## Design (DES)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Attribute/Distribution</th>
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<tbody>
<tr>
<td>DES 040</td>
<td>Product Design I: Form, Process and Concept 4 Credits</td>
<td>4</td>
<td>(ART 003 or ART 011) and ART 004</td>
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<tr>
<td>DES 053</td>
<td>Introduction to Graphic Design 4 Credits</td>
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<tr>
<td>DES 066</td>
<td>Design History 4 Credits</td>
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<td>DES 070</td>
<td>Web Design I 4 Credits</td>
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<td>ART 003</td>
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<tr>
<td>DES 072</td>
<td>Digital Textile Design 4 Credits</td>
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<tr>
<td>DES 073</td>
<td>Special Topics in Design 1-4 Credits</td>
<td>4</td>
<td>(ART 003 or ART 011) and ART 004</td>
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<tr>
<td>DES 154</td>
<td>Scene Painting 4 Credits</td>
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<tr>
<td>DES 087</td>
<td>Performance Design 4 Credits</td>
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<td>DES 088</td>
<td>Digital Rendering 4 Credits</td>
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<td>DES 089</td>
<td>Introduction to Fashion Design 4 Credits</td>
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<td>DES 111</td>
<td>Sound Design 2 Credits</td>
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<td>DES 129</td>
<td>History of Fashion and Style 4 Credits</td>
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<td>DES 138</td>
<td>Introduction to Metalworking 3 Credits</td>
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<td>DES 140</td>
<td>Designing for Others 4 Credits</td>
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<td>DES 153</td>
<td>Graphic Design: Word and Image 4 Credits</td>
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<tr>
<td>DES 155</td>
<td>Model Building and Rendering 4 Credits</td>
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<td>DES 164</td>
<td>Ergonomics 4 Credits</td>
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**Prerequisites:**

- ART 003 or ART 011
- ART 004
- HU

**Course Notes:**

- DES 040: Introduction to the field of Industrial Design. Through research, analysis, drawing and prototyping, students will acquire an understanding of the various aesthetic, technological, and business issues. Prerequisites: ART 003 or ART 011 and ART 004. Attribute/Distribution: HU.
- DES 053: This course serves as an introduction to the graphic design process, with a primary focus on concept development and craft. Students examine how to identify and resolve visual problems and learn the basics of design and typography. Creative solutions will be encouraged for projects with practical applications. Topics include logo development and execution, professional typography, image basics and resolution, print production, studio skills and professional practices. Digital applications include Photoshop, Illustrator and InDesign. Prerequisites: ART 003. Attribute/Distribution: HU.
- DES 066: History of product design, graphic design and time-based media in artistic, cultural, technological, and business contexts. Attribute/Distribution: HU.
- DES 070: Introduction to the design and fabrication of web pages. Students will learn how to create pages using HTML and web fabrication software, with an emphasis on aesthetic and structure. Prerequisites: ART 003. Attribute/Distribution: HU.
- DES 072: Digital textile printing has brought about revolutionary changes in textile design. Digital Textile Design utilizes digital photography, scanning, drawing and image editing software to create botanical and geometric patterns for textiles. Attribute/Distribution: HU.
- DES 073: An introduction to methods and techniques of design studio. Designed to acquaint the student with general design elements, covering topics not covered in other specific studio course listings. Instructor permission required. Prerequisites: ART 003 or ART 011. Repeat Status: Course may be repeated. Attribute/Distribution: HU.
- DES 079: Run as an independent study: research ancient Chinese bridges, gardens, and pavilions. Digitize images and website design. Create photographic documentation of the Bridge Project. Produce documentary from historical materials concerning history of Chinese students at Lehigh. Bridge Project students could continue project work in Shanghai and Beijing. Repeat Status: Course may be repeated. Prerequisites: ART 003 or ART 053. Attribute/Distribution: HU.
- DES 087: Introduction to the process of creating integrated designs in theatre production. The study and practice of the principles of visual representation, historical and conceptual research and the study of theatrical styles. Attribute/Distribution: HU.
- DES 088: Explore the use of modern technology to develop and communicate design ideas with speed, clarity, and visual punch. Strategies geared toward increasing the young designer’s confidence in presenting artistic concepts. Learn the basics of Photoshop and SketchUp and then apply those skills in creative execution of scenic, costume, and lighting renderings. Attribute/Distribution: HU.
- DES 089: An introduction to conceptual garment design. Research, design, and develop collections of apparel and accessories. Basic elements of design, fashion theory, design processes, and rendering techniques. Attribute/Distribution: HU.
- DES 111: Introduction to the study of the techniques and equipment used for theatrical sound design. Elements include audio theory, script analysis, field recording and editing audio in digital audio workstations. Attribute/Distribution: HU.
- DES 129: Dress and culture in the Western Hemisphere from prehistory to today. The evolution of silhouette, garment forms and technology. The relationship of fashion to politics, art and behavior. Cultural and environmental influences on human adornment. Attribute/Distribution: HU.
- DES 138: An introduction to welding and metal forming through a series of practical design projects. Exploration of metal as a medium in both art and design. Practical application of design process, presentation, and craft. Acquired skills in stick arc welding, MIG welding, plasma torch and other metal bending and forming techniques. Attribute/Distribution: HU.
- DES 140: This course will expose students to client-based projects and issues of branding relevant to the product designer. Special emphasis will be given to functionality from a user-centered perspective. Projects will also include the use of 3D digital prototyping software and computer-aided fabrication techniques. Prerequisites: DES 040. Attribute/Distribution: HU.
- DES 148: Design methodology, fabrication techniques, and methods of design presentation. Attribute/Distribution: HU.
- DES 153: This course explores techniques of image making in relation to analyzing and creating meaning in graphic and typographic messages. Students solve visual communication problems with visual, conceptual and social impact. Assignments may include book covers, posters, music packaging, and promotional materials. Students will work in both traditional and digital media. May be repeated for credit once under different instructor. Repeat Status: Course may be repeated. Prerequisites: ART 003 or ART 053. Attribute/Distribution: HU.
- DES 154: Study and practice of basic and advanced methods of painting for the theatre. Includes basic elements and principles of design, color theory, the influence of light, atmosphere and aesthetics for the theatre. Attribute/Distribution: HU.
- DES 155: The art and practice of model building and rendering for the stage. Special techniques including scale furniture, soldering, acrylic painting and hand drafting. Attribute/Distribution: HU.
- DES 164: Introduction to physical, emotional, and psychological ways design interacts with people. Analyze real design problems and create solutions. Attribute/Distribution: HU.
- DES 170: Creation of dynamic content in web design. Various 2D animation software applications and simple scripting will be explored. Prerequisites: DES 070. Attribute/Distribution: HU.
DES 173 Special Topics in Design 1-4 Credits
Directed projects in design with selected readings as required. Student must initiate contact with sponsoring professor. Instructor permission required.
Repeat Status: Course may be repeated.
Attribute/Distribution: HU

