

FIBERS (FIBR)

FIBR 102 Introduction to Fibers for Non-majors (5 Credits)

Fibers, an inherently interdisciplinary practice, is grounded in exploration and research of material, process, culture, tradition, sustainability and innovation. Students are exposed to the facilities, equipment and opportunities within the department. A broad overview of surface, structure, and color techniques and applications is explored.

Prerequisite(s): (DRAW 100 or FOUN 111) and (DSGN 100 or FOUN 110).

Attributes: Studio Elective Requirement

FIBR 160 Surface Design: Drawing for Print and Pattern (5 Credits)

Drawing is essential for communicating design ideas and critical to the discipline of fibers. With a focus on drawing and composition skills, students in this course investigate strategies for print and pattern creation. Through experimentation and critique, they examine the diverse techniques, materials and applications used for surface design development.

Prerequisite(s): (DSGN 100 or FOUN 110) and (DRAW 101 or FOUN 220).

Attributes: Studio Elective Requirement

FIBR 170 Textile Structures: Material, Form, and Function (5 Credits)

In this fibers laboratory, students experiment with textile structures and processes as they learn to source and combine a wide range of materials. With a focus on sustainability, technological innovation and material development, students investigate contemporary studio and industry practices and explore methods for research, ideation and problem solving.

Prerequisite(s): (DRAW 101 or FOUN 220) and (DSGN 102 or FOUN 240).

Attributes: Studio Elective Requirement

FIBR 190 Color Lab: Textile Trends and Techniques (5 Credits)

By applying color theory and trend research to color practice in textiles, students explore the technical and aesthetic aspects of dyeing. Drawing from historical and contemporary models, students expand their knowledge of color through sampling and material investigation. Students research color applications in product design, fine art, fashion, interiors and textiles to inform an original surface design collection.

Prerequisite(s): (DRAW 101 or FOUN 220) and (DSGN 101 or FOUN 112) and (FASH 105 or FIBR 160); Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 201 Woven Structures: Cloth and Context (5 Credits)

From shelter and clothing to ceremony and symbolism, the process of weaving has informed human and technological development throughout history. In this course, students explore weaving traditions and the use of the loom as a tool for innovative design and creative expression. Students gain experience in selecting the proper materials and techniques to create utilitarian textiles and fine art woven structures.

Prerequisite(s): FIBR 170.

Attributes: Studio Elective Requirement

FIBR 205 Fibers Studio: Sewing Technology for Fibers (5 Credits)

Students strengthen their technical skills and build toward creative careers in this course dedicated to sewing for fibers. By working with a sewing machine, students develop textiles into professionally finished pieces and learn vital stitching and structural techniques. The end result is a highly marketable skill set, applicable to both fine art and functional objects.

Prerequisite(s): FASH 100; ACCE 110 or FIBR 170; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 221 Survey of Textiles: Origins and Evolution (5 Credits)

From the Neolithic period to the present day, fibers and cloth have been essential to the evolution of humankind. In this course, students take a journey through various cultures, learning how textile has shaped economies, empires, spirituality and everyday life.

Prerequisite(s): (CTXT 121 or ARTH 100) and (CTXT 122 or ARTH 110) and FIBR 160 and FIBR 170.

FIBR 276 Digital Surface Design: Image, Pattern, and Presentation (5 Credits)

Through integration of hand and digital technologies, students experiment with color, imagery and pattern to develop surface design solutions for fine art and industry. Students develop proficiency with a variety of digital applications as they design, produce and present a collection to showcase their concepts and creative processes.

Prerequisite(s): (DIGI 130 or CMPA 110) and FIBR 160.

Attributes: Studio Elective Requirement

FIBR 312 Surface Design: Screen Printing for Textiles (5 Credits)

From custom-printed wallpaper to industrially-printed fabric, screen printing is an essential tool for textile designers. This course introduces students to materials and methods for developing proficiency and confidence in screen printing, as well as an understanding of industry requirements and opportunities. Students explore color, texture, composition and pattern as they learn to prepare screens, make color separations and print on a variety of substrates.

