

# DESIGN STUDIES (DS)

## DS 101 – INTRODUCTION TO TEXTILE DESIGN

3 credits.

This survey class will be an introduction to the technical and conceptual ways of working in Textile Design. Students will participate in three five week modules: one module introducing print and dye concerns, one module introducing off-loom processes, and one module introducing structural enrichment techniques and concepts. Each module will include a series of introductory exercises leading to a final larger project. The work in each module will be supported by short readings and slide lectures highlighting historical and contemporary work. Course fee: yes.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

## DS 120 – DESIGN: FUNDAMENTALS I

3 credits.

Elements and principles of design relevant to design of the visual environment.

**Requisites:** None

**Course Designation:** Level - Elementary

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

## DS 123 – WHAT IS DESIGN?

3 credits.

Design is a key component of our daily lives and can profoundly affect all people. But how? And to what end? What does design mean and what can it do for us? Interrogate those questions by looking broadly at the place of design in everyday life, and how design intersects with society, economics, politics, the environment, and culture. Study the form, function, and philosophy of design, from what we wear on our bodies to how we move through the world. Ground discussions in close observation and analysis of previous design solutions, leading to innovative approaches to the roles, and responsibilities, of design for the future.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Interrogate design in the context of everyday life, including social, cultural, political, economic, technological, and environmental circumstances that both influence and are influenced by the design sector.

Audience: Undergraduate

2. Use methods of observation, analysis, and application to assess the role of design in everyday life.

Audience: Undergraduate

3. Analyze primary and secondary research sources across a range of media (eg, written texts, visual and material culture, oral testimony, embodied experience, etc) to promote awareness and understanding of design.

Audience: Undergraduate

4. Demonstrate knowledge of design practice, purpose, uses, outcomes, and responsibilities, across scales of human experience.

Audience: Undergraduate

5. Communicate clearly, effectively, and critically using terminology appropriate to the field of design, across a variety of modes of expression (eg, academic writing, peer discussion, public commentary, visual storytelling, etc).

Audience: Undergraduate

## DS 130 – INTRODUCTION TO INTERIOR ARCHITECTURE

3 credits.

Introduction to interior architecture, as a discipline and as a profession. Examine the ways in which interior environments impact our lives, and the challenges and responsibilities faced by those who work in this field. Topics include: the history of interior design as a profession; the increased professionalization of interior design; the relation of interior design to other design disciplines (such as architecture and furniture design); the social, economic, and environmental issues that impact design; the role of emerging technologies (including digital media); design research and documentation; the elements and principles of design; the identification and observation of quality work in both commercial and residential settings; contemporary trends in taste and aesthetics; and the application of design research methods to a real-world project.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Fall 2020

**DS 140 – VISUAL THINKING - FORM AND SPACE**

3 credits.

Manual and digital techniques for idea exploration, concept development, and design presentation using a variety of media. Projects in hand drawing techniques and professional design software. Gain heightened attention to detail; understand the relationship of two-dimensional drawings and three-dimensional objects; explore multiple design solutions visually; convey technical information, and professionally communicate design concepts. Introduce visual communication, visual thinking, visual inspiration and visual representation

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Practice studio habits that support a consistent, rigorous, reflective work ethic.

Audience: Undergraduate

2. Practice fundamental skills for self-discovery and exploration in design.

Audience: Undergraduate

3. Investigate current software and techniques for contemporary design.

Audience: Undergraduate

4. Describe the elements that contribute to the visualization of design.

Audience: Undergraduate

5. Apply the elements of art and the principles of design in drawing and digital exercises to express ideas, concepts, and moods.

Audience: Undergraduate

6. Practice a variety of methods to structure, contextualize, and communicate the visual representation of ideas.

Audience: Undergraduate

**DS 150 – VISUAL THINKING - PIXELS AND PENCILS**

3 credits.

Explores visual media as a means of describing what exists, as a method for generating ideas for what could be, and for professionally communicating a design concept. Use hand drawing techniques and professional design software. Supports the proficiency of technical skills while teaching essential methods for creative practice. Learn to move fluidly across platforms to visually explore possibilities, refine ideas, and professionally communicate design plans.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Develop heightened attention to detail, light and form through observational drawing while developing coordination between hand and eye.

Audience: Undergraduate

2. Use hand drawing and digital tools to visually explore multiple design solutions.

Audience: Undergraduate

3. Create professional visuals to communicate a complex design idea, mood and concept.

Audience: Undergraduate

4. Increase fluency of commonly used design software

Audience: Undergraduate

5. Critically analyze individual work and the work of classmates using appropriate terminology related to the design field.

Audience: Undergraduate

6. Develop studio habits that support a consistent, rigorous, reflective work ethic.

Audience: Undergraduate

**DS 151 – CRAFT & CONSTRUCTION FOR GARMENTS**

3 credits.

Introduces the principles of sewn construction, fabric cutting/layout, and finishing techniques for creating garment prototypes as they relate to the design process. Develop foundational garment construction skills through a combination of demonstrations, hands-on studio work, and critiques. Emphasis is placed on mastering fundamental sewing techniques, and structural analysis to create well-constructed garments that integrate technical precision.

**Requisites:** None**Repeatable for Credit:** No

**Learning Outcomes:** 1. Identify and differentiate key fiber properties and fabric structures, analyzing their impact on garment construction and design.

Audience: Undergraduate

2. Operate professional tools and industrial machinery with proficiency, demonstrating industry-standard sewing techniques.

Audience: Undergraduate

3. Construct samples using fundamental sewn construction methods, integrating accuracy and craftsmanship, resulting in a sample book.

Audience: Undergraduate

4. Sew a set of sample garments (shirt, skirt, and shorts) that highlight key sewing techniques, demonstrating proficiency in fundamental construction methods.

Audience: Undergraduate

5. Analyze garment structure and fabrics to determine appropriate construction methods and proper use of seam types, facings, interfacing, appropriate closures, and finishings.

Audience: Undergraduate

**DS 152 – FASHION DESIGN I**

3 credits.

Introduces core principles of fashion design with a focus on creativity, sustainability, critical thinking, and concept development. Emphasizes silhouette, proportion, scale, and materiality as foundational elements in developing design aesthetics. Includes research and sketching as part of the design process, from initial inspiration to presentation of garment concepts. Explores historical and contemporary fashion to inform original work. Develops skills in trend forecasting, market analysis, and flat sketching.

**Requisites:** DS 151**Repeatable for Credit:** No**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Identify fundamental fashion design principles, including silhouette, proportion, scale, and materiality, to establish a strong foundation in design aesthetics.

Audience: Undergraduate

2. Describe and analyze historical and contemporary fashion references to inform their own design development.

Audience: Undergraduate

3. Conduct fashion trend research and market analysis and develop original fashion concepts through this research, experimentation, and iterative design processes.

Audience: Undergraduate

4. Create mood and concept boards to communicate design ideas effectively applying visual storytelling techniques.

Audience: Undergraduate

5. Critique personal work and that of peers using appropriate design vocabulary and constructive feedback.

Audience: Undergraduate

6. Present design concepts in a professional format and communicate design ideas through fashion flat sketches.

Audience: Undergraduate

### **DS 153 – SEWN CONSTRUCTION I**

3 credits.

