A design-centered program in Fashion Design, Technical Apparel, Fashion Design Management, and Fiber Engineering and Chemistry

Fiber Science & Apparel Design (FSAD) offers a broad range of options, from the art of fashion design, to the business of designing, marketing, and manufacturing apparel and textiles in a global production system; to the science of apparel, textiles, and fibers. This is the only fashion/apparel design major in the Ivy League, combining a strong liberal arts foundation with excellent training in Apparel Design and Fiber Science fields.

Program Options

Fiber Science & Apparel Design

Apparel Design
Studio-based training in apparel design, including fashion and/or technical apparel design

Fashion Design Management
Focus on Management, Product Development, and Communication

Fiber Science
Applied research in fiber/fabric engineering and chemistry

FSAD students complete college requirements in the humanities, natural and social sciences, mathematics, and writing. Everyone also receives an introductory exposure to the basics of design and fiber science. Students choose one of three options that emphasize specific areas: apparel design, fashion design management, or fiber science. Students often combine courses from more than one option.

The Apparel Design option prepares students for careers in the fashion industry through a coordinated series of studio courses exploring concepts and techniques of apparel design. Students are encouraged to develop their individual approach to design, which involves aesthetics, fashion design process, and development of a personal design philosophy. This is supported by studio courses in color and design foundations, technical design, computer aided design, graphics, textile surface design, history of dress and textiles, and advanced fashion theory.

The Fashion Design Management option applies management and marketing principles to this specialized industry. Courses focus on the processes used to develop, manufacture, and market apparel and textile products. Coursework examines topics such as business organizational structures, marketing and advertising, consumer behavior, communication, product development, entrepreneurship, finance, globalization, and issues of ethics, sustainability and social responsibility in the industry.

The Fiber Science option explores the physical, chemical, and engineering properties of fibrous materials, advanced engineering composites, geotextiles, and textiles for functional and protective clothing, as well as the more traditional applications found in apparel and interiors.
Apparel Design

Apparel Design students take studio courses that develop aesthetic sensibilities, technical skills, and an understanding of fashion and the creative process. Digital tools and new technologies are used along with more conventional techniques to communicate fashion ideas, develop pattern making skills, and create finished designs. Foundation courses teach basic color and design principles, and how garments are developed and produced.

Student teamwork is integral to the program. For example, students enrolled in the course Apparel Product Development work in teams to complete a collection. Senior students create and produce an individual collection in a team taught seminar class.

Individualized projects develop the student’s personal sense of style and mastery of technique. For those interested in specialized technical or functional design, there are courses in the design of active sportswear, protective clothing and cutting edge innovations in “smart” textiles and other new materials. Students with an interest in the history and theory of fashion and dress use the Cornell Costume and Textile Collection to learn about ethnic and historic dress.

All students are encouraged to do internships to enhance their professional skills and understanding of the field. Most students also study abroad in exchange programs or specialized fashion programs arranged through Cornell Abroad in places as varied as Hong Kong, London, Paris, and New Zealand. Students are also encouraged to compete in national and international design competitions as mentored independent projects, and many students have won scholarships in the prestigious YMA competition.

Each spring the student-run Cornell Fashion Collective (primarily FSAD majors) sponsors a major fashion show, an eagerly anticipated campus-wide event. Fashions from the runway show that draws an audience of over 2000 people become important additions to the students’ portfolios.

Curriculum

Courses exploring fashion and technical aspects of design and the industry are complemented by a basic grounding in the liberal arts to provide a well-rounded education that integrates apparel design with other fields of study.

Students considering transfer to the program will need two additional semesters to satisfy course requirements, which are sequential.

Careers

Apparel students at Cornell have earned a reputation among employers in the apparel and textiles industries for their ability to think creatively and take leadership in the field. FSAD alumni design for influential fashion houses and under their own labels. Graduates also do specialized design in fields such as elite athletics, the military, and the protective clothing industry; and use their creativity in public-relations, fashion journalism and publishing, theater design, and as museum professionals.

Employers of apparel graduates include a wide range of prestigious fashion houses, fashion retailers and department stores, sportswear manufacturers, fashion accessory manufacturers, fashion journals, theaters, opera companies, and museums. Graduates of the program are also employed in business, law, and university teaching and research.

Students who pursue graduate work immediately following the undergraduate program are well prepared for advanced study in fields such as apparel design, costume or art history, business, communication arts, textile design, or theatrical costuming.

