

# Technical Design BS Degree Program

<http://fitnyc.edu/techdesign>

## School of Business and Technology

Applications accepted for fall only. NYSSED: 32621 CIP: 50.0407

The major in Technical Design prepares students for entry into the apparel industry, provides a solid foundation for complex technical design competencies, deepens students' problem-solving and critical thinking abilities, and facilitates the development of professional practices, interpersonal skills, and personal abilities that equip students for advancement in the evolving garment industry. An internship is required. Curriculum below is for the entering class of fall 2022.

| Semester 5   |   | Credits |                                  |   |
|--------------|---|---------|----------------------------------|---|
| MAJOR        | TC 311 - Production Pattern Development I                                       | 2       |                                  | TC 491 - Technical Design Senior Project                  |
| AREA         | TC 321 - Computerized Pattern Development                                       | 2       | LIBERAL ARTS                     | SS 334 - The Psychology of Color                          |
| RELATED      | MG 314 - Manufacturing Process Analysis   | 2       |                                  | SS 376 - Clothing and Society                             |
| AREA         | TS 301 - Advanced Textiles for Technical Design                                 | 2.5     |                                  | choice - see Requirements*: Liberal Arts/Foreign Language |
| LIBERAL ARTS | EN 321 - Strategies of Business Communication                                   | 3       |                                  |   |
|              | MA 311 - Mathematical Modeling for Business Applications                        | 3       |                                  |   |
|              | SS 131 - General Psychology   | 3       |                                  |   |
| Semester 6   |   |         | <b>TOTAL CREDIT REQUIREMENTS</b> |   |
| MAJOR        | TC 312 - Production Pattern Development II                                      | 2       | MAJOR AREA                       | 19.5  |
| AREA         | TC 322 - Computerized Grading, Marking, and Specs                               | 3       | RELATED AREA                     | 7.5   |
|              | TC 341 - Technical Design: Wovens   | 2       | LIBERAL ARTS                     | 36  |
| LIBERAL ARTS | HA 112 - History of Western Art and Civilization: Renaissance to the Modern Era | 3       | <b>Total Credits:</b>            | <b>63</b>   |
|              | SC 147 - The Forensics of Fiber Analysis  | 3       |                                  |   |
|              | or SC 332 - Color and Light and SC 032 Color Science Laboratory                 |         |                                  |   |
|              | SS 171 - Introductory Sociology   | 3       |                                  |   |
| Semester 7   |   |         |                                  |   |
| MAJOR        | TC 421 - Computerized Pattern and Fit Corrections                               | 2       |                                  |   |
| AREA         | TC 441 - Technical Design II: Stretch   | 2       |                                  |   |
| RELATED      | IC 497 - Senior Internship: Career Planning                                     | 3       |                                  |   |
| AREA         | or TS 332 - Technical Design for Sweater Knits                                  |         |                                  |   |
| LIBERAL ARTS | HA 344 - European Fashion: Ancient Origins to Modern Styles                     | 3       |                                  |   |
|              | SS 386 - Youth Subculture, Identity, and Fashion: A Sociological Perspective    | 3       |                                  |   |
|              | choice - see Requirements*: Liberal Arts/Foreign Language                       | 3       |                                  |   |
| Semester 8   |   |         |                                  |   |
| MAJOR        | TC 451 - Production and Technical Design  | 2       |                                  |   |

**\*Fall 2022 Requirements:** See below.

### **Liberal Arts: 36 credits**

The degree includes the Fashion History, Theory and Culture minor as part of its Liberal Arts requirements. Students must declare the minor in the Academic Advisement Center to be awarded the minor along with the major. If a course from the minor has been previously taken, students may select other Liberal Arts electives.

- **History of Art: 6 credits.** HA 112 and HA 344
- **English: 3 credits.** EN 121 and any additional EN course must be completed prior to enrolling in EN 321
- **Foreign Language: 6 credits.** Two semesters of the same foreign language, one of which must meet the General Education Foreign Language requirement (G8)
- **Science: 3 credits.** SC 147 or SC 332/SC 032
- **Mathematics: 3 credits.** Mathematics Proficiency must be completed prior to enrolling in MA 311
- **Social Sciences: 15 credits.** SS 131, SS 171, SS 334, SS 376 and SS 386

**NOTE:** An ideal candidate for the Tech Design BS degree program has earned an associate's degree in either Fashion or Menswear Design from an accredited college. Interested students without a background in Fashion or Menswear Design are required to take the following bridge courses before the start of the program.

Required knowledge areas prior to program entry:

- TS 111 Fundamentals of Textiles
- FD 133 Materials and Construction I
- PM 121 Patternmaking I: Misses' and Women's Wear OR FD 243 Apparel Design Studio - Patternmaking
- TC 111 Beginning Adobe Illustrator for Technical Design

Upon graduation, students in the Technical Design BS program will achieve the following learning outcomes:

1. Develop and sew production patterns and document how the garment is to be constructed in language that is clear to the manufacture
2. Analyze the fit of a garment and document the problems in a clear and concise manner.
3. Follow a garment through pattern development, construction and fitting and create a Technical Specifications Packet (Tech Pack).
4. Measure a variety of garments: blouses, pants, skirts, jackets, dresses, intimate apparel and be familiar with different methods used to measure garments in the industry.
5. Distinguish between the properties associated with different fabric types and how these properties impact pattern development, sewing, pressing, finishing and fit.
6. Analyze a grading specifications sheet and grade basic patterns in a full size range without compromising the original design. Analyze corporate structure and describe the responsibilities of the designer, technical designer, merchandiser and contractor. Become familiar with safety regulations associated with specific garment types and customer base and develop creative solutions for mass production in accordance with safety regulations.
7. Work as a team to: (a) create clear objectives, balance people skills and abilities, (b) develop effective processes for making decisions and communicating efficiently and (c) develop leadership skills to resolve conflicts while maintaining mutual cooperation and respect for each other.
8. Use current technologies and software programs utilized in the Technical Design field with proficiency.