

TT: Textile Technology (See also TS)

TT 000 — TEXTILE TECHNOLOGY

1-3 credit; 1 lab hour

TT 055 — Total Quality Management for Textile Products Laboratory

1.5 credits; 3 lab hours

This lab experience accompanies TT 455 and applies the concepts addressed in this course. Fabric testing is completed utilizing methodologies approved by relevant national associations and addresses why failures occur and how they can be corrected.

Prerequisite(s): TS 015/TS 155 or TS 111 or TS 122 or TS 132 or approval of chairperson

Corequisite(s): TT 455.

TT 100 — SEMINAR:NY/AMS DENIM BUS PRACT

0 credits

TT 174 — Fabric Development

3 credits; 2 lecture and 2 lab hours

This course provides a comprehensive study of the composition and functions of knit and woven fabrics used in the apparel and finished textile industries. Knowledge of structural and performance characteristics for knit and woven fabrics is acquired through examination of market samples, and the creation of swatches on hand looms and knitting machines.

Prerequisite(s): TS 015/TS 115 or TS 111 or TS 122 or TS 132 or approval of chairperson.

TT 201 — Fabrics for Private Label/ Vertical Retailer

3 credits; 2 lecture and 2 lab hours

This course examines the profitability, serviceability, and produceability of textile products, and their ability to satisfy a target market. Students take on the role of a merchandising adoption committee member, accepting or rejecting fabric and/ or finished textile products.

Prerequisite(s): TS 111, or TS 015/TS 115, or TS 122 or TS 132 or approval of chairperson.

TT 202 — Textile Value Chain Marketing: Concept to Consumer

3 credits; 3 lecture hours

This course introduces students to the principles and practices of implementing a successful and sustainable textile value chain and to build students' understanding of key issues to address in marketing management and marketing strategy, and sourcing.

Prerequisite(s): TS 111 or TS 132 or TS 015/TS 115 or TS 122.

TT 203 — Yarn Formation: Fundamentals and Industry Applications

3 credits; 2 lecture and 2 lab hours

This course teaches the fundamental principles of short staple, long staple and filament yarn formation: the objectives and importance of opening, cleaning, blending, mixing, combing, drafting, and twisting of yarn. Quality and costing parameters that affect aesthetics, evenness and performance are studied. Emphasis is placed on the practical application of technical and novelty yarns in current markets. In the laboratory portion of this course, students analyze, determine and document physical properties of yarn using industry-standard techniques and communication practices.

Prerequisite(s): TS 111 or TS 131 or TS 015 and TS 115.

TT 247 — Color Creation and Sustainable Applications

3 credits; 2 lecture and 2 lab hours

Students learn to utilize specialized color matching and formulation software for shade matching. They learn to source colorants while working with data provided by colorant producers, and compare traditional and low-impact Ecuadorian dyestuffs.

TT 261 — Performance Textiles

3 credits; 2 lecture and 2 lab hours

This course provides students with a broad overview of performance textiles and their varied applications. The fundamental principles of performance textiles and functional finishes are introduced, and the latest developments and relevant technologies are emphasized. Sustainability and emerging regulatory issues are also discussed.

Prerequisite(s): TS 111 or TS 132 or TS 015 or TS 115 or TS 122 or approval of chairperson.

TT 275 — Textile Marketing

3 credits; 3 lecture hours

Studies the textile industry and how its various products are marketed. Case studies involving both fiber producers and textile mills are analyzed. Students examine both the domestic and international textile marketplaces.

TT 276 — Fabrics for Interiors

2 credits; 2 lecture hours

This course introduces students to the market segments and fabrication methods of textile products designed for use in residential and commercial interiors.

TT 299 — Independent Study in Textile Development and Marketing

1-3 credit

Prerequisite(s): a minimum 3.5 GPA and approval of instructor, chairperson, and dean for Business and Technology.

TT 313 — Textile Fibers

3 credits; 2 lecture and 2 lab hours

Studies the role of textile fibers in the design, styling, and marketing of textile products. Aesthetics, performance, and cost/price relationships are emphasized.

Prerequisite(s): TS 111 or TS 015/TS 115 or TS 122 or TS 132 or approval of chairperson.

TT 327 — Woven Product Development I

2.5 credits; 1 lecture and 3 lab hours

This course introduces students to the essentials of manufacturing, specifying, and styling woven textiles. Emphasis is placed on fabric formation principles, and the practical application of woven structures in apparel and home textile markets.

Prerequisite(s): TS 111 or TS 132 or TS 131 or TS 122 or TS 115/TS 015 or TS 114/TS 214.

TT 328 — Woven Product Development II

2.5 credits; 1 lecture and 3 lab hours

This course introduces students to the advanced technical principles of woven fabric production. They analyze, identify, and document a wide range of increasingly complex woven fabric structures using industry-standard techniques and technical software. In laboratory sessions, students develop advanced woven structures for both powerloom, and multi-shaft dobby handlooms.