Fashion Design Management

Combining an understanding of the global apparel and textile production system with knowledge in design, business management and marketing, students are prepared for this important world industry. In the process, majors sharpen their ability to think critically, analyze information, communicate their ideas, and manage people—talents that are applicable in any business setting. This option also gives an excellent foundation for entrepreneurship.

Although all Fashion Design Management majors take the same core of management classes, they also select one of three specialized tracks: Management and Marketing, for those interested in corporate administration; Product Development, for those interested in technical apparel design or managing the design aspects of the industry; and Communications, for those with an interest in writing and thinking about fashion design through public relations,
Requirements of the Fashion Design Management Option

- Fashion Product Management
- Art, Design, and Visual Thinking
- Introductory Micro and Macro Economics
- Introduction to Business Management
- Fibers, Fabrics, and Finishes
- Structural Fabric Design
- Calculus
- Ethics/Sustainability in Business and Industry
- Introduction to Computer-Aided Design
- Oral Communication or Foreign Language
- Accounting
- Product Quality Assessment
- Style, Fashion, and the Apparel Industry
- Textiles, Apparel, and Innovation
- Global Fashion Management

One of the following:
- Fashion Theory
- Human Factors: Anthropometrics and Apparel
- Functional Aspects of Clothing and Design
- Aesthetics and Meaning in World Dress
- History of Color and Design in Textiles
- Fashion, Media and Technology

Select one of the following tracks:
Management and Marketing track (three courses from the following areas):
- Marketing and Management
- Accounting and Finance

Communications track (three courses from any of the following categories):
- Writing
- Public Relations / Negotiations
- Communications-General
- Critical Theory

Product Development track:
- Introduction to Fashion Design
- Apparel Design: Product Development

Select two from:
- Additional Design or Apparel studio courses

Curriculum

The program combines courses in apparel and textile structures and analysis, apparel design and history, business management, marketing and finance, consumer behavior, communications, economics, ethics, entrepreneurship, marketing, and public policy.

Students learn to solve problems by applying an understanding of the visual, theoretical and technical circumstances of the fashion industry to the practical situations of business management. They consider issues such as how apparel and textile designs are affected by materials, production methods, technology, supply chain management, finance, professional ethics, corporate social responsibility, consumer behavior, and the human implications of technological change.

Careers

Graduates of the Fashion Design Management program are attractive candidates for leadership positions in fashion and other industries. Alumni include industry executives, product development consultants, buyers, account managers, computer-systems designers, financial analysts, and human resource managers.

Students who go on to graduate work are well prepared for advanced programs in fields such as business administration, communications, education, law, museum studies, and marketing.

Fiber Science

Students who choose the Fiber Science option pursue the scientific study of fibrous materials, building on foundations in biology, chemistry, engineering, mathematics, and physics. Students learn how various fibers are made and how their chemical, mechanical, and physical properties are controlled. They also learn how the principles of fiber science influence the design and fabrication of traditional and innovative products, from clothing to skateboards.

Because fiber science has applications in so many areas of contemporary technology, majors can tailor their studies to meet personal academic and professional goals. They can focus on the development of new high-performance fibers for highway construction, reinforced composite materials for aircraft or sports gear, electronic circuit boards, artificial membranes, arterial grafts for medicine, and protective clothing for industry and the military. They also acquire a broad-based academic background by studying other areas of the social sciences and the humanities throughout the college and the university.

Careers

Recent graduates of the fiber science program have begun careers in the fiber and textile industries as well as with government agencies developing and evaluating new products, conducting research, providing technical services, helping to ensure product safety, and coordinating consumer information programs.

This option provides excellent preparation for advanced study in many fields, including medicine, fiber and polymer science, materials science, textile science, textile technology, engineering, and other areas of applied science. Students in the program have also gone on to business and law schools.

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Careers

The fiber science curriculum, with its strong liberal arts and natural sciences foundation is similar to, but more flexible than, a course of study in chemical engineering or materials science. With its rigorous requirement of physical science courses it can be excellent preparation for medical school with the addition of biology to the curriculum.

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internships. Summer internships are available in areas such as communications, design, and retailing, through partnerships with major corporate research centers. Most students also work with faculty members on research projects.