Prerequisite(s): FIBR 276; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 315 Complex Woven Structures: Dobby Technology (5 Credits)

Digital dobby weaving allows designers and artists to create complex, multilayered fabrics for a variety of applications. Using specialized software and dobby looms with a digital interface, students explore woven structures and innovative uses of material to design and weave multiple-harness fabrics for fashion, interiors, studio production and fine art.

Prerequisite(s): FIBR 201 and FIBR 276.

Attributes: Studio Elective Requirement

FIBR 318 Digital Surface Design: Print and Pattern Development (5 Credits)

Surface designers create patterns that transform objects and environments. With diverse applications in fields such as fashion, interiors, product design and architecture, students learn to integrate a variety of imaging technology to produce surface designs of distinctive character and technical expertise. Industry standards are applied to all phases of the design process, from contextual research to pattern and color development to fabric production.

Prerequisite(s): FIBR 276.

Attributes: Studio Elective Requirement

FIBR 319 Textile Futures: Digital Applications for Kinematic Structures (5 Credits)

Digital 3D technologies empower textile designers to envision and create the impossible. From laser cutting to 3D printing, students use technologies to transform materials and develop innovative, kinetic designs. Equipped with an understanding of industry parameters, students navigate the complexities of outsourcing to communicate project specifications.

Prerequisite(s): VSFX 210; VFX 210; ITGM 236; ITGM 240; ANIM 249; ANIM 250; FIBR 276 or MOME 401.

Attributes: Studio Elective Requirement

FIBR 321 Weaving II: Exploration of Color and Process in Woven Structures (5 Credits)

This course provides an intermediate-level study of the loom as a design tool. Particular emphasis is placed on loom-controlled weave structures; weave drafting; and manipulation of warp, weft and woven fabric through dyeing and other weaver-controlled methods.

Prerequisite(s): FIBR 190 and FIBR 201.

Attributes: Studio Elective Requirement

FIBR 334 Local Cloth, Local Color (5 Credits)

This course focuses on the investigation of local resources to examine textiles, processes, environment and media of the area. Students incorporate digital photography, drawings and textile sampling to create a "touch book" to record the local experience that is unique to the regions explored and visited and to develop a personal point of view. Students develop a body of work for critique based on that point of view. Repeatable. Student may take course up to three times for credit.

Prerequisite(s): FIBR 170 and FIBR 190.

Attributes: Studio Elective Requirement

FIBR 337 Business Practices for Fibers (5 Credits)

Professional and business opportunities in fibers range from print, woven and knit design for fashion and interiors to large-scale installations and small-scale bespoke production lines. In this course, students prepare for professional careers through contextual research, industry analysis, business proposals, financial considerations and best practices within the field of fibers.

Prerequisite(s): FIBR 315; FIBR 318; FIBR 319 or FIBR 419.

Attributes: Business-focused elective

FIBR 340 Natural Dyes and Dyeing (5 Credits)

This course investigates the use of various natural dyestuffs, mordants and materials through the immersion and direct application processes. Research of the traditional, historic uses of natural dyes and contemporary practice within a design, fine art and studio production context also are covered.

Prerequisite(s): (DSGN 101 or FOUN 112) and FIBR 190; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 342 Embellished Surfaces: Bespoke Embroidery to Thermoformed Fabric (5 Credits)

From ceremonial vestments to responsive textiles, complex embellished surfaces permeate a variety of historical and contemporary contexts. In this course, students refine textile surface and structure processes to build integrated surfaces for fine art, fashion and commercial applications. Students produce a cohesive swatch collection that integrates hand and machine embroidery, digital printing and thermoforming techniques.

Prerequisite(s): FIBR 312; FIBR 315; FIBR 318; FIBR 319 or FIBR 419; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 345 Studio Production (5 Credits)

This course explores the design and production of a line of handmade objects. The course covers fabrication techniques and efficient methods of producing multiples. Many facets of promoting and marketing the work are investigated, including developing product identity, targeting a market and locating optimum sales venues.