Prerequisite(s): TT 327.

TT 342 — Dyeing and Color Technology

3 credits; 2 lecture and 2 lab hours

Studies the enhancement of textile products through the application of color. Primary emphasis is on commercial textile dyeing and its relationship to fashion colors, application procedures, quality, and marketing principles.

Prerequisite(s): TS 015/115 or TS 111 or TS 122 or TS 132 or approval of chairperson.

TT 343 — Textile Coloration: Principles and Processes

3 credits; 2 lecture and 2 lab hours

This course emphasizes methods for preparation of fabrics prior to coloration, coloration auxiliaries, dye classification and sourcing, coloration theory, coloration of natural and manufactured textiles, modern coloration processes and equipment, color formulation, measurement and matching and sustainable textile coloration. The laboratory part of this course reinforces concepts discussed in lectures.

Prerequisite(s): TS 111, TS 122, TS 132, or TS 015/TS 115 or approval of chair.

TT 362 — Textile Finishing - Principles, Practices and Advancements

2 credits; 1 lecture and 2 lab hours

This course provides students with a comprehensive study of the principles and practices of textile finishing technologies, allowing them to evaluate the functionalities and principles of finishes applied to textiles. Both conventional and emerging technologies are discussed. Sustainable textile finishing including regulatory and social compliance are also emphasized. Prerequisite(s): TS 111 or TS 132 or TS 015 or TS 115 or TS 122 or approval of department chairperson.

TT 381 — Knit Product Development I

2.5 credits; 1 lecture and 3 lab hours

This course presents students with basic technical principles of weft and warp knit structures, including the relationships between stitch formation, fabric construction, yarn selection, and knitting machinery. Parameters that affect aesthetics, performance and cost are studied. Emphasis is placed on the practical application of knitted structures in current markets.

Prerequisite(s): TS 111 or TS 132 or TS 015/TS 115 or TS 122 or approval of chairperson.

TT 382 — Knit Product Development II

2.5 credits; 1 lecture and 3 lab hours

This course presents students with advanced technical principles of weft and warp knit structures, including the relationships between stitch formation, fabric construction, yarn selection, and knitting machinery. Parameters that affect aesthetics, performance and cost are studied. Emphasis is placed on the practical application of knitted structures in current markets.

Prerequisite(s): TT 381.

TT 455 — Total Quality Management for Textile Products

1 credit; 1 lecture hour

This course examines the processes required in implementing a TQM plan in a global environment. It addresses the major factors relating to customer satisfaction, including fit and functionality, and the ways in which quality managers interact within the TQM process.

Prerequisite(s): TS 015/TS 115 or TS 111 or TS 122 or TS 132 or approval of chairperson

Co-requisite(s): TT 055.

TT 456 — Nonwovens and Performance Textiles

3 credits; 2 lecture and 2 lab hours

This course provides students with a broad overview of nonwovens and performance textiles and their varied applications. The fundamental principles of nonwovens and performance textiles are introduced along with the latest developments and relevant technologies. Sustainability and emerging regulatory issues are emphasized.

Prerequisite(s): TS 110 or TS 111 or TS 131 or TS 015 and TS 115 or approval of chairperson.

TT 471 — Technology and Marketing of Printed Textiles

2 credits; 2 lecture hours

Students study the marketing practices as well as the technical considerations of commercially accepted print processes and products. Color palettes, design repeat limitations, and marketing strategies for end-use applications in the apparel and home furnishings industries are emphasized.

Prerequisite(s): TS 015/TS 115 or TS 111 or TS 122 or TS 132 or approval of chairperson.

TT 476 — Textile Project Development

3 credits; 3 lecture hours

Provides students with a realistic view of the production of a commercially marketable fabric line. Understanding of artistic inspiration, timing, manufacturing, and costing decisions are necessary for successful completion of the final project.

Prerequisite(s): TT 342 and TT 477.

TT 477 — Textile Converting and Costing

3 credits; 2 lecture and 2 lab hours

Studies the principles and practices in purchasing yarn and greige goods for conversion to fashion fabrics. Domestic and global sourcing systems as well as costing procedures are examined.

Prerequisite(s): TT 328 and TT 382.

TT 478 — Presentation and e-Portfolio

1 credit; 2 lab hours

Students are exposed to various techniques for developing digital assets and assembling them into an electronic portfolio. Emphasis is placed on organization, critical thinking, and presentation skills. For their final project, students produce and present an e-portfolio that showcases their textile development and marketing skills.

TT 499 — Independent Study in Textile Development and Marketing

1-3 credit

Prerequisite(s): a minimum 3.5 GPA and approval of instructor, chairperson, and dean for Business and Technology.