

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
College of Architecture, Arts, and Design
School of Design
Bachelor of Science in Industrial Design
For students date of entry under UG Catalog 2023-24

I. Pathways General Education	45 C required
II. Industrial Design Degree Core Courses	35 C required
III. Major Required Courses	35 C required
IV. Professional Elective Courses	9 C required
TOTAL CREDIT HOURS	124 C required

Departmental Policies

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, the student must have completed ARCH 1015-1016 with a minimum of grade point average of 2.0 for the courses. If a student receives below a C- in IDS 2015, IDS 2016, IDS 3015, IDS 3016, IDS 4015, students will not be able to progress to the next semester of design laboratory and the course will need to be repeated.

GPA Requirements

If a student's in-major GPA drops below 2.3, IDS courses with a grade below 2.0 must be repeated to elevate the in-major GPA to 2.5 before continuing in the degree. In-major GPA is calculated on all IDS courses. A minimum in-major 2.3 GPA and a minimum overall 2.0 GPA is required for graduation.

Restricted Major Requirements

Students who submit an 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 3.0 min in Lab for admission to 2nd Year Lab
- 4) Faculty Review of Summer Work and < 3.0 and > 2.0 min in Lab for admission to 1st Year Lab

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.

***Prerequisites**

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

I. Pathways General Education	45 C required
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#1 Discourse

ENGL 1105 First-Year Writing (1f)	9 C required
ENGL 1106 First-Year Writing (1f)	_____ 3
Pathways Course (1a)	_____ 3

#2 Critical Thinking in the Humanities

ART 2385 Survey of the History of Western Art	6 C required
ART 2386 Survey of the History of Western Art	_____ 3
	_____ 3

#3 Reasoning in the Social Sciences	6 C required
Pathways Course	_____ 3
Pathways Course	_____ 3

#4 Reasoning in the Natural Sciences	6 C required
Pathways Course	_____ 3
Pathways Course	_____ 3

#5 Quantitative and Computational Thinking (See Course Note 4)	9 C required
Math 1014 + Math 1025 or Math 1025 + Math 1026 or Math 1535 + Math 1536 (5f)	_____ 3 + _____ 3
Pathways Course (5a)	_____ 3

#6 Critique and Practice in Design and the Arts	6 C required
IDS 2114 History of Industrial Design (6a)	_____ 3
IDS 2124 History of Modern Industrial Designers (6d)	_____ 3

#7 Critical Analysis of Identity & Equity in the US	3 C required
Pathways Course	_____ 3

II. Industrial Design Degree Core Courses	35 C required
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IDS 2015 Industrial Design Lab II *	_____ 5
IDS 2016 Industrial Design Lab II *	_____ 6
IDS 3015 Industrial Design Lab III *	_____ 6
IDS 3016 Industrial Design Lab III *	_____ 6
IDS 4015 Industrial Design Lab IV *	_____ 6
IDS 4016 Industrial Design Lab IV *	_____ 6

III. Major Required Courses	35 C required
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ARCH 1015 Foundation Design Laboratory	_____ 6
ARCH 1016 Foundation Design Laboratory	_____ 6
IDS 2044 Human Factors *	_____ 3
IDS 2034 Design Visualization *	_____ 3
IDS 2304 Computer Aided Industrial Design *	_____ 3
IDS 3124 Materials and Processes	_____ 3
IDS 3514 Design Research *	_____ 3
IDS 4044 Professional Practice and Entrepreneurship *	_____ 2
Take 6 credits from the following:	_____ 6 (See Course Note 2)
IDS 3204: Topics in Professional Development	
IDS 3224: Topics in Design Competencies	
IDS 3234: Topics in Design Theory	

IV. Professional Elective Courses	9 C required
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COURSE 3xxx-4xxx Professional Elective	_____ 3 (See Course Note 3)
COURSE 3xxx-4xxx Professional Elective	_____ 3 (See Course Note 3)
COURSE 3xxx-4xxx Professional Elective	_____ 3 (See Course Note 3)

TOTAL CREDIT HOURS	124 C required
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Notes

1] IDS 2214 - IDS Studio for Minors is available in the summer for the minor degree.

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, 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 at 3000 or 4000 level can be approved as professional electives: IDS, ARCH, ITDS, LAR, ART, SOC, AHRM, PSYC, COMM, CS, ENGE, ENGL, HUM, DRS, MGT, MKTG, PHIL, RED, SBIO, STS. Enrollment is based on space available and prerequisites student has completed. Alternative professional elective courses may be substituted in coordination with the Program Chair of Industrial Design.

4] Students may choose from the three #5f Quantitative & Computational Thinking sequence options approved for IDS: Math 1014 + Math 1025 or Math 1025 + Math 1026 or Math 1535 + Math 1536.

5] Industrial Design Students enrolled in the Calhoun Discovery Honors Program may make the following substitutions to meet the requirements of their both their Degree and the Honors Diploma:

COMM 2754H Topics in Communicating about Technology Innovation may be substituted for ENGL 1106 First Year Writing as a #1 Discourse Pathways Course and is cross-listed as a the #7 Critical Analysis of Identity & Equity in the US Pathways Course.

COMM 2764H Topics in Multimedia Communication about Technology Innovation is required as #1a Advanced/Applied Discourse Pathways Course.

UH 2814 Topics in Social Sciences for Technology Innovation for Societal Impact is required as a #3 Reasoning in Social Science Pathways Course.

UH 2744 Foundational Topics in Computing in Technology Innovation for Societal Impact may be substituted for MATH 1535 Geometry & Mathematics of Design as a #5 Quantitative and Computational Thinking Pathways Course.

UH 2764 Advanced Topics in Engineering in Technology Innovation for Societal Impact is required as the #5 Advanced/Applied Quantitative and Computational Pathways Course.

UH 2855 Calhoun Transdisciplinary Fusion Studio may be substituted for 3 credits that fill the requirements of a Professional Elective.

UH 2856 Calhoun Transdisciplinary Fusion Studio may be substituted for 3 of the 6 required credits of IDS 3204, 3224, 3234: Topics in Industrial Design.

UH 3855 Calhoun Transdisciplinary Design Studio may be substituted for 3 credits that fill the requirements of a Professional Elective.

UH 3856 Calhoun Transdisciplinary Design Studio may be substituted for 3 credits that fill the requirements of a Professional Elective.

Students entering through the Calhoun Discovery Honors Program must complete UH 4855 and UH 4856 Calhoun Transdisciplinary Capstone Studio to complete the Honors Diploma.