
	Units	15
Fourth Year		
Summer Semester		
<u>GE Area UD-C: Upper-Division Arts and/or Humanities (Consider SF State Studies Course)</u>		3
<u>GE Area UD-D: Upper-Division Social Sciences (Consider SF State Studies Course)</u>		3
	Units	6
Fall Semester		
DES 310	Product Design I (Major Concentration)	3
DES 420	Rapid Visualization (Major Concentration)	3
DES 421	Technical Drawing II: 3-D Solid Modeling (Major Concentration)	3
<u>Concentration Electives (9 Units Total) - Take Two</u> ⁵		6
	Units	15
Spring Semester		
DES 410	Product Design II (Major Concentration)	3
DES 460	Rapid Prototyping and Manufacturing Systems (Major Core)	3
DES 700	Seminar in Design Research (Graduate Core)	3
<u>Graduate Elective (9 units total) - Take One</u> ⁶		3

GE Area UD-B: Upper-Division Physical and/or Life Sciences (Consider SF State Studies Course)	3
Units	15

Fifth Year

Summer Semester

DES 505	Senior Design Project (Major Culminating Requirement)	3
Units		3

Fall Semester

DES 724	Graduate Research Methods and Scholarly Writing for Creative Disciplines (Graduate Core)	3
DES 800	Seminar in Design Topics (Graduate Core)	3
DES 852	Directed Experience in Design (Graduate Core)	3
Graduate Elective (9 Units Total) - Take One ⁶		3
Units		12

Spring Semester

DES 755	Seminar in Design Management (Graduate Core)	3
DES 805	Seminar in Design Methodology (Graduate Core)	3
DES 894 or DES 898	Creative Work Project (Graduate Core) or Master's Thesis	3
Graduate Elective (9 units total) - Take One ⁶		3
Units		12
Total Units		152-153

¹ ENG 114 can only be taken if you complete Directed Self-Placement (DSP) and select ENG 114; if you choose ENG 104/ENG 105 through DSP you will satisfy A2 upon successful completion of ENG 105 in the second semester; multilingual students may be advised into alternative English courses.

² To avoid taking additional units, it is recommended that you meet **SF State Studies** requirements (AERM, GP, ES, SJ) within your GE.

³ Depending on courses completed through Early Start, students in Pathway/Category III or IV may be required to enroll in a support course to complement their Quantitative Reasoning/B4 requirement. There are multiple course options for this pathway. Before enrolling in a B4 course, students should verify their MATH Pathway/Category in their [Student Center](#). Information regarding the courses that correspond with your MATH Pathway/Category can be found on the [Developmental Studies Office Website](#).

⁴ Consider taking a class combined with a laboratory or a separate lab to fulfill B3 if not already satisfied.

⁵ **Electives (9 units)**

- ACCT 100 Introduction to Financial Accounting (3 units)
- DES 210 Industrial Science (3 units)
- DES 332 Electricity and Electronics (3 units)
- DES 340 Design and Materials (3 units)
- DES 360 Model Development Laboratory (3 units)
- DES 475 Topics in Design (3 units)
- DES 524 Information Design II: Exhibit Design (3 units)
- DES 575 Workshop (3 units)*
- DES 576 Practical Experience: Internship (3 units)*

⁶ **Graduate Electives (9 units)**

Select supporting upper-division/graduate courses as approved by Graduate Coordinator.

* Students may choose DES 575 **or** DES 576, but may not choose DES 575 **and** DES 576.