Prerequisite(s): FIBR 170 and FIBR 190 and (FIBR 315; FIBR 318; FIBR 319; FIBR 419 or FIBR 495L).

Attributes: Business-focused elective; Studio Elective Requirement

FIBR 350 Embroidered Opulence: From Conceptual to Couture (5 Credits)

Through examination and experimentation with historical and contemporary embellishments, students in this course discover the relevance and possibilities of fine hand embroidery. From fashion and interiors to studio production and fine art, students research, design and execute a collection of samples and finished work for a variety of applications and industries.

Prerequisite(s): ACCE 205; FASH 215; JEWL 225; MTJW 225 or FIBR 276.

Attributes: Studio Elective Requirement

FIBR 405 Machine Knitting for Art and Industry (5 Credits)

Starting with a single loop, knitting has the capacity to generate an infinite range of possibilities for artists and designers, from fine art installation to functional objects to garment construction. In this course, students learn mechanized knitting techniques that allow them to create advanced applications in terms of scale, structure and efficiency. Research into the history and evolution of knitting and its role in contemporary culture inspires the use of unique structures and alternative materials.

Prerequisite(s): FIBR 170; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 410 Structures, Materials, and Techniques: Applied Processes and Contextual Investigations (5 Credits)

This course expands on the ideas and techniques gained in previous structure courses. Students pursue in-depth explorations of a particular fibers process and/or application, allowing them to develop more technically and conceptually refined work.

Prerequisite(s): FIBR 315; FIBR 318; FIBR 319; FIBR 419 or FIBR 495L; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 412 Surface Design: Screen Printing for Fashion, Interiors, and Fine Art (5 Credits)

In the era of fast fashion and quick consumption, the process of screen printing by hand provides a rich, luxurious, tactile alternative to mass-production printing. The nuances of multi-layered large-scale printing and the diversity of materials explored help students hone and define their aesthetic and technical skills. Students complete projects that explore custom and commercial applications for screen printing in fashion, interiors and fine art.

Prerequisite(s): FIBR 312; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 415 Complex Woven Structures: Jacquard Technology (5 Credits)

Digital Jacquard technology translates pixels on a screen into complex woven cloth. From connected textiles to stylish fashion fabrics to richly patterned upholstery, students use industry-specific technology to create woven structures for a variety of professional and studio applications.

Prerequisite(s): FIBR 201 and FIBR 276.

Attributes: Studio Elective Requirement

FIBR 416 Digital Surface Printing: Material and Image Innovation (5 Credits)

Digital printing has revolutionized the surface design industry, creating a multitude of new possibilities for designers and artists. In this course, students print on a variety of substrates such as textiles, wood, metal and plastics for fine art, fashion and industry applications. By working hands-on with digital printers to produce their designs, students explore the concepts and opportunities made available by this game-changing technology.

Prerequisite(s): FIBR 190 and (FIBR 276; FASH 324; FASH 300 or ILLU 386).

Attributes: Studio Elective Requirement

FIBR 418 Digital Surface Design: Collection Development for Interiors and Fashion (5 Credits)

The surface design industry presents a wide range of opportunities in the fields of interiors and fashion. In this course, students advance their knowledge of trend forecasting, theme development, repeat pattern composition, color and style to build an industry-specific collection.

Prerequisite(s): FIBR 318; FASH 324; FASH 300 or ILLU 386.

Attributes: Studio Elective Requirement

FIBR 440 Fibers Senior Studio I: Research and Concept Development (5 Credits)

Contemporary fiber practice fuses conceptual exploration with materiality to present a distinct, creative voice. Through reflection and synthesis of cumulative knowledge, students work collaboratively to cultivate and strengthen their unique point of view. Students engage in an iterative process of research, writing, discussion, drawing, sampling and critique as they create personal projects.

