4900-4910. Special Problems in Mechanical and Energy Engineering. 1–3 hours each. Individual instruction in theoretical, experimental or research problems. Prerequisite(s): consent of instructor. May be repeated for 6 credit hours, but a maximum of 3 credit hours from 4900-4910 apply to major.

4920. Cooperative Education in Mechanical and Energy Engineering. 3 hours. (0;0;3) Supervised field work in a job directly related to the student's major, professional field of study or career objectives. Summary report required. May be repeated for credit.

4951. Honors College Capstone Thesis. 3 hours. Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis. Prerequisite(s): completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College. May be substituted for HNRS 4000.

Mechanical Engineering Technology

see Engineering Technology

Merchandising and Hospitality Management

Merchandising and Hospitality Management, SMHM

Courses numbered 4900-4910 are open to advanced undergraduate students who are capable of developing a problem independently. A project is chosen by the student and instructor, and developed through conferences and approved activities under the direction of the instructor, who may require a term paper. Not open to graduate students, these courses are scheduled only when other required courses are unavailable. Prerequisite: consent of instructor and approval of the dean.

1420. Food Sanitation. 1 hour. An introduction to food service sanitation, providing training in the regulations and procedures necessary to prevent food poisoning and foodborne diseases in a food service environment.

1450 (HECO 1322). Principles of Nutrition. 3 hours. An introduction to the scientific fundamentals of human nutrition as they relate to health. Prevention of illnesses such as cancer, heart disease, osteoporosis, gastrointestinal disorders and obesity is discussed. A healthful diet and lifestyle are emphasized to enhance long-term wellness. Food and nutrition controversies are critically evaluated. Satisfies a portion of the Understanding the Human Community requirement of the University Core Curriculum.

1470. Introduction to Professional Food Preparation. 3 hours. (2;3) A laboratory-based course designed to familiarize students with professional food preparation principles and techniques. Uniforms required. Prerequisite(s): SMHM 1420 (may be taken concurrently).

1500. Orientation to the Hospitality Industry. 2 hours. A course designed to survey the hotel, restaurant, club and food service industries, including history, scope, organization and career opportunities.

1650. Apparel Evaluation. 3 hours. (2;2) Analysis of quality issues relative to developing and producing ready-to-wear apparel. Concepts include apparel components, silhouettes, piece good selection, sizing, and costing. Includes application of software package.

2090. Introduction to Electronic Merchandising. 3 hours. Survey of electronic merchandising and its application to consumer products and services for business to business and business to consumer. Introduction to electronic merchandising theory, terminology, resources, industry participants and career opportunities.

2280. Hospitality Industry Financial Accounting. 3 hours. Application of financial accounting principles to the hospitality industry: Uniform System of Accounts for restaurants, hotels, and clubs; completion of the accounting cycle for hospitality operations; transactions related to payroll, inventories, receivables, and payables for the hospitality industry. Prerequisite(s): open to hospitality management majors only.

2360. Aesthetics and Environment. 3 hours. (2;2) Introduction to elements and principles of visual merchandising, costume and furnishings from ancient cultures; aesthetic and functional consideration in material selection, and introduction of merchandising portfolio.

2380. AutoCAD for Interiors. 3 hours. (2;4) Application of computer-aided design, drafting and dimensioning to interior-built spaces in an AutoCAD environment. Prerequisite(s): ADES 2630 and 2640.

2400. Introduction to the Furniture Industry. 3 hours. Overview of the furniture and home furnishings industry. Topics include product development, manufacturing, distribution and merchandising of these products. Introduction to industry terminology, resources and career opportunities.

2460. Introduction to Nutrition Science. 3 hours. (3;2) Introduction to the relationship between nourishment, lifestyle choices and long-term health. Topics include classes, sources and functions of nutrients and their digestion, absorption and metabolism. Investigation of eating patterns using database technology demonstrates the relationship between food consumption and nutrition adequacy. The economic, cultural and psychological implications of food choices and eating behaviors are studied. Satisfies a portion of the Natural Sciences requirement of the University Core Curriculum.

2480. Hospitality Industry Managerial Accounting. 3 hours. Comprehensive application of accounting principles to the hospitality industry. Managerial accounting approach to accounting practices, financial statements and operating activities. Problem-solving methods applied to managerial decisions for the hospitality industry. Prerequisite(s): SMHM 2280.

2490. Introduction to Apparel Merchandising. 3 hours. Survey of the apparel industry including development, merchandising and distribution. Introduction to apparel terminology, resources, industry participants and career opportunities.