Introduces the principles of sewn construction and addresses the physical and aesthetic properties of fiber and fabrics in the context of apparel design. The studios address skills necessary to plan and construct basic garments. Lectures, hands-on studios, and critiques explore the fundamentals of apparel structure and emphasize the interrelationship of fabric, design and apparel construction as well as the creative, expressive potential of materials and making.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Differentiate and demonstrate an understanding of key characteristics and interaction of fiber content and fabric structures as applied in apparel construction.

Audience: Undergraduate

2. Demonstrate competence in using professional tools and machinery for garment construction.

Audience: Undergraduate

3. Develop a basic skill set for sewn construction

Audience: Undergraduate

4. Demonstrate the ability to follow, and alter a commercial pattern

Audience: Undergraduate

5. Analyze garment structure and fabrics to determine proper use of interfacings, appropriate closures and edge finishes.

Audience: Undergraduate

6. Apply the principles of construction, fiber content and structure to produce a well-constructed, expressive garment.

Audience: Undergraduate

### **DS 154 – SEWN CONSTRUCTION II**

3 credits.

Emphasizes specialty fabrics, finishes and complex construction such as matching plaids and working with pile fabrics. Introduces pattern manipulation through basic flat patternmaking principles. Design and fabricate an original collection of garments for a target customer and will develop and construct two of the garments.

**Requisites:** DS 153

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Understand and develop skill set to apply appropriate construction methods for specialty fabrics.

Audience: Undergraduate

2. Understand advanced construction concepts and experiment with advanced construction techniques.

Audience: Undergraduate

3. Identify and analyze fabric qualities to determine suitability for a specified silhouette, target market, and consumer end-use.

Audience: Undergraduate

4. Recognize and execute principles of flat pattern manipulation to create original designs

Audience: Undergraduate

5. Design a group of garments appropriate for a specific customer and end-use.

Audience: Undergraduate

### **DS 210 – FASHION ILLUSTRATION**

3 credits.

Introduction to visual communication of apparel design concepts using selected media. Focus is on drawing the fashion figure, using special techniques, with emphasis on the relationship of figure, garment, fabric, texture, and pattern.

**Requisites:** DS 120 and 154

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

**DS 215 – PATTERNMAKING FOR ACCESSORIES**

3 credits.

The principles and theories of flat pattern, drafting and draping methods for 3D accessories are explored. The principles of patternmaking are applied to headwear, handbags and footwear. Complete projects that require designing, patterning and constructing hats, bags and footwear.

**Requisites:** DS 153**Repeatable for Credit:** No**Last Taught:** Fall 2025**Learning Outcomes:** 1. Understand and apply draping and flat pattern methods used to develop patterns for a variety of accessories

Audience: Undergraduate

2. Understand and apply shaping devices and how they are used to transform 2-D materials into 3-D forms

Audience: Undergraduate

3. Understand vocabulary specific to headwear, handbags and footwear including terms, categories, styles and parts. Analyze structure and construction methods of existing accessories construction

Audience: Undergraduate

4. Learn skill set needed to apply patternmaking and construction to original design

Audience: Undergraduate

5. Design, test pattern and construct original design

Audience: Undergraduate

**DS 220 – DESIGN: FUNDAMENTALS II**

3 credits.

Elements and principles of three-dimensional design relevant to design and analysis of the spatial environment.

**Requisites:** DS 120**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 221 – PERSON AND ENVIRONMENT INTERACTIONS**

3 credits.

Effects of building and outdoor spaces on people over the life course.

**Requisites:** None**Course Designation:** Level - Intermediate

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Fall 2025**DS 222 – INTERIOR DESIGN I**

4 credits.

Understanding and applying the process of solving design problems of interiors. Space planning; selection and use of furnishings and materials; preparation of presentations.

**Requisites:** DS 220 and declared in Interior Architecture BS**Repeatable for Credit:** No**Last Taught:** Fall 2025**DS 223 – INTERIOR ARCHITECTURAL DESIGN**

3 credits.

Building components, construction, interpretation of working drawing, and the process of project development.

**Requisites:** DS 222**Repeatable for Credit:** No**Last Taught:** Fall 2025**DS 224 – INTERIOR MATERIALS AND FINISHES**

3 credits.

The materials used in interior environments are immense, diverse and constantly changing. Focus on the composition of materials, their uses, and how they affect human health and well being.

**Requisites:** Declared in Interior Architecture BS**Repeatable for Credit:** No**Last Taught:** Fall 2025**DS 225 – APPAREL DESIGN I**

3 credits.

Basic principles and elements of design as they apply to apparel. Emphasizing both process and product, students analyze fashion trends and practical problems while developing and executing original designs.

**Requisites:** DS 210 and 253**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS/ART 226 – TEXTILE DESIGN: OFF-LOOM CONSTRUCTION**

3 credits.

Studio design problems in two and three dimensional off-loom constructions; off-loom weaving, looping, and knotting; historical reference and contemporary application.

**Requisites:** DS 120 and 153**Course Designation:** Level - Elementary

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Spring 2021

**DS 227 – TEXTILE DESIGN: PRINTING AND DYEING I**

3 credits.

Surface design developed in print and resist techniques using historic and contemporary methods.

**Requisites:** DS 101

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Be familiar with the history and technique of the following textile processes: indigo dyeing, immersion dyeing with natural dyes, dip dyeing, mechanical resists, block printing, silk-screen printing  
Audience: Undergraduate

2. Demonstrate design awareness: motifs, spacing, scale, and colour in relation to assignments  
Audience: Undergraduate

3. Discover what possibilities there are for a career in textiles  
Audience: Undergraduate

4. See the potential for cloth as a medium for artistic expression and the importance of experimentation in textile media  
Audience: Undergraduate

5. Implement basic techniques in dyeing and printing  
Audience: Undergraduate

6. Demonstrate an understanding of working through not only technical problems as learned in the execution of assignments, but begin to show an understanding of developing a conceptual idea.  
Audience: Undergraduate

7. Display curiosity about unexplored areas in the textile field  
Audience: Undergraduate

**DS 228 – TEXTILE EMBELLISHMENT I**

3 credits.

Historic and contemporary design techniques for embellishing textiles; including embroidery, beadwork and appliqué.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Acquire a deepened understanding of the importance of reflection in creative work (learning to pay attention to what you love; what you want to find out; what captures your imagination; and what questions the work suggests).  
Audience: Undergraduate

2. Recognize the value of critical thinking and research as it applies to creative work.  
Audience: Undergraduate

3. Produce a small collection of embellishment samples showing thoughtful experiential engagement with embroidery, beadwork, and fabric collage.  
Audience: Undergraduate

4. Create an original textile work informed by and honoring a textile tradition originating on the African continent.  
Audience: Undergraduate

5. Originate one ambitious, thoughtfully considered work informed by your individual, emerging creative practice, and making use of the embellishment techniques introduced in the class.  
Audience: Undergraduate

6. Demonstrate public presentation skills appropriate to the discussion of creative research.  
Audience: Undergraduate

**DS/ART 229 – TEXTILE DESIGN: WEAVING I**

3 credits.

