Technical Design BS Degree Program

http://fitnyc.edu/techdesign

School of Business and Technology

Applications accepted for fall only. NYSED: 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. Curriculum below is for the entering class of fall 2025.

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

TOTAL CREDIT REQUIREMENTS	
MAJOR AREA	18.5
RELATED AREA	7.5
LIBERAL ARTS	36
Total Credits:	**62**

Fall 2025 Requirements: See below.

Liberal Arts and Sciences Course Content Requirements
(24 AAS credits* + 36 BS credits = 60 credits total)

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
  - HA 344
- **English: 9 credits.**
  - EN 131* (or EN 121 transferred or taken prior to Fall 2024) (G1)
  - CHOICE of any 200- or 300-level EN literature or speech course*
  - EN 321
- **Foreign Language: 6 credits.**
- Two semesters of the same foreign language, one of which must meet General Education Foreign Language requirement (G8)
- **Mathematics: 6 credits.**
  - CHOICE of any MA that meets SUNY G2*
  - MA 311
- **Social Sciences: 15 credits.**
  - PY 131
  - SO 171
  - PY 334
  - SO 376
  - SO 386
- **Philosophy: 3 credits.** PL 300 (G7)
- **Science: 6-7 credits.**
  - CHOICE of any SC that meets SUNY G3*
  - SC 147 or SC 332/SC 032

Liberal Arts Elective(s): 12 credits*
Select Liberal Arts courses from the following subject areas: AB (Arabic); CH (Chinese); EN (English); EC (Economics); FI (Film and Media Studies); FR (French); HA (History of Art); HE (Health Education) HE 201, HE 301; IT (Italian); JA (Japanese); HI (History); MA (Math); MC (Modern Languages and Cultures); MU (Music); PC (Political Science); PE (Physical Education and Dance) PE 215, PE 216, PE 217; PL (Philosophy); PO (Portuguese); PY (Psychology); SC (Science); SO (Sociology); SP (Spanish); and SS (Social Sciences). See Liberal Arts Courses.

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 OR TS 110 Product Elements and Principles Laboratory
- 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

Credits from AAS will apply as appropriate

FIT's 2+2 degree structure requires an earned AAS or equivalent plus all the BS or BFA degree requirements. For more information, please see Requirements for Degree Completion.

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.
7. 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.
8. 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.
9. Use current technologies and software programs utilized in the Technical Design field with proficiency.