- 2550. Restaurant Operations I. 3 hours. (2;5) A laboratory-based course designed to familiarize students with dining room service systems encompassing American, French, Russian, banquet and beverage service. Students apply organizational and management skills in the actual operation of a restaurant facility, the Club at Gateway Center. Uniforms required. Prerequisite(s): SMHM 1420 (may be taken concurrently).
- **2650. Textiles for Apparel.** 3 hours. Fibers, fabric, construction and finishes applied to selection, use and care of apparel fabrics.
- **2655. Textiles for Home Furnishings.** 3 hours. Fibers, fabric, construction and finishes applied to selection, use and care of home furnishings fabrics.
- 2750. Consumers in a Global Market. 3 hours. Crosscultural comparisons using systems, human needs, and consumer behavior frameworks are integrated with critical and creative thinking processes to develop a global perspective that is sensitive to diverse consumers' needs and preferences for products and services in a global market. Satisfies a portion of the Understanding the Human Community requirement of the University Core Curriculum.
- **2800.** Foundations of International Travel and Tourism. 3 hours. Travel and tourism examined from global, industry and developmental perspectives. Topics include historical, contemporary and future effects of travel and tourism as related to social, economic, cultural and environmental issues.
- **3200.** Hospitality Industry Law. 3 hours. Study of business-related torts and contracts, real and personal property, with an emphasis on hotels, restaurants, resorts and associated businesses. Includes duties of innkeepers and food and beverage liability. Prerequisite(s): junior standing.
- **3240. Special Event Management.** 3 hours. Analysis of the factors to be considered in the successful management of corporate and association meetings, conferences, conventions and special events. Topics include special event planning, budgeting, marketing, arrangements, international considerations and ethics.
- **3260. Resort and Club Management.** 3 hours. Introduction to managing resorts and private clubs. Emphasis on needs assessment, planning and development, marketing, hiring, staff evaluation and management, legal issues, and financial management. Prerequisite(s): junior standing or consent of instructor.
- **3300.** Hospitality Industry Marketing and Sales. 3 hours. Application of marketing principles, methods and techniques to the hospitality service product. Analysis of principles of guest behavior, market research, promotion and marketing strategies. Function of convention and meeting sales related to lodging and tourism operations. Application of menu engineering techniques. Prerequisite(s): junior standing.
- **3350. Historic and Contemporary Styles of Apparel.** 3 hours. Survey of costume from the 16th century to the present. Emphasis on technological, cultural and social influences on historic and contemporary styles.
- **3355. Historic and Contemporary Styles of Home Furnishings.** 3 hours. Survey of furnishings in the built environment from the 16th century to the present. Emphasis on technological, cultural and social influences on historic and contemporary styles.

- **3370. Fashion Theory and Trend Analysis.** 3 hours. Theoretical frameworks are examined and used to interpret the meanings of dress in cultural patterns, social organizations, social interactions and personal identities. Current fashion trends are analyzed and interpreted through the study of popular culture and everyday life.
- **3380. Global Home Furnishings Industry.** 3 hours. Emphasis on international issues and factors affecting design, sourcing, production, wholesaling and retailing of home furnishings. Prerequisite(s): SMHM 2400 or consent of instructor.
- **3405.** Drawing and Planning for Home Furnishings. 3 hours. (2;2) Development of basic drawing and drafting skills. Emphasis on incorporating hand drafting techniques specific to the planning of cabinetry/fixture placement and home furnishings arrangements. Prerequisite(s): SMHM 2360 and 2400 (may be taken concurrently).
- **3410.** CAD for Home Furnishings. 3 hours. (2;2) Concentration on CAD applications in the planning of home environments, including kitchen and other work zone areas. Focus on planning criteria for these spaces addressing function, aesthetics and economics. Prerequisite(s): SMHM 2360, 2400 and 3405 or consent of instructor.
- **3450. Presentation Techniques.** 3 hours. (2;3) Development and improvement of professional presentation skills through planning, presenting and evaluating presentations. Refinement of written and oral communication techniques needed by professionals. Prerequisite(s): advanced standing. Satisfies a portion of the Understanding the Human Community requirement of the University Core Curriculum.
- **3510. Merchandising Problems.** 3 hours. (3;1) Techniques of merchandise planning and control, markup, turn-over, pricing, markdowns and open-to-buy. Prerequisite(s): ACCT 2010 and MATH 1190 or 1400.
- **3570. Decorative Accessories Merchandising.** 3 hours. Overview of decorative accessories in historical contexts and in current industry applications. Examination of production and merchandising of products including giftware, lighting, home accents, rugs, accent furniture, softgoods and tabletop.
- **3600.** Management of Human Resources in the Hospitality Industry. 3 hours. Effective management of human resources in the hospitality industry. Application of human resource management techniques to hotels, restaurants and other hospitality workplaces in planning, recruitment, selection, training, performance management, coaching, counseling and discipline, delegation and decision-making. Prerequisite(s): junior standing.
- **3650. Advanced Textiles.** 3 hours. (2;2) Evaluate aesthetic, durability, comfort, care, and safety problems associated with consumer textile products. Use AATCC and ASTM standards and procedures, basic research methods, technical and consumer literature, and computer applications to prepare a comprehensive textile product evaluation report. Prerequisite(s): SMHM 2650 (may not be taken concurrently).
- **3700. Hotel Operations.** 3 hours. (3;1) Detailed study of different departments within hotel properties. Emphasis on front office, food and beverage, housekeeping, engineering, security, sales and marketing and accounting. Prerequisite(s): SMHM 1500.