The relationship of hand weaving to textural surfaces and sculptural forms are examined through the study of problems including structure, pattern, composition, and additional conceptual technical possibilities. Content is explored in the development of individual direction and in relationship to the discussion of historical and contemporary textiles and other works of art. Pursue an advanced investigation of concept and technique of hand-woven cloth.

**Requisites:** None**Repeatable for Credit:** No**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Demonstrate understanding of theories, approaches, concepts, and current and historical textile/weaving practices in projects and presentations.

Audience: Undergraduate

2. Utilize the techniques, skills and modern tools/software necessary to create work in the field.

Audience: Undergraduate

3. Examine articles and conduct and present research to inform personal style and concept goals.

Audience: Undergraduate

4. Synthesize knowledge and use insight and creativity to better understand and improve their own design/art

Audience: Undergraduate

5. Communicate effectively through oral presentations, discussion and critiques.

Audience: Undergraduate

**DS/GEN BUS 240 – HUMAN-CENTERED DESIGN AND BUSINESS**

2 credits.

Design thinking is an iterative problem-solving process geared toward producing innovative solutions for complex and persistent problems in various fields and organizations. Its process, culture, and value system from both design and business point of views will be covered: Empathetic understanding of the end users, problem definition rooted in systems thinking, ideation with a strong emphasis on creativity, visualization and prototyping, testing rooted in a set of research methods, and finally, the importance of iteration in bringing about innovative solutions. The path from project to market will also be explored, with an understanding of how one might balance desirability, feasibility and viability.

**Requisites:** None**Repeatable for Credit:** No**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Demonstrate the ability to understand and gain empathy into human (customer/consumer/user) experience of product, services and systems through systematic inquiries.

Audience: Undergraduate

2. Exhibit the ability to be creative, collaborative, and divergent thinkers who can generate and visually communicate multiple ideas.

Audience: Undergraduate

3. Demonstrate ability to iterate proposed solutions toward innovation.

Audience: Undergraduate

4. Explore questions around cultural and intellectual exchange between business and design such as “What can business learn from design, and vice versa?”, or “How might the incorporation of design thinking help human-centered business to grow and flourish?”

Audience: Undergraduate

5. Illuminate and expand on existing touch points between design thinking and “business thinking”, including, but not limited to, marketing/new product design and development, entrepreneurship and venture creation, operations and new process design

Audience: Undergraduate

**DS 241 – VISUAL COMMUNICATION I**

3 credits.

Focuses on the basic concepts, methods and materials used for communicating ideas during the design process. Emphasizes creating visually driven experiences, with the goal of providing the tools to integrate traditional manual approaches with up-to-the-minute digital approaches, all within the context of creative design thinking.

**Requisites:** Declared in Interior Architecture BS**Repeatable for Credit:** No**Last Taught:** Fall 2025

**DS 242 – VISUAL COMMUNICATION II**

3 credits.

Advanced topics focusing on the concepts, methods and materials used for communicating ideas during the design process. With an emphasis on creating visually driven experiences, integrates traditional manual approaches with up-to-the-minute digital approaches, all within the context of creative design thinking.

**Requisites:** DS 241**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 251 – THE SCIENCE OF TEXTILES - PERFORMANCE & PROPERTIES**

3 credits.

An introduction to textiles, fiber properties, and fabric behavior. Explore textile construction, performance, fabric aesthetics, durability, comfort, care and sustainability as related to design practices, serviceability of fibers, yarns, weaves and knits as well as dyed and printed fabrics. Case studies of sustainable designers and sustainability frameworks are referenced for responsible material choices. Analyze traditional and emerging fiber technologies to develop a deeper understanding of textiles and their impact on design and the environment.

**Requisites:** None**Course Designation:** Breadth - Physical Sci. Counts toward the Natural Sci req

Level - Elementary

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Spring 2026**Learning Outcomes:** 1. Classify fiber families based on their general and unique characteristics and identify commonly used textile fabrics by name.

Audience: Undergraduate

2. Describe the properties of fibers, yarns, fabric structures and finishing techniques, explaining their role in fabric appearance, performance, and end-use applications in fashion and design.

Audience: Undergraduate

3. Analyze how fiber composition, yarn structure, fabric construction, and finishing processes influence fabric performance and aesthetics.

Audience: Undergraduate

4. Apply knowledge of textile characteristics, legislation, and labeling to evaluate textile products for selection, care, and sustainability.

Audience: Undergraduate

5. Critically assess the ethical and environmental impacts of textile production and consumption using sustainability frameworks such as the UN Sustainable Development Goals.

Audience: Undergraduate

6. Explore innovative and emerging fiber technologies, including biomaterials, recycled textiles, and traditional ecological knowledge (TEK), to inform sustainable design decisions.

Audience: Undergraduate

**DS 252 – DESIGN LEADERSHIP SYMPOSIUM**

1 credit.

Provides detailed examination of design careers in the fields of textiles, fashion, and apparel design as well as interior design, industrial design, and architecture. High level industry experts from leading companies in the design industry participate as guest speakers and panel members.

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2026**DS 253 – PATTERNMAKING FOR FASHION DESIGN I**

3 credits.

Introduces flat patternmaking as a fundamental technique in apparel design. Explore foundational concepts and principles through manipulation of pattern blocks and the typology of garment styles and silhouettes to execute original designs. Develop pattern drafts for simple garments by applying fundamental patternmaking techniques (dart manipulation, adding fullness, contouring). Emphasis is placed on understanding garment construction in translating design concepts into accurate pattern drafts.

**Requisites:** DS 152 or DS 154**Repeatable for Credit:** No**Last Taught:** Fall 2025**Learning Outcomes:** 1. Identify and demonstrate basic knowledge of patternmaking through use of basic tools, appropriate terms and resources.

Audience: Undergraduate

2. Identify and apply fundamental flat patternmaking principles of dart manipulation, adding fullness, and contouring.

Audience: Undergraduate

3. Demonstrate basic principles and techniques of flat patternmaking through the manipulation of basic skirt and bodice garment blocks.

Audience: Undergraduate

4. Communicate pattern modifications and garment designs through accurate technical drawings, appropriate terminology and documentation.

Audience: Undergraduate

5. Translate design sketches into flat pattern drafts that align with garment construction methods.

Audience: Undergraduate

6. Critique one's own work and that of peers using appropriate design vocabulary and constructive feedback.

Audience: Undergraduate

**DS/ANTHRO/ART HIST/HISTORY/LAND ARC 264 – DIMENSIONS OF MATERIAL CULTURE**

4 credits.

This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; discussion of foundational readings in the field; visits to collections and sites on campus and around Madison; discussion of readings assigned by visiting presenters or the professors; and exams and short papers that engage material culture topics.

**Requisites:** None**Course Designation:** Breadth - Humanities

Level - Elementary

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 270 – DESIGN AND FASHION EVENT PRACTICUM**

2 credits.

Addresses the multi-disciplinary production of a student-centered, student-driven design and fashion event. Topics include, creative direction, strategic marketing, stage and performance, visual communication, event organization, audience engagement and event production. Gain knowledge, skills and hands-on experience implementing a large-scale art event. Emphasizes teamwork and fosters multi-disciplinary appreciation.

