

MG: Production Management: Fashion and Related Industries

MG 108 — Apparel and Home Textile Products Manufacturing

2 credits; 1 lecture and 2 lab hours

For Textile Development and Marketing students. Surveys manufacturing processes for apparel and home textile products beginning with product development to acquisition of fabrics through cutting, sewing, and finishing operations.

MG 114 — Principles of Product Construction

3 credits; 2 lecture and 2 lab hours

Emphasizes the relationship between the quality and construction of a sewn product and focuses on the geometric principles of draping, drafting, and grading of industrial patterns. Students develop and interpret original patterns using both manual and computerized methods and apply the data to written specifications.

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

MG 132 — Marketing for Manufacturers

3 credits; 3 lecture hours

Students are introduced to the basic concept of marketing and the components of the marketing mix in order to understand how fashion products are developed and successfully distributed.

Computer-assisted marketing, including barcoding, e-commerce, and the role of the internet, is investigated as a strategic tool for globalization.

MG 153 — Excel for Business

2 credits; 1 lecture and 2 lab hours

This course provides a comprehensive presentation of Microsoft Excel. Topics include charting, data tables, financial functions, formatting, formulas, functions, what-if analysis, working with large worksheets, and other business-related topics.

MG 234 — Supply Chain Management

3 credits; 3 lecture hours

A thorough exploration of supply chain management from the manufacturer's perspective is presented. Major areas of global sourcing, vendor evaluation, quality assurance, materials resource planning, inventory control, and budget considerations are covered. Students develop a seasonal production plan as a final project.

Prerequisite(s): MG 132.

MG 242 — Principles of Accounting

3 credits; 3 lecture hours

This introductory course covers the accounting cycle leading to the creation of a business' financial statements. Topics include double-entry accounting, adjusting and closing entries, trial balances, inventories, bank reconciliation, specialized journals, accounts receivable, bad debts, and depreciation. Partnership and corporation accounting are also covered.

MG 252 — Product Data Management

3 credits; 2 lecture and 2 lab hours

This course offers a hands-on approach to learning how to generate, transmit, and manage product data in a global business environment. Students construct product document packages for use in engineering, finance, logistics, manufacturing, and quality control.

Prerequisite(s): MG 153 and MG 253.

MG 253 — Object-Oriented Database Management

2 credits; 1 lecture and 2 lab hours

Concepts of database management, including the development of object-oriented databases with Adobe Illustrator and Photoshop, are taught in this course. Integrating Microsoft Access with other programs within a microcomputer environment enables students to create data sets and reports, develop forms, and link databases.

Prerequisite(s): MG 153 or AC 161 or equivalent.

MG 299 — Independent Study in Production Management: Fashion and Related Industries

1-3 credit

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

MG 301 — Apparel Production: Labor Analysis

2 credits; 2 lecture hours

For baccalaureate-level Fashion Design students. Study of apparel mass-production techniques. Examines the transition of apparel products from designer's samples to finished production merchandise. Explores human resource management and labor relations in an apparel firm.

MG 304 — Information Systems

2 credits; 1 lecture and 2 lab hours

This course presents an overview of management information systems (MIS) and how they impact the productivity and processes of a business organization. Case studies and problems focus on the issues of finances, human resources, organization, and technology as they relate to information systems.

Prerequisite(s): MG 153 or AC 161 or equivalent.

MG 305 — Production Processes for Merchandisers

3 credits; 2 lecture and 2 lab hours

For baccalaureate-level Fashion Business Management students. This course introduces students to the processes and procedures used in the manufacturing of sewn products. Students learn about the types of equipment used, the specifications required to produce such products, and the methods for evaluating their construction, cost, and quality. The course is primarily designed for students without any background in the assembly and manufacturing processes.

MG 306 — Information Systems: Case Analysis

2 credits; 1 lecture and 2 lab hours

Principles of management information systems (MIS) are addressed. Students use database and spreadsheet tools (Access and Excel) to problem-solve business situations and present their solutions in PowerPoint. Topics include the business functions of human resources, marketing and sales, finance and accounting, manufacturing, and technology support.

Prerequisite(s): MG 153 or AC 161 or equivalent.

MG 311 — Manufacturing I: Equipment Analysis

3 credits; 2 lecture and 2 lab hours

Students develop a familiarity with the various kinds of assembly equipment used to construct sewn products. Stitchology, specifications development, and sourcing are also covered.

MG 312 — Manufacturing II: Process Analysis

3 credits; 2 lecture and 2 lab hours

This course presents the principles of workplace engineering in order to identify labor- and cost-saving methods. Students conduct time and motion studies, consider standardization procedures, and analyze garment assembly methods as factors in realizing efficiencies on the manufacturing floor.

Prerequisite(s): MG 114 and MG 311.

MG 313 — Cutting Room Processes

3 credits; 2 lecture and 2 lab hours

The processes involved in the pre-production operations of sewn products--cut order planning, fabric utilization, marker making, fabric spreading, cutting, and costing--are studied. The fundamentals of laying out a cutting room and selecting equipment for specific applications are included. Students prepare markers by hand and computer.

Prerequisite(s): MG 114.

MG 314 — Manufacturing Process Analysis

2 credits; 1 lecture and 2 lab hours

This course familiarizes students with the variety of equipment used to construct sewn products. Through hands-on use, students learn to select appropriate machinery and stitching types for various fabrications, garment categories, and end uses.

MG 401 — Manufacturing Management

2 credits; 2 lecture hours

For baccalaureate-level Fashion Design students. Examines business ownership and management, fashion manufacturer marketing philosophies, costing, and quality control. The financial aspects of a business are evaluated.

MG 403 — Apparel Manufacturing Processes

3 credits; 3 lecture hours

For students not majoring in Production Management: Fashion and Related Industries. Examines the organization of a manufacturing firm: analysis of production techniques, cost development, and quality management; exploration of the relationship between product specifications and manufacturers' selling prices; and the study of customers' product requirements and the manufacturers' strategies for meeting them.

MG 411 — Manufacturing Facilities Management

3 credits; 2 lecture and 2 lab hours

Students examine the criteria for designing and arranging the elements of a manufacturing facility with emphasis on modifying existing space, handling complementary products, and understanding workflow and the effect on quality and cost. They design and develop a detailed manufacturing facility layout.

Prerequisite(s): MG 312 and MG 313.

MG 432 — Strategy, Policy, and Decision Making

3 credits; 3 lecture hours

This capstone course presents students with the opportunity to synthesize knowledge gained in previous semesters and prepare a complete business plan for a manufacturing company. They develop human resource policies, organization charts, and manufacturing, financial, marketing, and merchandising plans.

Prerequisite(s): MG 411 and MG 442.

MG 442 — Product Costing

3 credits; 3 lecture hours

Cost-accounting and industrial engineering concepts are applied to estimating, accumulating, and assigning costs to products that are mass-produced by apparel and apparel-related companies. Students learn cost-estimating techniques, practical methods to capture actual costs, and how to do variance analysis of actual and cost-estimated standards.

Prerequisite(s): MG 242, MG 312, and MG 313.

MG 499 — Independent Study in Production Management: Fashion and Related Industries

1-3 credit

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