

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY  
College of Architecture and Urban Studies  
School of Architecture + Design  
Bachelor of Science in Industrial Design  
For students entering under UG Catalog 2021-2022

I. Pathways to General Education	45 C required
II. Industrial Design Degree Core Courses	35 C required
III. Major Required Courses	38 C required
IV. Professional Elective Courses	6 C required
<b>TOTAL CREDIT HOURS</b>	<b>124 C required</b>

<b>Departmental Policies</b>
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**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 and/or corequisites; please consult the University Course Catalog or check with your advisor for more information. Courses are marked with an "\*\*".

<b>I. Pathways to General Education</b>	<b>45 C required</b>
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<b>#1 Discourse</b>	<b>9 C required</b>
ENGL 1105 First-Year Writing (1f)	_____ 3
ENGL 1106 First-Year Writing (1f)	_____ 3
Advanced/Applied Discourse Pathways Course (1a)	_____ 3
 <b>#2 Critical Thinking in the Humanities</b>	 <b>6 C required</b>
ART 2385 Survey of the History of Western Art	_____ 3
ART 2386 Survey of the History of Western Art	_____ 3
 <b>#3 Reasoning in the Social Sciences</b>	 <b>6 C required</b>
Pathways Course	_____ 3
Pathways Course	_____ 3
 <b>#4 Reasoning in the Natural Sciences</b>	 <b>6 C required</b>
Pathways Course	_____ 3
Pathways Course	_____ 3
 <b>#5 Quantitative and Computational Thinking</b>	 <b>9 C required</b>
MATH 1535 Geometry & Mathematics of Design (5f)	_____ 3
MATH 1536 Geometry & Mathematics of Design (5f)	_____ 3
Advanced/Applied Comp. Pathways Course (5a)	_____ 3
 <b>#6 Critique and Practice in Design and the Arts</b>	 <b>6 C required</b>
IDS 2114 History of Industrial Design (6a)	_____ 3
IDS 2124 History of Modern Industrial Designers (6d)	_____ 3
 <b>#7 Critical Analysis of Identity &amp; Equity in the US</b>	 <b>3 C required</b>
Pathways Course	_____ 3

<b>II. Industrial Design Degree Core Courses</b>	<b>35 C required</b>
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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

<b>III. Major Required Courses</b>	<b>38 C required</b>
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ARCH 1015 Foundation Design Laboratory	_____ 6
ARCH 1016 Foundation Design Laboratory	_____ 6
ARCH 3514 Design-Related Media	_____ 3
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	

<b>IV. Professional Elective Courses</b>	<b>6 C required</b>
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COURSE xxxx Professional Elective	_____ 3 (See Course Note 3)
COURSE xxxx Professional Elective	_____ 3 (See Course Note 3)

<b>TOTAL CREDIT HOURS</b>	<b>124 C required</b>
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<b>Foreign Language Requirements</b>
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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.

<b>Notes</b>
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- 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) Industrial Design Students enrolled in the Calhoun Honors Program may make the following substitutions to meet the requirements of their both their Degree and the Honors Program:
  - 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 #1 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 Topics in Engineering in Technology Innovation for Societal Impact may be substituted for MATH 1536 Geometry & Mathematics of Design as a #5 Quantitative and Computational Pathways Course.

UH 2754 Advanced Topics in Computing 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 of ARCH 3514 Design-Related Media.

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.

UH 4855 Calhoun Transdisciplinary Capstone Studio may be substituted for 3 credits that fill the requirements of a Free Elective.

Students entering the Calhoun Honors Program have an admissions requirement to complete ENGL 1105 Freshman English prior to enrollment so that it may be counted as transfer credit, those 3 credits in the degree program are devoted to UH 4856 Calhoun Transdisciplinary Capstone Studio.

\* See Course Map for Industrial Design Students enrolled in The Calhoun Honors Program for more details.