**Requisites:** None**Repeatable for Credit:** No**Last Taught:** Spring 2020**DS 299 – INDEPENDENT STUDY**

1-3 credits.

Directed study projects as arranged with a faculty member.

**Requisites:** Consent of instructor**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2023**DS 319 – CLOTH TO CLOTHING**

3 credits.

Explore specific dye and manipulation techniques that directly relate to integrated textile and garment design. Working with color, composition and fabric movement discuss simple garment shapes and how they can be used in conjunction with expressive textiles.

**Requisites:** DS 101 and 154**Repeatable for Credit:** No**Last Taught:** Fall 2025**DS 321 – PROBLEM-DEFINITION: DESIGN PROGRAMMING**

3 credits.

Programming is the problem definition phase of design process. An architectural or design program is used to guide the design process and to evaluate design solutions. A variety of design programming approaches, tools, and techniques are presented. Opportunity to develop skills in preparing a design program document that includes multiple user-needs and principles of environment-behavior interaction.

**Requisites:** DS 221 and sophomore standing**Course Designation:** Level - Intermediate

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Demonstrate knowledge about various programming approaches and tradeoffs of selecting a specific approach.  
Audience: Undergraduate

2. Illustrate understanding of components within programming documents for designs of different building types.  
Audience: Undergraduate

3. Integrate programming tools such as observation, behavior mapping, interviews, and questionnaires in a design program.  
Audience: Undergraduate

4. Develop a programming approach and apply it to a project to produce a design program that meets the clients' and users' needs.  
Audience: Undergraduate

5. Identify strategies to gather design requirements and integrate them into translatable programming statements.  
Audience: Undergraduate

6. Collect, analyze, and organize space requirement information using tools such as adjacency diagrams, criteria matrices, and line-by-line programs.  
Audience: Undergraduate

7. Develop analytic and problem-solving skills through use of programming tools and methods.  
Audience: Undergraduate

8. Formulate and communicate programmatic requirements to a client and designers.  
Audience: Undergraduate

**DS 322 – INTERIOR DESIGN II**

4 credits.

Design of residential interiors including space planning, lighting design, selections of materials and furniture, professional communication of design solutions. Emphasis on the aesthetic and functional needs of the family and residents with special needs.

**Requisites:** DS 222**Repeatable for Credit:** No**Last Taught:** Spring 2026

**DS 327 – TEXTILE DESIGN: MANUAL/COMPUTER GENERATED IMAGERY AND PATTERN**

3 credits.

Pattern design for textiles, wallpaper and other applications (motif, layout, repeats, colourways, coordinates), using various manual and digital creation methods. Development of imagery, design concepts, collaboration and presentation.

**Requisites:** None**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2025**Learning Outcomes:** 1. Demonstrate the use of Photoshop and Illustrator for textile applications

Audience: Both Grad &amp; Undergrad

2. Display proficiency in the use of Pointcarre to develop designs, colourways and repeating patterns

Audience: Both Grad &amp; Undergrad

3. Develop ideas into conceptually solid designs/works

Audience: Both Grad &amp; Undergrad

4. Research important issues surrounding fair trade and artisan production

Audience: Both Grad &amp; Undergrad

5. Explore the history and techniques of the artisans' crafts through research and conversation with the artisans

Audience: Both Grad &amp; Undergrad

6. Operate computers, software programs, scanners and printers

Audience: Both Grad &amp; Undergrad

7. Exhibit the ability to work in a variety of mediums that incorporate digital imaging

Audience: Both Grad &amp; Undergrad

8. Communicate with confidence

Audience: Both Grad &amp; Undergrad

9. Develop an appreciation for a collaborative interdisciplinary environment

Audience: Both Grad &amp; Undergrad

10. Display an advanced level of design awareness: motifs, spacing, scale, and colour in relation to assignments

Audience: Graduate

11. Create innovative applications for co-design

Audience: Graduate

12. Lead critiques and discussions

Audience: Graduate

13. Model a willingness to take on a leadership role in a collaborative interdisciplinary environment

Audience: Graduate

14. Express curiosity about unexplored areas or possibilities within the fields of textile design, fair trade and artisan production

Audience: Graduate

**DS 333 – DIGITAL FABRICATION FOR DESIGNERS**

3 credits.

Modern tools and techniques including professional design software and digital fabrication equipment are used in combination with traditional model making for tangible prototyping using a variety of media. Leverage digital design software, laser cutting, and 3D printing alongside traditional methods and manual tools to develop design concepts into physical forms.

**Requisites:** DS 140 or LAND ARC 210**Repeatable for Credit:** No**Last Taught:** Spring 2026**Learning Outcomes:** 1. Practice studio habits that support a consistent, rigorous, reflective work ethic.

Audience: Undergraduate

2. Demonstrate proficiency in industry standard software to design original digital files for fabrication.

Audience: Undergraduate

3. Develop practical skills in operating laser cutters and 3D printers, understanding both the technical aspects and material limitations of these tools

Audience: Undergraduate

4. Gain hands-on experience in assembly techniques, using basic hand tools to assemble and complete designs

Audience: Undergraduate

5. Troubleshoot and iterate multiple design solutions, fostering problem-solving and critical thinking abilities essential for successful digital fabrication.

Audience: Undergraduate

6. Explore the integration of digital and physical methods to create functional and aesthetically compelling projects

Audience: Undergraduate

**DS 341 – DESIGN THINKING FOR TRANSFORMATION**

3 credits.

Learn design thinking techniques to enhance creative analysis and problem solving. Directly apply those techniques to a variety of human centered design challenges. Innovate, prototype, and test designs that address real-world problems with real-world constraints and the limitations of technology. Projects range from ways to improve everyday situations to community issues.

**Requisites:** None**Repeatable for Credit:** No**Last Taught:** Spring 2026

**DS 353 – PATTERNMAKING FOR FASHION DESIGN II**

3 credits.

Expanding upon foundational patternmaking techniques through introduction of complex pattern manipulations, tailored garment construction, zero waste patternmaking, sustainable designs, and multi-piece garment development. Emphasis is placed on precision, fit modifications, structured garment design, and problem-solving in pattern development. Development of skills to create original, industry-standard patterns for diverse silhouettes and styles.

**Requisites:** DS 253**Repeatable for Credit:** No**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Apply advanced pattern manipulation techniques, zero-waste, and sustainable design approaches to create innovative, functional, and low-impact garments.

Audience: Undergraduate

2. Analyze and refine fit adjustments for structured and fluid garment styles.

Audience: Undergraduate

3. Develop multi-piece garment patterns, ensuring proper seam alignment and functional design elements.

Audience: Undergraduate

4. Evaluate the impact of fabric properties on advanced pattern designs, making informed material choices.

Audience: Undergraduate

5. Solve construction challenges through strategic pattern adjustments and modifications.

Audience: Undergraduate

6. Produce industry-standard technical documentation for original pattern designs, including spec sheets and pattern notations.

Audience: Undergraduate

**DS 355 – HISTORY OF FASHION, 1400-PRESENT**

3 credits.

Changing form and meaning of costume in the West from Renaissance to present. Dress considered in relation to social/cultural milieu and as an art form. Includes treatment of the body; ethnic/class variations; couture; "antifashion".

