

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY**  
**College of Architecture and Urban Studies**  
**School of Architecture + Design**  
**Bachelor of Science in Industrial Design**  
**Roadmap For Students Graduating in the Calendar Year 2022**  
**Roadmap For Students Entering in the Calendar Year 2020-2021**

	Fall	Credits	Spring	Credits
First Year	ARCH 1015 Foundation Design Laboratory	6	ARCH 1016 Foundation Design Laboratory	6
	MATH 1535 Geometry and Math of Design #5f Quantitative & Computational Thinking: Required	3	MATH 1536 Geometry and Math of Design #5f Quantitative & Computational Thinking: Required	3
	ENGL 1105 First Year Writing #1f Discourse: Approved Pathways Course	3	ENGL 1106 First Year Writing #1f Discourse: Approved Pathways Course	3
	IDS 2114 History of Industrial Design #6a Critique and Practice in Art and Design: Required	3	IDS 2124 History of Modern Industrial Designers #6d Critique and Practice in Art and Design: Required	3
	Semester Credits	15	Semester Credits	15
			First Year Credits	30
Second Year	IDS 2015 Industrial Design Laboratory II	5	IDS 2016 Industrial Design Laboratory II	6
	IDS 3224 Design Competencies: Workshop Topics Module *See Note 2	1	IDS 2044 Human Factors	3
	IDS 2034 Design Visualization	3	IDS 2304 Computer Aided Industrial Design	3
	IDS 3124 Material and Processes	3	IDS 3204/IDS 3224/IDS 3234 Topics Module *See Note 2	1
	#4 Reasoning in Natural Sciences: Approved Pathways Course	3	#4 Reasoning in Natural Sciences: Approved Pathways Course	3
	Semester Credits	15	Semester Credits	16
			Second Year Credits	31
Third Year	IDS 3015 Industrial Design Laboratory III	6	IDS 3016 Industrial Design Laboratory III	6
	IDS 3514 Design Research	3	#3 Reasoning in Social Sciences: Approved Pathways Course	3
	ART 2385 Survey of Western Art History #2 Critical Thinking in the Humanities: Required	3	ART 2386 Survey of Western Art History #2 Critical Thinking in the Humanities: Required	3
	IDS 3204/IDS 3224/IDS 3234 Topics Module *See Note 2	1	IDS 3204/IDS 3224/IDS 3234 Topics Module *See Note 2	1
	#5a Advanced/Applied Quantitative & Computational Thinking: Approved Pathways Course	3	#1a Advanced/Applied Discourse: Approved Pathways Course	3
	Semester Credits	16	Semester Credits	16
			Third Year Credits	32
Fourth Year	IDS 4015 Industrial Design Laboratory IV	6	IDS 4016 Industrial Design Laboratory IV	6
	IDS 4044 Professional Practice and Entrepreneurship	2	#3 Reasoning in Social Sciences: Approved Pathways Course	3
	Professional Elective *See Note 3	3	Professional Elective *See Note 3	3
	ARCH 3514 Design Related Media	3	#7 Critical Analysis of Identity and Equity in the United States: Approved Pathways Course	3
	IDS 3204 Professional Development: Portfolio Topics Module *See Note 2	1	IDS 3204/IDS 3224/IDS 3234 Topics Module *See Note 2	1
	Semester Credits	15	Semester Credits	16
			Third Year Credits	31
<b>Total Credits for Bachelor in Industrial Design</b>				<b>124</b>

**Course Notes**

1] Two summer studios are offered: IDS 2214 - IDS Studio for Minors for the minor degree; and IDS 3214 - IDS Summer Studio for the major degree. The summer studio for minors is required for that degree. The summer studio for majors is available with faculty approval.

2] IDS 3204, 3224, 3234: Topics in Industrial Design; IDS 3204: Topics in Professional Development; IDS 3224: Topics in Design Competencies; IDS 3234: Topics in Design Theory. 6 credit hours from any of the Topics courses are required for completion of degree; 2 of the 6 credit hours must be used for these subtopics: Portfolio (1 credit) and Workshop (1 Credit). The subtopic courses are short, usually 5 weeks (2 contact hours per week) and 1 credit hour; however, the time and credit hours may vary depending on the subject. Subtopic offerings may be repeated with instructor's permission. The following are examples of subtopics offered:

IDS 3204: Topics in Professional Development | Portfolio; Service Learning (client/civic engagement); Public Speaking; Social Entrepreneurship

IDS 3224: Topics in Design Competencies | Software; Model Making; Workshop (wood, metal, plastics); Design Visualization; Packaging, Furniture, or Exhibit Design

IDS 3234: Topics in Design Theory | Product Semantics; Ethics; Sustainability; Universal Design; Cross-Cultural Design

3] Professional elective requirements can be fulfilled from various courses throughout campus. The following subjects are encouraged: Material Science, Wood Science, Ceramics, Photography, Metals and Metal Processes, Marketing, Technical Writing, Public Speaking, Sculpture, Color Theory and Digital Art. Alternative professional elective courses may be substituted in coordination with the Program Chair of Industrial Design.

4] Foreign Language Requirement: students who did not complete 2 units of a foreign language in high school must earn 6 credits of a college foreign language, such credits to be in addition to those normally required for graduation.

**GPA Requirements**

In-major GPA requires a grade of C+ or better to successfully complete a Industrial Design Course. If a student's GPA drops below 2.3 in IDS courses, courses with a grade below 2.3 must be repeated to elevate the GPA to 2.5 before continuing in the degree. In-major GPA is calculated on all IDS courses. A minimum 2.3 GPA in IDS courses and a minimum overall 2.0 GPA is required for graduation.

**Satisfactory Progress Towards Degree**

The University requires every department to establish benchmarks by which their majors can demonstrate that they are making satisfactory progress towards a degree. In addition to successful completion of the University requirements (See Satisfactory Progress in Academics chapter of the Undergraduate Catalog), in the case of Industrial Design, students must have completed ARCH 1015-1016 with a minimum of grade point average of 2.0. Students receiving below a B- in IDS 2015, 2016, 3015, 3016, 4015 are subject to review by the IDS faculty for satisfactory progress, perhaps resulting in a requirement for additional course work, including but not limited to, a summer studio requirement (IDS 3214).

**Restricted Major Requirements**

Students who make application to Industrial Design through the internal transfer process must meet the following requirements prior to entering the major:

- 1) Min 2.5 GPA in all courses prior to ARCH 1015
- 2) Application to Summer Qualifying Design Lab; Interview for Summer Qualifying Design Lab
- 3) Faculty Review of Summer Work and 3.5 min in Lab for admission to 2nd Year Lab
- 4) Faculty Review of Summer Work and < 3.5 and > 2.0 min in Lab for admission to 1st Year Lab

**Prerequisites**

Some courses listed on this checksheet may have prerequisites; please consult the University Course Catalog or check with your advisor for more information