TC: Technical Design

TC 111 — Beginning Adobe Illustrator for Technical Design
2 credits; 4 lab hours
Students learn the fundamental basic sketching using Adobe Illustrator. Course assignments focus on creating garments using Adobe Illustrator software. Project is final portfolio of customer profile, mood board, fabric board, color board and 12 Adobe Illustrated coordinate group both fronts and backs. The basic of Illustrator is taught so students are capable of going into the Advanced Adobe Illustrator course learning technical sketching for technical packets.

TC 200 — Patternmaking and Construction for Faux Fur/Women's Wear
2 credits; 4 lab hours
Patternmaking and construction of women's garments using fake fur. Patterns of basic silhouettes and corollary pieces such as garment linings, facings, pockets, collars, and sleeves are created, and the requirements for garment construction using various types of fake furs will be covered. Students will produce a sample garment.
Prerequisite(s): PM 121.

TC 201 — Production Pattern Development For Women's Denim
2 credits; 4 lab hours
Students are introduced to denim by analyzing body and dress forms, various denim washes, shrinkage ratios, shrinkage added garments for jeans and denim jackets, and production specification measurements. By using the most current data developed by the industry for denim, the course leads students through a better understanding of the important areas of the denim, washes and body types that present a challenge when developing styles.
Prerequisite(s): PM 121 and PM 122.

TC 202 — Browzwear Computerized Pattern Corrections and 3D Avatar Fitting
2 credits; 4 lab hours
This course focuses on garment fit analysis and pattern corrections using the two major CAD programs used in the apparel industry. Students learn advanced computerized patternmaking using Gerber Accumark PDS (Pattern Design System) and 3D virtual garment fitting using Browzwear PDS. By analyzing garment fittings in the virtual environment, students experience unique aspects of the program and learn relations between fit issues and pattern corrections. Simulating 3D garment fitting from the simple top to structured jacket, soft woven to hard woven, and fitted to relaxed look, students will learn how these factors affect pattern corrections in order to retain the original look of the garment.

TC 232 — Patternmaking for Evening and Bridal Dresses
2 credits; 4 lab hours
An exploration into proportion and balance through development of garments prepared for the production process. Design integrity balanced with corrections for pattern fit is included.
Prerequisite(s): PM 121 and PM 122.

TC 311 — Production Pattern Development I
2 credits; 4 lab hours
This course focuses on the development of production-ready patterns for woven fabrics from technical specification sketches. Students analyze the effects of body measurements, pattern shapes, and production construction techniques on garment fit, quality, and performance.

TC 312 — Production Pattern Development II
2 credits; 4 lab hours
Students further develop skills learned in TC 311 through an emphasis on fit concepts and patterns for woven, knit, and lined garments. Students learn to recognize and apply pattern corrections that maintain garment balance, proportion, and design integrity.
Prerequisite(s): TC 311.

TC 321 — Computerized Pattern Development
2 credits; 1 lecture and 2 lab hours
Students learn to develop computerized flat patterns using state-of-the-art apparel industry software. Students use and incorporate the various functions in the software menus as they create, modify, store, and plot production patterns.

TC 322 — Computerized Grading, Marking, and Specs
3 credits; 1 lecture and 4 lab hours
Students learn to use a state-of-the-art apparel industry grading and marking software system to grade patterns, make markers, and manage files. Course stresses the importance held by fabric properties on the development of accurate graded specs for patterns and for marker making.
Prerequisite(s): TC 311 and TC 321.

TC 341 — Technical Design: Wovens
2 credits; 1 lecture and 2 lab hours
This course explores in depth the technical design process for woven garments. Students utilize digital imaging, industry-specific terminology, and software to create full tech packages. Through case studies and hands-on techniques, they incorporate problem-solving methods used by technical designers in the industry.
Prerequisite(s): TC 311.

TC 421 — Computerized Pattern and Fit Corrections
2 credits; 1 lecture and 2 lab hours
Students analyze garment fittings and then make corrections to computerized patterns using the more advanced features of the pattern design system. They manage the data file information and communicate complete fit and pattern technical details.
Prerequisite(s): TC 312 and TC 322 and TC 341.

TC 441 — Technical Design II: Stretch
2 credits; 1 lecture and 2 lab hours
Using industry product data management software systems, students construct full technical design packages for stretch garments. Students explore the effects of stretch on pattern shape and fit. They identify the accuracy of finished garments and communicate the revisions necessary for various sample stages.
Prerequisite(s): TC 312 and TC 322 and TC 341.

TC 451 — Production and Technical Design
2 credits; 2 lecture hours
This course stresses the relationship between technical design and the apparel production cycles and manufacturing processes. Discussions center on sourcing and logistics, apparel standards, compliance and regulations, current industry issues, and business ethics and conduct.
Prerequisite(s): TC 322 and TC 341 and MG 314.

TC 491 — Technical Design Senior Project
2.5 credits; 1 lecture and 3 lab hours
Student teams strategize on how to improve the market share for a specific product or brand. Each team develops innovative technical design solutions for various product life cycle stages. They present their actual products and a written review/case study subject to critical industry evaluation.
Prerequisite(s): TC 421 and TC 441.