**Requisites:** Junior standing**Course Designation:** Level - Advanced

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Spring 2025**DS 361 – DESIGN-RELATED INTERNATIONAL EXPERIENCE**

1-6 credits.

In-depth study of art/design concepts and/or practice in a specific culture while studying abroad. Looks at cultural issues through a particularized design-related lens.

**Requisites:** DS 120 or ART 104**Repeatable for Credit:** Yes, unlimited number of completions**DS 401 – FIT ACCESSORIES DESIGN**

1-6 credits.

Provides equivalency for accessory design courses completed at the Fashion Institute of Technology (FIT) by Textiles Fashion Design majors as part of the FIT visiting student program. This is not a course that can be enrolled in at UW-Madison

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**DS 402 – FIT ADVERTISING AND MARKETING COMMUNICATIONS**

1-6 credits.

Provides equivalency for advertising and marketing communications courses completed at the Fashion Institute of Technology (FIT) by Textiles Fashion Design majors as part of the FIT visiting student program. This is not a course that can be enrolled in at UW-Madison

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**DS 403 – FIT COMMUNICATION DESIGN FOUNDATION**

1-6 credits.

Provides equivalency for communication design foundation courses completed at the Fashion Institute of Technology (FIT) by Textiles Fashion Design majors as part of the FIT visiting student program. This is not a course that can be enrolled in at UW-Madison

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**DS 404 – FIT FASHION BUSINESS MANAGEMENT**

1-6 credits.

Provides equivalency for fashion business management courses completed at the Fashion Institute of Technology (FIT) by Textiles Fashion Design majors as part of the FIT visiting student program. This is not a course that can be enrolled in at UW-Madison

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**DS 405 – FIT FASHION DESIGN**

1-6 credits.

Provides equivalency for fashion design courses completed at the Fashion Institute of Technology (FIT) by Textiles Fashion Design majors as part of the FIT visiting student program. This is not a course that can be enrolled in at UW-Madison

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**DS 406 – FIT TEXTILE DESIGN AND SCIENCE**

1-6 credits.

Provides equivalency for textile design and science courses completed at the Fashion Institute of Technology (FIT) by Textiles Fashion Design majors as part of the FIT visiting student program. This is not a course that can be enrolled in at UW-Madison

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions

**DS 407 – FIT RELATED AREA**

1-6 credits.

Provides equivalency for related area courses completed at the Fashion Institute of Technology (FIT) by Textiles Fashion Design majors as part of the FIT visiting student program. This is not a course that can be enrolled in at UW-Madison

**Requisites:** None**Repeatable for Credit:** Yes, unlimited number of completions**DS 421 – HISTORY OF ARCHITECTURE AND INTERIORS I: ANTIQUITY THROUGH 18TH CENTURY**

3 credits.

Surveys the history of architecture, interiors, furnishings and decorative arts from antiquity to the mid-19th century. Introduction to major design cultures and movements, emphasizing the role of social, economic, political, technological, and aesthetic factors in the shaping design.

**Requisites:** DS 120 or (ART HIST 201 and 202)**Course Designation:** Level - Advanced

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Fall 2025**DS 422 – HISTORY OF ARCHITECTURE & INTERIORS II: 19TH AND 20TH CENTURIES**

3 credits.

Surveys the history of architecture, interiors, furnishings and decorative arts from the mid-19th to the mid-20th century. Introduction to major design cultures and movements, emphasizing the role of social, economic, political, technological, and aesthetic factors in the shaping design.

**Requisites:** DS 421 or (ART HIST 201 and 202)**Course Designation:** Level - Advanced

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 427 – TEXTILE DESIGN: PRINTING AND DYEING II**

3 credits.

Focuses on silkscreen printing. Discharge, burnout, and chemical resist processes, specific to screen printing. Develop conceptual ideas and explore alternative ways of producing images.

**Requisites:** DS 227 and 327, or graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 428 – TEXTILE EMBELLISHMENT II**

3 credits.

Opportunity to continue creative research introduced in Textile Embellishment I, with a special emphasis on student driven design. Advance skill and vision using traditional and experimental ways of altering and enriching the surface of pliable materials using techniques such as stitching, embroidery, beading, and fabric collage. Identify and pursue individual conceptual concerns. Readings, formal and informal presentations, group and individual critiques will support the work. Presentation of research will include formal power point talks and physical presentation of the completed textile works.

**Requisites:** DS 228**Repeatable for Credit:** No**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Acquire a deepened understanding of the importance of reflection in creative work (learning to pay attention to what you love; what you want to find out; what captures your imagination; and what questions the work suggests).

Audience: Undergraduate

2. Recognize the value of critical thinking and research as it applies to creative work.

Audience: Undergraduate

3. Create original textile work informed by personal vision, and supported with traditional and applied research.

Audience: Undergraduate

4. Originate ambitious, thoughtfully considered work informed by their individual, emerging creative practice, and making use of the embellishment techniques appropriate to their research.

Audience: Undergraduate

5. Demonstrate public presentation skills appropriate to the discussion of creative research through power point presentations and the opportunity to facilitate discussion.

Audience: Undergraduate

**DS 429 – TEXTILE DESIGN: WEAVING II**

3 credits.

Analysis of complex or compound hand weave techniques. Individual development of solutions to problems of structural textile design.

**Requisites:** DS/ART 229**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 430 – HISTORY OF TEXTILES**

3 credits.

Designs and meanings and interrelationships of textiles in selected cultures and time periods.

**Requisites:** None**Course Designation:** Level - Advanced

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Fall 2025

**DS 451 – COLOR THEORY AND TECHNOLOGY**

3 credits.

Specialized topics of current interest.

**Requisites:** Satisfied Quantitative Reasoning (QR) A requirement or graduate/professional standing**Course Designation:** Gen Ed - Quantitative Reasoning Part B

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 453 – DIGITAL PATTERNMAKING I**

3 credits.

Explore the digital dimension of patternmaking through industry-standard computer-aided design (CAD) software. Examines the advantages of computer-assisted patternmaking, and considers the potential impact of emerging and future technologies. Emphasis is placed on digitizing patterns, manipulating basic blocks, creating garment models, and developing original garment designs.

**Requisites:** DS 353**Repeatable for Credit:** No**Learning Outcomes:** 1. Demonstrate fundamental skills in computer-aided design (CAD) functions using industry standard CAD software systems.

Audience: Undergraduate

2. Describe and compare technologies and processes that complement and enhance computer-aided design.

Audience: Undergraduate

3. Digitize, create, and modify digital pattern pieces using an industry standard CAD system and its various menu functions.

Audience: Undergraduate

4. Create model lists and prepare patterns for plotting and printing.

Audience: Undergraduate

5. Develop a cohesive digital pattern collection of original designs that incorporate principles of sustainable and/or circular design.

Audience: Undergraduate

**DS 501 – SPECIAL TOPICS**

1-3 credits.

Specialized topics of current interest.

**Requisites:** None**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2026**DS/COMP SCI/ISY E 518 – WEARABLE TECHNOLOGY**

3 credits.

Gives students hands-on experience in building wearable computing platforms. Designed for students who have a background in textiles and apparel design, computer science, engineering or media arts. By the completion of the course students will have fundamental knowledge of electronic circuitry, programming, and "maker skills".