- 3750. Consumer Studies in Apparel and Home Furnishings. 3 hours. Exploration of motivations influencing consumer purchase and use of apparel and home furnishing products. A comprehensive theoretical and practical knowledge base is used to investigate various individual and environmental factors as they relate to the consumer purchase process and its outcomes.
- 3790. Pre-Internship Seminar in Merchandising and Hospitality Management. 3 hours. Examines the impact of business environments on personal and career effectiveness in the merchandising and hospitality management fields. Topics include effective business communication, ethical decision making and leadership development. Prerequisite(s): SMHM 1500, 2090, 2400, or 2490 (may be taken concurrently); major in merchandising or hospitality management; and active UNT computer account.
- **3850. Promotion of Apparel and Home Furnishings.** 3 hours. Promotion of apparel and home furnishings throughout production and distribution systems. Emphasis on promotion media, special events and computer applications.
- **3920.** Recent Developments in the Hospitality Industry. 3 hours. An extensive study of current developments facing employers in the hospitality industry. Particular emphasis is given to selected readings and case studies dealing with societal, consumer and operational management issues and trends. Supported in part by Ben E. Keith Lectureship Series. Prerequisite(s): junior standing or consent of instructor.
- **3950.** Creating Consumer Experiences. 3 hours. Exploration of the dynamic merging of retail merchandising, hospitality, and entertainment industries to create total consumer experiences. Topics include evolution of consumption, symbolic consumption, ritual consumption, sensory consumption, consumer efficiency; entertainment, thematic, lifestyle and value experiences; branding, brand extension and strategic alliance; and global experiential retailing.
- 4000. Merchandising and Hospitality Management Study Tour. 1–3 hours. Experience fashion, home furnishings, and hospitality industries through visits to manufacturing facilities, retail establishments, museums, historical structures, hotels, restaurants and industry support organizations. Includes field study in industry centers for fashion (New York), home furnishings (High Point, N.C.), hospitality (Las Vegas), or other selected destinations. Pre-trip and post-trip classes required. Prerequisite(s): SMHM 1500, 2090, 2400 or 2490, approval of application, good standing and consent of school. Credit varies depending upon length of field study and destination. No more than 3 hours of field study may be used to fulfill degree requirements.
- **4010. Global Textiles and Apparel Industries.** 3 hours. Overview of textile and apparel industries with emphasis on international issues and factors affecting processes from the production through distribution of textiles and apparel. Prerequisite(s): SMHM 2090 or 2490 or consent of instructor.
- **4020.** E-Passport: Virtual Study Abroad. 3 hours. Parallel experiences are provided for resident (e-passport) and study abroad students (passport) who participate in SMHM's study abroad experiences. Collaborative cultural immersion is experienced through authentic experiences, online and personal interactions, and appropriate assignments. Prerequisite(s): SMHM 2090, 2400, 2490; or consent of instructor.

- **4040. Visual Merchandising.** 3 hours. (2;2) Study and application of display principles as related to visual merchandising. Development of individualized plans for store set-up and plan-o-grams. Prerequisite(s): SMHM 2360; and SMHM 2090, 2400 or 2490.
- **4080. Merchandising Ventures.** 3 hours. Exploration of the merchandisers' role in establishing new ventures with fashion and home furnishings products. Includes non-traditional merchandising formats. Prerequisite(s): SMHM 2090, 2400 or 2490, 3510, 3850, ACCT 2010 and major in merchandising, home furnishings merchandising, or e-merchandising.
- **4090. Virtual Merchandising.** 3 hours. (2;2) Study and application of visual merchandising in a virtual format. Emphasis on merchandising processes that convey product characteristics to the consumer from production through distribution. Development of web site using computer software. Prerequisite(s): SMHM 2090, 2400 or 2490, 2360 and major in merchandising, home furnishings merchandising, or e-merchandising.
- **4210.** Hospitality Cost Controls. 3 hours. Study of the food, beverage and labor cost control systems used in the hospitality industry. Emphasis is on the use of control systems for managerial planning, analysis and evaluation. Includes the concept and terminology of costs; departmental income and expense statements; budgets; purchasing, receiving and inventory systems. Prerequisite(s): SMHM 2280 and 2480, and junior standing.
- **4250. Restaurant Operations II.** 3 hours. (2;6) A laboratory-based course designed to provide students with an understanding of food production principles and techniques. Students apply organizational and management skills in the actual operation of a restaurant facility, the Club at Gateway Center. Uniforms required. Prerequisite(s): SMHM 1420, 1470, 2280, 2480, 2550, 4210, and junior standing. Students must apply one term/semester in advance and pass departmental screening.
- **4300. Survey of Beverages in the Hospitality Industry.** 3 hours. A study of social beverages commonly used in the hospitality industry. Primary emphasis is on history, language, product identification and production and merchandising techniques for wines, beers, distilled spirits and non-alcoholic beverages. Prerequisite(s): student must be 21 years of age or older.
- **4400.** Estimating for Home Furnishings. 3 hours. (2;2) Practical aspects of home furnishings and interior treatments; professional practices in home furnishings merchandising. Prerequisite(s): SMHM 2360, 2400, 3405, 3410 and consent of instructor.
- **4480.** Hospitality Industry Finance. 3 hours. Comprehensive application of financial management for the hospitality industry. Managerial finance approach to ratio analysis, risk and value, timing and value of cash flows, project valuation, capital expenditures, financial markets and income taxes. Problem-solving methods applied to managerial decisions for the hospitality industry. Prerequisite(s): SMHM 2280 and 2480 and junior standing.