Prerequisite(s): FIBR 201 and (FIBR 221 or FIBR 306) and (FIBR 315; FIBR 318; FIBR 319 or FIBR 419).

Attributes: Studio Elective Requirement

FIBR 448 Fibers for Hospitality Markets (5 Credits)

From five-star restaurants to luxury hotels, yachts and spas, the hospitality industry presents a wide range of opportunities for textile and surface designers. In this course, students research technical considerations, such as performance characteristics and testing, to develop collections and products for hospitality interiors, including designs for wallcoverings, flooring and upholstery.

Prerequisite(s): FIBR 318.

Attributes: Business-focused elective; Studio Elective Requirement

FIBR 450 Fibers Senior Studio II: Innovation and Production (5 Credits)

Following the research and concept development of Fibers Senior Studio I, students effectively communicate their vision and define their practice through production of their individual projects. The body of work they produce informs the development of a thematic and professional portfolio.

Prerequisite(s): FIBR 440 or FIBR 401.

Attributes: Studio Elective Requirement

FIBR 460 Fibers Senior Studio III: Portfolio and Professional Practice (5 Credits)

In this pinnacle course of the fibers program, students refine and curate a unique and cohesive body of work in pursuit of professional goals. Students professionally present their process and final work, which prepares them for successful creative practice.

Prerequisite(s): FIBR 450 or FIBR 403.

Attributes: Studio Elective Requirement

FIBR 479 Undergraduate Internship (5 Credits)

Internships offer students valuable opportunities to work in a professional environment and gain firsthand experience to help them prepare for careers. In an approved internship setting, a student typically spends one quarter working with an on-site professional supervisor and a faculty internship supervisor to achieve specific goals and objectives related to the program of study.

FIBR 502 Materiality and Meaning in Fibers (5 Credits)

Through a series of workshops, material and process explorations, and independent research, students work on building a foundation to begin a design or studio practice. The course explores ways that artists and designers develop ideas and focuses on strengthening skills in materials and process research, drawing and writing.

Attributes: Studio Elective Requirement

FIBR 704 Fibers Studio I: Discovery (5 Credits)

Through research and exploration within the field of fibers, students identify their professional goals and strategies for achievement. Students critically reflect on their work and the work of peers to begin defining a direction for their studio practice.

Attributes: Studio Elective Requirement

FIBR 707 Fibers Culture and Context (5 Credits)

In this course, students investigate historical, social and cultural contexts in their relationship to contemporary textile practices and their makers. Emphasis is placed on the application of scholarly research to inform thesis and project development.

FIBR 708 Surface Design: Screen Printing I (5 Credits)

A refined understanding of aesthetics and innovation allows textile designers to use screen printing as a viable method to explore new ideas, surfaces and products. In this course, students experiment with screen printing methods, supported by contemporary industry research, in order to further the development of their body of work. Students use hand and digital processes to build motifs that can be extended into registered lengths.

Prerequisite(s): Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 720 Textile Innovation I: 3D Digital Structures (5 Credits)

Through industry-specific software application, students gain the skills to utilize 2D vector-based and 3D modeling programs to develop innovative designs for digital output devices. Students research the relationship between digital tools and textile structures to create innovative 3D textiles and schematic drawings.

Attributes: Studio Elective Requirement

FIBR 724 Digital Surface Design I: Print and Pattern (5 Credits)

From hand to digital, students investigate all phases of the print and pattern design process, including color research and development and pattern creation. Students design and produce repeat patterns for the textile industry from conceptualization to final presentation. Students place special focus on the input methods that relate to their area of concentration.

Attributes: Studio Elective Requirement

FIBR 726 Complex Woven Structures I: Dobby Design (5 Credits)

From intricately patterned fabrics to dimensional, multi-layered woven structures, dobbie technology provides many possibilities for creating complex cloth. In this course, students experience the design and production of woven fabrics using specialized software and dobbie looms. Students are encouraged to apply their own artistic and design direction in the development of swatch collections and expanded projects.