**Requisites:** Sophomore standing**Course Designation:** Level - Intermediate

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No**Last Taught:** Fall 2022**DS 519 – COLLECTION DEVELOPMENT**

3 credits.

Demonstrate accumulated learning through a semester long project in the development of a collection of marketable artisan works within your own media. Combines classroom-based learning explorations with real world technical and economic considerations to successfully navigate a balance between expansive thinking and application in real world situations.

**Requisites:** Junior standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2026

### **DS 521 – ENVIRONMENTS OF CRISIS & DESIGN**

3 credits.

Explores emerging built environments designed to support people undergoing crises such as disasters, conflicts, forced migration. Focuses on psycho-social components to employ human-centered design lens to environments of crisis. Examines theoretical frameworks on stress, trauma-informed practices, supportive environments, and restoration. Investigates physical spaces in crisis environments and their health and wellbeing impacts. Evaluates design, policy interventions from lenses of equity and justice, human rights, and dignity.

**Requisites:** Junior standing

**Course Designation:** Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Examine theoretical frameworks in environmental psychology investigating human-environment relations in environments of crisis.

Audience: Both Grad & Undergrad

2. Demonstrate familiarity with the breadth of human experiences in crisis situations focusing on the built environment.

Audience: Both Grad & Undergrad

3. Describe health and well-being impacts of built environments on people undergoing crisis.

Audience: Both Grad & Undergrad

4. Critically evaluate environmental interventions in spaces of crisis to investigate their psycho-social supportiveness.

Audience: Both Grad & Undergrad

5. Apply theoretical frameworks in development of research questions within the context of environments of crisis.

Audience: Graduate

6. Critique existing crisis contexts from a human-centered perspective.

Audience: Graduate

### **DS 527 – GLOBAL ARTISANS**

3 credits.

In the field of design, there has been an increased emphasis on ethical practices in production and consumption. Utilizing "design thinking", become exposed to important issues surrounding small-scale artisan production and develop valuable hands-on skills working with artisan partners through design, quality control, branding and story-telling. Topics may include: fair trade development, product design, cultural implications, as well as pricing, marketing, and sales.

**Requisites:** Junior standing

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2026

### **DS 528 – EXPERIMENTAL TEXTILE DESIGN**

2-3 credits.

Experimental design and decorative principles; elements and techniques for the animation of textile surfaces.

**Requisites:** None

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

### **DS 529 – BUILDING A SUSTAINABLE CREATIVE PRACTICE**

3 credits.

Artists and designers' material choices influence the content, social meaning, and physical structure of their work, as well as leaving an environmental foot print and affecting social exchange. Consideration given to reuse and recycling, and critically engaging ideas of sustainability in art making and design practice with an emphasis on fiber related topics including textile and apparel design, soft sculpture, papermaking and book arts, as well as exhibition, installation, and/or the distribution of finished works.

**Requisites:** Junior standing

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**DS 549 – ENVIRONMENTAL CONTROL SYSTEMS: LIGHTING, ACOUSTICS, AND THERMAL COMFORT IN BUILDINGS**

3 credits.

The ways in which we design, construct, and operate has significant impacts on the building occupants and the environment. Architects, designers, and building engineers can work closely together to reduce depletion of critical resources, prevent environmental degradation, and create built environments that are livable, comfortable, safe, and productive. Offers the foundational knowledge on which such practice can be built on. Through a series of lectures, field measurements, and building simulations, understand how lighting, acoustics, and thermal properties behave in buildings and influence the building occupants. The proper application of building design as well as methods for designing and evaluating these features are discussed.

**Requisites:** Satisfied Quantitative Reasoning (QR) A requirement and declared in Interior Architecture; or graduate/professional standing

**Course Designation:** Gen Ed - Quantitative Reasoning Part B

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Understand physics of light, sound, color, and thermal transfer as they pertain to lighting, acoustics, and thermal comfort in buildings.

Audience: Both Grad & Undergrad

2. Understand the earth science that governs solar geometry and the climate as they pertain to lighting and thermal comfort in buildings.

Audience: Both Grad & Undergrad

3. Understand human physiology and psychology related to lighting, acoustics, and thermal comfort in buildings.

Audience: Both Grad & Undergrad

4. Critically evaluate lighting, acoustics, and thermal comfort in both existing and future buildings using various measurement methods and computational models.

Audience: Both Grad & Undergrad

5. Apply concepts of lighting, acoustics, and thermal transfer to design strategies in order to create optimal experiences for building occupants.

Audience: Both Grad & Undergrad

6. Develop a conceptually sophisticated research projects that focuses on building performance evaluation.

Audience: Graduate

7. Learn and lead from class activities, research projects, and self-directed study.

Audience: Graduate

**DS 550 – MATERIAL CULTURE OF CHILDHOOD**

3 credits.

Explores the histories of Children and Childhood and a set of scholarly methods called Material Culture. How have changing understandings of child development, social and cultural history, and the history of the family shaped and been shaped by children's material worlds? Explores design and material culture topics that illuminate how histories of young children have been understood and treated and considers objects that reflect the experiences of young people, from birth through school age--clothing for babies and children, garments that mark aging and transitions, histories of homes and interior furnishings, toys and play things, objects for learning, and material objects related to caregiving.

**Requisites:** Sophomore standing

**Course Designation:** Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Learning Outcomes:** 1. Interpret theoretical and historical texts in Material Culture, applying the concepts to written and oral explanations  
Audience: Both Grad & Undergrad

2. Evaluate objects and images as sources of social and cultural information from a material culture perspective

Audience: Both Grad & Undergrad

3. Describe and write about the historical development of the concept of childhood and the influence of material culture on its construction

Audience: Both Grad & Undergrad

4. Explore and test how concepts of childhood are closely connected to ideas about race, gender, class, ethnicity, religion/faith, and socioeconomic class--and all of those distinctions are reflected materially.  
Audience: Both Grad & Undergrad

5. Practice conducting object-based research and writing.

Audience: Both Grad & Undergrad

6. Propose and draft a scholarly project focused on the material culture of childhood that aims to make an original contribution to your field.

Audience: Graduate

**DS 555 – SUSTAINABLE FASHION PRACTICES - UNRAVELED & REDESIGNED**

3 credits.

Explores sustainable fashion design through the lens of circular design principles, ethical production, alternative business models, and material innovation. Emphasizes waste reduction, upcycling, regenerative design, local production networks, and closed-loop fashion systems. Combines theoretical exploration with hands-on projects to analyze the environmental and social impact of the fashion industry, experimental approaches, and creative solutions that align with circular economy frameworks. Encourages critical thinking, material research, and the development of fashion garments with minimal environmental impact.