**Requirements of the Fiber Science Option**

- Fiber and Yarn Analysis Laboratory
- Fiber Science
- Fibers, Fabrics, and Finishes
- Fundamentals of Color and Dyeing
- Introduction to Mechanical Properties of Materials or Polymeric Materials
- Introduction to Computer Programming or Introduction to Computer-Aided Design
- Structural Fabric Design

Any three of the following:

- Biomedical Materials and Devices for Human Body Repair
- Chemistry of Textile Finishes and Dyeing
- Fiber Chemistry
- Fiber Formation: Theory and Practice
- History of Color and Design in Textiles
- Mechanics of Fibrous Assemblies
- Physical Properties of Fiber Forming
- Polymers and Fibers
- Product Quality Assessment

**Additional courses**

- Calculus
- Communications or Foreign Language
- Ethics
- Inorganic and Organic chemistry
- Introduction to Statistics
- Physics

**Special Opportunities**

Beyond formal course work, students in each option can take advantage of other educational opportunities, most of which involve working with Cornell faculty members or other professionals. Field placements, joining a faculty member’s research team, or conducting independent research can add a significant experiential component to the course of study, providing valuable practical knowledge while testing students’ academic or career interests.

**Field Experience**

Many apparel students spend a semester studying abroad in such international fashion centers as London, Paris, and Florence. Students can take part in several exchange programs in Hong Kong, Paris, and New Zealand. Apparel design majors are encouraged to gain professional experience in areas such as communications, design, manufacturing, and retailing through internships. Summer internships are easily obtained. Students have found internships with Jones Apparel Group, Cynthia Rowley, Han Feng Ltd., Polo Ralph Lauren, Donna Karan, Speedo Authentic Fitness, Banana Republic, Talbot’s, Bloomingdale’s, Vogue, Lord & Taylor, Chanel, Fairchild Publications, and the Metropolitan Opera House Costume Department among others.

Students may take course work for credit at other design schools such as Parsons New School for Design and the Fashion Institute of Technology in New York City to gain insights into specialized areas of design. Human Ecology’s Urban Semester Program offers students an opportunity to explore New York City’s cultural, business, and community settings through courses and career-related internships.

Those who want to study studio art as well as the Apparel Design option can complete a second degree (a bachelor of fine arts) in a five-year dual degree program at Cornell between FSAD and the Art Department. This option is especially appropriate for careers in fashion illustration, museum collections, or fashion graphics.

For Fashion Design Management students, fieldwork is highly valued for the experience it provides in professional work areas such as communications, design, fashion publishing, manufacturing, retailing, state and federal regulation, and textile science. Internships with high-profile fashion companies are another option. Students who want an international perspective on the industry often study in London, Paris, Italy, England, or Hong Kong.

Field experience in Fiber Science entails working closely for a semester or summer with textile-science professionals in major corporate research centers. Most students also work with faculty members on research projects.

**Selected Graduates**

**Apparel Design**

- **Advanced innovation designer**, Nike, Beaverton, Oregon
- **Assistant professor of design**, Research Program: Smart Clothing, University of Minnesota, Minneapolis, Minnesota
- **Celebrity and Hollywood Fashion Stylist**, New York, New York
- **Curatorial associate for installation, Costume Institute, Metropolitan Museum of Art**, New York, New York
- **Designer**, Polo Ralph Lauren, New York, New York
- **Designer**, Carter’s Children’s Wear, Atlanta, Georgia
- **Fashion designer**, Kate Spade, New York, New York
- **Fashion illustrator**, Eileen Fisher, New York, New York
- **Functional design trainee: Product development**, Adidas, Herzogenaurach, Germany
- **Handbag designer**, Coach Leather, New York, New York
- **Owner and designer**, Malia Mills Swimwear, New York, New York
- **Senior designer**, Patagonia, Ventura, California
- **Textile designer**, Elie Tahari, New York, New York

**Fashion Design Management**

- **Account executive**, Burberry, New York, New York
- **Assistant buyer**, American Eagle Outfitters, Pittsburgh, Pennsylvania
- **Associate curator, FIT Museum**, New York, New York
- **Design coordinator**, Lord & Taylor, New York, New York
- **Design director**, AKA Eddie Bauer, Seattle, Washington
- **Director of internet strategies**, Bloomingdales.com, New York, New York
- **Director of planning**, Roberto Cavalli, New York, New York
- **Director of merchandising and production**, Club Monaco, New York, New York
- **Director of product development**, Natori, New York, New York
- **Fashion assistant**, YM Magazine, New York, New York
- **Market analyst**, TJX, Inc., Framingham, Massachusetts

**Fiber Science**

- **Pediatrician**, Boston Medical Center, Boston, Massachusetts
- **Physical scientist**, The North Face, San Francisco, California
- **Physician**, Pulmonary and Critical Care Association, Albany, New York
- **Scientist**, BD Technologies, Research Triangle Park, Raleigh, North Carolina

**For More Information**

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