Attributes: Studio Elective Requirement

FIBR 727 Interworked Structures I: Machine-knitted Textiles (5 Credits)

Through experimentation with innovative structures and alternative materials, students learn machine-knitting techniques and applications for the fields of art and design. In this course, students curate a collection of machine-knit swatches that inform their larger body of work. Students broaden their range of capabilities to translate their personal aesthetic into a more refined materiality.

Prerequisite(s): Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 728 Structural Materials and Processes (5 Credits)

Students explore technical and conceptual issues in the construction of three-dimensional fiber structures. Innovative uses of materials and processes are emphasized. Students are introduced to contemporary and historic three-dimensional fiber forms and analyze the context in which the work was produced.

Prerequisite(s): Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 729 Fibers Studio II: Practice (5 Credits)

Building a studio practice requires dedication, discipline and the desire to develop an artistic vision. Through the development of a studio practice, students further enhance their point of view and begin to build a body of work. Students investigate a range of original media and processes with a focus on developing a research methodology.

Prerequisite(s): FIBR 704.

Attributes: Studio Elective Requirement

FIBR 730 Sourcing the Local: Color and Cloth in Context (5 Credits)

The work of artists and designers is intrinsically influenced by their environment. In this course, students experience captivating regions through the exploration of local resources, creative processes, distinct environments and unique media that make their textiles distinguishable. While immersed in local culture, students document experiences through photography, drawings and textile sampling. The body of work developed demonstrates the student's personal aesthetic, as well as the influences of the region. Repeatable. Student may take course up to three times for credit.

Prerequisite(s): FIBR 704.

Attributes: Studio Elective Requirement

FIBR 731 Textile Innovation II: Surface Manipulation and Embellishment (5 Credits)

From couched thread to micro-controlled wire, historic and contemporary embellished surfaces are the foundation for responsive textiles. In this course, students research, build and catalog innovative materials and techniques for the development of original creations. By synthesizing their research and material exploration, students contextualize their design decisions and create proposals for large-scale works.

Prerequisite(s): FIBR 720; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 732 Digital Surface Design II: Global Production (5 Credits)

From customization, to rapid prototyping and reduced waste, digital printing technology has revolutionized the global fibers industry. Students utilize a variety of digital printing tools to produce surface designs on a wide range of substrates including textiles, wood, metal and plastics, for fine art and global industry applications. The process of preparing unique designs for outsourcing is also explored.

Prerequisite(s): FIBR 724.

Attributes: Studio Elective Requirement

FIBR 733 Complex Woven Structures II: Jacquard Design (5 Credits)

From damask to brocade, jacquard technology translates images into woven cloth. Using specially designed software, students explore the technical, functional and aesthetic considerations necessary to design complex jacquard-woven fabrics. Students are encouraged to apply their individual aesthetic to the development of a range of jacquard projects.

Prerequisite(s): (FIBR 724 or FIBR 740A).

Attributes: Studio Elective Requirement

FIBR 737 Interworked Structures II: Industrialized Knitting (5 Credits)

While investigating and expanding upon the properties related to machine-knitted structures, students consider historical and contemporary issues and the cultural implications of knitting on material culture. Through this exploration, students develop a collection of work in their chosen field of interest.

Prerequisite(s): FIBR 727; Liability waiver is required.

Attributes: Studio Elective Requirement

FIBR 738 Critical Perspectives for Fibers (5 Credits)

Students explore ideology related to fibers practice in the contemporary art and design world within the context of current issues, theories and polemics pertinent to the nature of art and mass culture. Students engage in critical discourse to develop a unique point of view related to their individual studio practice.

Prerequisite(s): FIBR 704.

FIBR 744 Advanced Design Studio: CollectDigital Surface Design Studio II: Complex Surface Design for Industry (5 Credits)

From hand processes to digital design, this advanced course further explores an in-depth study in producing textile design collections for industry. Students enhance their knowledge and skills in developing textile designs with a focus on design implementation and contextualizing their work within the current industry. In this course, students use a variety of different software and production methods to create a comprehensive collection of designs to support their individual direction in textiles field.