**Requisites:** DS 253**Repeatable for Credit:** No

**Learning Outcomes:** 1. Define key concepts of sustainability and circular design in fashion, distinguishing between linear and circular systems.  
Audience: Undergraduate

2. Identify and evaluate sustainable materials, ethical production techniques, and low-impact design practices.  
Audience: Undergraduate

3. Apply circular design principles to develop innovative fashion products that minimize waste and extend the life cycle of garments.  
Audience: Undergraduate

4. Experiment with sustainable construction techniques, including zero-waste patternmaking, upcycling, and modular design, to create responsible fashion prototypes.  
Audience: Undergraduate

5. Integrate material research, lifecycle assessment, and circular strategies in the design of a sustainable fashion collection and garment construction.  
Audience: Undergraduate

Audience: Undergraduate

6. Communicate sustainability concepts effectively through visual storytelling, technical documentation, and industry-relevant presentations.  
Audience: Undergraduate

Audience: Undergraduate

**DS 561 – TEXTILES: SPECIFICATIONS AND END USE ANALYSIS**

3 credits.

Physical textile testings are studied. Emphasis is placed on the evaluation of textiles intended for use as apparel and for interiors. Writing specifications, and minimum performance standards are also discussed.

**Requisites:** DS 224, 251, or graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2022**DS 570 – DESIGN AND FASHION EVENT MANAGEMENT**

3 credits.

Production of a student-driven, student-centered design and fashion event presents the framework for advanced experience and study. Provides the opportunity to study and to actively engage in high-level interdisciplinary exploration and collaboration. Transferring discipline-specific skills to a new context, learn methods for testing, review, and revision to develop problem-solving skills and communication. Encourages teamwork as well as crossdisciplinary understanding and appreciation.

**Requisites:** DS 270 or graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2020**DS/COMP SCI 579 – VIRTUAL REALITY**

3 credits.

Introduces the field of virtual reality with an emphasis on creating immersive, interactive virtual experiences. Survey topics include the history of virtual reality technology, computer graphics and 3D modeling, human perception and psychology, and principles of human-computer interaction and user interface design. Is intended for individuals with backgrounds in Computer Science, Engineering, Art, Architecture, or Design.

**Requisites:** Sophomore standing**Course Designation:** Level - Intermediate

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** No**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Define and describe concepts related to virtual reality.  
Audience: Undergraduate

Audience: Undergraduate

2. Demonstrate a basic understanding of how interactive computer graphics and game engines are built and operate.  
Audience: Undergraduate

Audience: Undergraduate

3. Identify the underlying components of virtual reality software and hardware.  
Audience: Undergraduate

Audience: Undergraduate

4. Identify the potential applications and challenges of virtual reality.  
Audience: Undergraduate

Audience: Undergraduate

5. Apply principles of virtual reality in the construction of a class project.  
Audience: Undergraduate

Audience: Undergraduate

**DS 601 – INTERNSHIP**

1-8 credits.

A supervised internship providing hands-on training in a professional experience in design studies related fields.

**Requisites:** Consent of instructor**Course Designation:** Workplace - Workplace Experience Course**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Summer 2025

**DS 620 – VISUAL THINKING FOR PROBLEM SOLVING**

3 credits.

Visual thinking's theoretical foundations are paired with visual thinking skills, tools, and applications. The format explores the way these can be combined while thinking critically and engaging with problem solving methodologies such as design thinking. Theoretical foundations include the elements and principles of design, the processes of visual narrative, and perceptual theories. Skills and applications include manual sketching, 3D visualization and modeling, data visualization, image manipulation, graphic design, video presentation, multimedia, design for 3D printing and fabrication, diagramming, digital rendering, and graphic design.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2025**Learning Outcomes:** 1. Understand what it means to think and communicate visually.

Audience: Graduate

2. Manipulate visual content created by others, create new visual content related to problem solving, and integrate a wide range of visual thinking tools and processes in order to create a compelling narrative (including data visualization) in the context of solving a design problem.

Audience: Graduate

3. Understand and apply the theoretical foundations of visual communication, such as the elements and principles of design, to engage in effective visual communication and data visualization.

Audience: Graduate

4. Understand the differences between, and similarities among, a wide array of visual thinking tools and methods,

Audience: Graduate

5. Choose and apply visual thinking tools and methods that are useful for different types of problem solving

Audience: Graduate

6. Generate quick hand drawn sketches and diagrams for study and communication.

Audience: Graduate

7. Develop a basic knowledge of how to apply technologies used for visual communication, including industry standard software applications in 2D, 3D, and 4D, along with foundational skills that will support future in-depth study.

Audience: Graduate

8. Generate digital output files that can be used for digital fabrication such as laser cutting, CNC routing, and 3D printing.

Audience: Graduate

**DS 622 – INTERIOR DESIGN III**

4 credits.

Design of commercial interiors with emphasis on design process, programming, space planning, selection of interior materials, furniture, and lighting. Field trip required.

**Requisites:** DS 322**Repeatable for Credit:** No**Last Taught:** Fall 2025**DS 623 – INTERIOR DESIGN IV**

4 credits.

Design of commercial interiors with emphasis on acoustics, codes, costs, specifications, details, and visual presentation. Field trip required.

**Requisites:** DS 622**Repeatable for Credit:** No**Last Taught:** Spring 2026

**DS 624 – INTERIOR ARCHITECTURE PROFESSIONAL PRACTICE**

3 credits.

Prepares Interior Architecture majors to launch their careers in design. Become acquainted with aspects of the interior design profession: how an office works, the project delivery process in interior design practice, and post-graduation material preparation.

**Requisites:** DS 322

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Define contexts for interior design practice such as large or small practices, stand-alone or interior practices included in architectural firms, hybrid practices, and collaborative practices.

Audience: Undergraduate

2. Demonstrate awareness of the impact of a global market for design services on design practices.

Audience: Undergraduate

3. Describe the breadth and depth of interior design's impact and value including sustainability and economic, social, and human-performance responsibility.

Audience: Undergraduate

4. Identify the components of business practice such as business development, brand management, financial management, risk management, client relations, and human resources.

Audience: Undergraduate

5. Give examples of professional organization in the field and legal recognition for the interior design profession.

Audience: Undergraduate

6. Recognize the various types of professional business formations, elements of project management, and instruments of service.

Audience: Undergraduate

7. Understand business practices related to professional ethics and conduct.

Audience: Undergraduate

8. Integrate best practices and design principles in the production of self-marketing materials such as the portfolio and resume.

Audience: Undergraduate

**DS 626 – INTERIOR DESIGN V**

4 credits.

Provides the opportunity to explore and refine interior design skills while responding to current events and the ever changing world around us.

Follow the design process from research, programming, conceptual and schematic design, full design development and presentation. All aspects of designing an interiors project in detail will be addressed, including space planning, interior architectural articulation, furniture selection, finish selection, detailing of custom elements, rendering, website development for client presentation, and more.

**Requisites:** DS 623

**Repeatable for Credit:** No

**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Develop studio habits that support a consistent, rigorous, reflective work ethic.

Audience: Undergraduate

2. Critically analyze individual work and the work of classmates using appropriate terminology related to the elements and principles of interior architecture.

Audience: Undergraduate

3. Visualize interior architecture design concepts through the integrated approach of using various pieces of software.

Audience: Undergraduate

4. Explore the role of an interior designer in an ever changing world

Audience: Undergraduate

5. Utilize and build upon all of the fundamental skills learned in the Interior Architecture program

Audience: Undergraduate

6. Advance knowledge of the design process, from research to presentation.

Audience: Undergraduate

7. Create a contemporary client presentation in an era of limited contact.

Audience: Undergraduate

**DS/LAND ARC 639 – CULTURE AND BUILT ENVIRONMENT**

3 credits.