DES 186 (THTR 186) Lighting Design 4 Credits
An introduction to the art and practice of lighting design for the theatre. Script analysis, research, and the interplay of lighting technology and design. Students will develop a sense of the dramatic while creating a portfolio of lighting designs.
Attribute/Distribution: HU

DES 188 (THTR 188) Scenic Design 4 Credits
An introduction to the art and practice of scenic design for the theatre. Script analysis, research, drafting and modeling techniques. Students will develop a sense of the dramatic while creating a portfolio of scenic designs.
Attribute/Distribution: HU

DES 240 Product Design III: Materials to Market 4 Credits
In this advanced level studio students will research fabrication techniques and materials, develop ideas into prototypes, outsource production and sell their designs in a competitive retail market. This course confronts the financial realities of being an independent designer while offering an opportunity to create innovative and desirable domestic products.
Prerequisites: DES 040
Attribute/Distribution: HU

DES 248 Furniture Design II 4 Credits
Advanced fabrication. Contemporary art issues and furniture history.
Repeat Status: Course may be repeated.
Prerequisites: DES 148
Attribute/Distribution: HU

DES 253 Graphic Design: Brand Experience 4 Credits
Students examine the basic principles of corporate identity and develop a clear understanding of the process of creating brands. Projects will offer a framework for looking at business strategy as it relates to the creative process of design. Emphasis will be placed on creating visual elements that support a brand and the steps a designer takes to create a consistent brand. In addition, students will develop self-promotion materials and identity systems. May be repeated for credit once under different instructor.
Repeat Status: Course may be repeated.
Prerequisites: DES 053
Attribute/Distribution: HU

DES 260 Exhibit Design 4 Credits
Team projects in development of exhibits for museums, conferences, or educational centers. Project work is supplemented by lectures and demonstrations. Teams will produce real and virtual exhibit prototypes and will design and maintain an exhibit website.
Attribute/Distribution: HU

DES 266 History of Contemporary Design 4 Credits
History of modern design from mid 19th century to the present. Studies and discussion of contemporary issues and technology in Design Arts. Topics will include green design, digital technology, current legal and ethical principles, and other issues.
Attribute/Distribution: HU

DES 268 Advanced Design Projects 1-4 Credits
Advanced projects or studies applying Design Arts practices or theories. Consent of instructor required.
Repeat Status: Course may be repeated.
Attribute/Distribution: HU

DES 300 Apprentice Teaching 1-4 Credits
DES 311 Design Portfolio 1-4 Credits
The concept, layout, and preparation of a portfolio for graduate school application or employment search, including graphic techniques and reproduction method. Student must contact sponsoring professor.
Repeat Status: Course may be repeated.
Prerequisites: DES 240 or DES 253

DES 348 Furniture Design III 4 Credits
Advanced fabrication, contemporary art issues and furniture history.
Prerequisites: DES 248
Attribute/Distribution: HU

DES 370 Special Topics in Design 1-4 Credits
Current topics in design, with selected readings, discussions, and studio work as required. Must have completed two 100-level Design courses. Consent of department required.
Repeat Status: Course may be repeated.
Attribute/Distribution: HU

DES 375 Design Internship 1-4 Credits
Practical experience following apprenticeship model. Requires approval of instructor and host prior to beginning of the term, with a memorandum of understanding outlining student work responsibilities and educational objectives for the experience.
Repeat Status: Course may be repeated.
Attribute/Distribution: ND

DES 385 Fusion: Design Practice 4 Credits
Fusion offers students the opportunity to apply graphic design skills to a wide variety of real world projects. Run as a design agency, students work in teams, interact with clients, explore the creative process and gain valuable experience. Design assignments include branding & Identity, poster & promotion design, exhibition design, and a multitude of other opportunities, including interdisciplinary and self-initiated design projects. The focus is on strategic design thinking, project management and collaborative teamwork.
Repeat Status: Course may be repeated.
Prerequisites: DES 053
Attribute/Distribution: HU

DES 387 (THTR 387) Scenography II 4 Credits
Advanced projects in theatrical design. Portfolio readiness and resume preparation.
Prerequisites: (THTR 087 or DES 087) and (THTR 186 or DES 186 or THTR 189 or DES 189)
Attribute/Distribution: HU

DES 389 Honors Project 1-8 Credits
Repeat Status: Course may be repeated.