Prerequisite(s): (FIBR 724 or FIBR 740A).

Attributes: Studio Elective Requirement

FIBR 745 Fibers Studio III: Refinement (5 Credits)

Through making, research and critique, students strengthen their studio practice, refine their ideas and prepare for review. Students clarify the trajectory of their studio work through analysis and self-reflection in order to propose a thesis topic.

Prerequisite(s): FIBR 729 or FIBR 716.

Attributes: Studio Elective Requirement

FIBR 748 Business and Entrepreneurship for Fibers (5 Credits)

Demonstrating professional practices, students identify, discuss and present their fibers work in a business-focused environment. Students develop career-specific, self-promotional materials, apply for funding opportunities, and submit their work to competitions and exhibitions.

Prerequisite(s): FIBR 707.

FIBR 749 Fibers M.A. Final Project (5 Credits)

Essential to their professional preparation in fibers, students focus on the research and development of a design collection or focused project and supporting documentation. This culminating visual and written project demonstrates specialization and mastery fostered through each student's graduate coursework.

Prerequisite(s): minimum score of 5 in 'Graduate Prerequisite Test'.

Attributes: Studio Elective Requirement

FIBR 750 Opulence and Adornment (5 Credits)

From haute couture garments to bioplastic sequins, artists and designers innovate the ancient art of embroidery to find renewed significance. In this course, students develop a collection of technical samples, crafting stitch possibilities for fine art and industry applications. Students engage with contemporary issues aligned with their graduate research to refine skills and applications of fine hand-embroidery techniques.

Prerequisite(s): FIBR 720; FIBR 724; FIBR 726 or FIBR 727.

Attributes: Studio Elective Requirement

FIBR 755 Market Applications: Textile Development for Hospitality Markets (5 Credits)

From floor coverings to decorative textiles, hospitality spaces propose unique design opportunities. In this course, students synthesize knowledge from field research and case studies to create cohesive collections and product ideas for a variety of hospitality sectors. Students consider venue, product, brand, interior design, suppliers and customers in the design of their collections.

Attributes: Business-focused elective; Studio Elective Requirement

FIBR 767 Theory and Practice for Fibers (5 Credits)

Through the process of analyzing their work and synthesizing their on-going research, students reconcile the ideas underlying their studio practice. In support of their studio work, students advance their research methodology to refine and articulate their unique point of view.

Prerequisite(s): FIBR 738.

FIBR 769 Fibers M.F.A. Thesis I: Research and Innovation (5 Credits)

Comprehensive research is the catalyst to innovation. By conducting contextual research and sustaining their focused studio practice, students solidify a thesis direction and begin to build their thesis body of work. A focus on advancing congruence between ideas and forms is emphasized.

Prerequisite(s): FIBR 745.

Attributes: Studio Elective Requirement

FIBR 775 Fibers M.F.A. Thesis II: Refinement and Implementation (5 Credits)

From resolving a direction to securing a venue, this course prepares students to successfully refine and implement the visual component of their thesis work. Students gain professional experience by publicly presenting their thesis abstracts and visual work.

Prerequisite(s): FIBR 769 or FIBR 772.

Attributes: Studio Elective Requirement

FIBR 779F Graduate Field Internship (5 Credits)

Students in this course undertake a field assignment under the supervision of a faculty member.

FIBR 779T Graduate Teaching Internship (5 Credits)

Students in this course undertake a teaching assignment under the supervision of a faculty member.

FIBR 790 Fibers M.F.A. Thesis III: Documentation and Exhibition (5 Credits)

At the culmination of the program, students demonstrate their mastery of knowledge and skills in the field of fibers. Students develop and exhibit a professional body of work and written thesis that evidences their individual point of view and aesthetic sensibility.

Prerequisite(s): FIBR 775.