Explores cultural values embedded in buildings through understanding physical configurations, social organizations, practiced/symbolic/representational aspects of buildings. Covers a wide range of cultures and the built environments they produce including examples from the Americas, the Middle East, as well as those of the many ethnic minorities in the U.S.

**Requisites:** Junior standing**Course Designation:** Ethnic St - Counts toward Ethnic Studies requirement

Level - Intermediate

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No**Last Taught:** Fall 2024**DS 641 – ADVANCED DESIGN THINKING FOR TRANSFORMATION**

3 credits.

An empathetic, human-centered perspective that uses Design Thinking and draws from historical precedence and current research from a variety of fields to help solve complex and persistent problems such as student mental health awareness and lack of clean drinking water. Utilizes advanced design thinking techniques to enhance creative analysis and problem solving to address real-world problems with real-world constraints and the limitations of technology. Projects range from ways to improve everyday situations to community issues.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2025

**Learning Outcomes:** 1. Demonstrate the ability to develop and understand empathy through the practice of observation, interviewing skills and other methods.

Audience: Graduate

2. Recognize how knowledge, concepts, and theories outside of the field of design are relevant to informing new approaches to design solutions.

Audience: Graduate

3. Examine a wide range of problems confronting society and identify interdependencies between context practice and methods.

Audience: Graduate

4. Exhibit the ability to be creative, collaborative and divergent thinkers who can generate and visually communicate multiple ideas.

Audience: Graduate

5. Apply the iterative design thinking process to develop innovative solutions for challenging real world problems.

Audience: Graduate

**DS 642 – TASTE**

3 credits.

Exploration of the idea of taste - both "good" and "bad", in "popular" and "high" culture. Cross-cultural readings from theoretical and historical perspectives, relating to architecture, landscape, public space, art, and clothing.

**Requisites:** Graduate/professional standing**Repeatable for Credit:** No**Last Taught:** Fall 2023

**DS 650 – COLLABORATIVE DESIGN CAPSTONE**

3 credits.

Culminates design education through real-world challenges. Develops critical thinking, creativity, innovation for effective solutions. Emphasizes collaborative teamwork within multidisciplinary groups. Guides portfolio development, underscoring growth and versatility as a designer. Topics include defining problems through research, conceptualizing solutions, designing prototypes and interfaces, conducting user testing, and implementing designs.

**Requisites:** DS 123, 140, 220, 221, DS/GEN BUS 240, and ART HIST/ ANTHRO/DS/HISTORY/LAND ARC 264

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Apply a deep understanding of design principles, aesthetics, and usability to create visually compelling and functional solutions.

Audience: Undergraduate

2. Synthesize knowledge from various design disciplines to address complex design challenges.

Audience: Undergraduate

3. Define design problems accurately by conducting thorough research, historical analysis, analyzing user needs, and identifying project constraints.

Audience: Undergraduate

4. Collaborate effectively within diverse teams, leveraging each member's strengths to achieve project goals and outcomes.

Audience: Undergraduate

5. Develop and implement project plans, considering scope, timeline, resource allocation, and risk management to deliver projects on schedule.

Audience: Undergraduate

6. Communicate design concepts persuasively through compelling visual presentations, articulate written explanations, and confident verbal discussions.

Audience: Undergraduate

7. Actively seek and incorporate constructive feedback to refine and enhance design iterations, demonstrating a commitment to continuous improvement.

Audience: Undergraduate

8. Deliver polished and professional design pitches and presentations that effectively convey the design process, rationale, and outcomes.

Audience: Undergraduate

**DS 679 – RESEARCH METHODS IN DESIGN**

3 credits.

Future designers need to have critical research knowledge and skillsets that include mastery of various research methods, related issues, and practical experiences in understanding and interpreting quantitative or qualitative research. Design research allows designers to be involved directly with objects, products, and environments they design through human-centered inquiry. The major concepts addressed include design research and its influence on the practice of design, generating research questions, critical literature review, research evaluation, data management and analysis, and various research strategies, all geared toward application to various design practices.

**Requisites:** Senior standing

**Course Designation:** Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2026

**Learning Outcomes:** 1. Appreciate the role of research in design as a tool to involve directly with object, products, and environment that you design

Audience: Both Grad & Undergrad

2. Recognize the value of multiple methods and perspectives in design research

Audience: Both Grad & Undergrad

3. Explore how research can inform design practices in each design stages

Audience: Both Grad & Undergrad

4. Identify relevant sources and professional organizations that can be accessed for information gathering, research, and problem-solving processes

Audience: Both Grad & Undergrad

5. Apply assessment processes to evaluate design outcomes

Audience: Both Grad & Undergrad

6. Effectively present and communicate research to an audience both in written, graphic and oral format

Audience: Both Grad & Undergrad

7. Critically assess the strengths and weaknesses of various research methodologies and techniques

Audience: Graduate

8. Choose and apply specific research methods based on critical assessment of various research methods

Audience: Graduate

9. Develop a conceptually sophisticated research projects that suits their graduate research agenda

Audience: Graduate

10. Demonstrate beginning-level statistical techniques, and critically read studies using such techniques

Audience: Graduate

11. Learn and lead from class activities, research projects, and self-directed study

Audience: Graduate

**DS 680 – SENIOR HONORS THESIS**

2-4 credits.

Individual study in honors as arranged with a faculty member.

**Requisites:** Consent of instructor**Course Designation:** Honors - Honors Only Courses (H)**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Fall 2016**DS 690 – SENIOR THESIS**

2-4 credits.

Individual study as arranged with a faculty member.

**Requisites:** Consent of instructor**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2026**DS 699 – INDEPENDENT STUDY**

1-6 credits.

Directed study projects as arranged with a faculty member.

**Requisites:** Consent of instructor**Course Designation:** Level - Advanced

L&amp;S Credit - Counts as Liberal Arts and Science credit in L&amp;S

**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2026**DS/ANTHRO/ART HIST/HISTORY/LAND ARC 764 – DIMENSIONS OF MATERIAL CULTURE**

4 credits.

This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; discussion of foundational readings in the field; visits to collections and sites on campus and around Madison; discussion of readings assigned by visiting presenters or the professors; and exams and short papers that engage material culture topics.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2026**DS 920 – SEMINAR IN DESIGN STUDIES**

1-3 credits.

A forum to discuss issues in contemporary art and design.

**Requisites:** Consent of instructor**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Fall 2025**DS/URB R PL 955 – PRACTICAL RESEARCH DESIGN AND METHODS OF EMPIRICAL INQUIRY**

3 credits.

Provides a practical introduction to basic concepts of research question formulation, research designs and alternative methods of inquiry, implications for internal validity of the research and generalizability of the findings, operational definitions and measurement validity, reliability, utility and precision.

**Requisites:** Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2022**DS 990 – RESEARCH AND THESIS**

1-12 credits.

Independent research and writing under the supervision of a faculty member.

**Requisites:** Consent of instructor**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2026**DS 999 – INDEPENDENT STUDY**

1-3 credits.

Directed study projects as arranged with a faculty member.

**Requisites:** Consent of instructor**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Spring 2026