4500. Internship in Merchandising and Hospitality **Management.** 1–6 hours. Supervised work experience in business, agencies or institutions as related to major field. Each semester hour credit requires a minimum of 50 hours of work experience. Course requirements include Internetbased assignments, educational activities and scheduled lecture times on campus. A student may not enroll in more than three additional classes during either long term/ semester (fall/spring) or in more than one additional class during each summer term when completing the internship. Prerequisite(s): hospitality management – major in the School of Merchandising and Hospitality Management with advanced standing, minimum overall GPA of 2.0, active UNT computer account, and consent of instructor; merchandising - major in the School of Merchandising and Hospitality Management with senior standing, completion of required SMHM courses in core (SMHM 3450 and 4750) and area(s) of specialization with a grade of C or better, minimum overall GPA of 2.0, minimum GPA of 2.25 in major, active UNT computer account, and consent of instructor. All students must attend a pre-internship orientation the semester prior to enrolling in SMHM 4500.

4660. Advanced Merchandising Applications. 3 hours. Capstone course requiring students to apply merchandising theory, principles and practices to solve industry case studies. Emphasis on problem solving, case analysis, creative thinking, fact finding, data analysis and data interpretation. Prerequisite(s): SMHM 2090, 2400 or 2490, 3510, 3850 and major in merchandising, home furnishings merchandising, or e-merchandising, advanced standing in the major, or consent of school.

4730. Hospitality Management Systems. 3 hours. (2;1) In-depth analysis of the systems approach to marketing management in the hospitality industry. Students utilize computer simulations to gain an understanding of hotel operations and menu engineering principles. An overall understanding of quality management is emphasized. Prerequisite(s): SMHM 2280, 2480, 3700 and 4210, and junior standing.

4750. Managing a Diverse Work Force. 3 hours. Exploration of current issues affecting management of a global work force. Managing a diverse workforce requires working effectively with people who vary by nationality, ethnicity, culture, religion, gender, language, age, abilities and unique personal characteristics. Prerequisite(s): senior standing; to be taken during last year of course work. Satisfies a portion of the Understanding the Human Community requirement of the University Core Curriculum.

4790. Internship in Merchandising and Hospitality Management. 1-3 hours. Supervised work experience in business, agencies or institutions as related to major field. Each semester credit requires a minimum of 100 hours of work experience. Course requirements include Internetbased assignments, experiential activities and scheduled lecture times on campus. A student may not enroll in more than three additional classes during either long term/ semester (fall/spring) or in more than one additional class during each summer term when completing the internship. Prerequisite(s) - hospitality management students: major in the School of Merchandising and Hospitality Management with advanced standing, minimum overall GPA of 2.25, active UNT computer account, and consent of instructor; hospitality management students must complete 300 documented work hours in the hospitality industry prior to enrolling in SMHM 4790. Prerequisite(s) – merchandising students: major in the School of Merchandising and

Hospitality Management with advanced standing in major, SMHM 1650, 2360, 2650, 3510, 3750, 3850, 4010, plus 15 additional hours in major with a grade of C or better, minimum overall GPA of 2.25, active UNT computer account, and consent of instructor.

4800. Discovery: Research in Merchandising and Hospitality Management. 3 hours. Introduction to research methods for scientific inquiries in the fields of merchandising and hospitality management. May include individual or collaborative investigation of selected topics relevant to the field of study. Prerequisite(s): advanced standing in the major; GPA of 2.75; merchandising, e-merchandising, home furnishings merchandising, or hospitality management major or consent of instructor.

4820. Facilities Planning, Equipment, Layout and Design. 3 hours. (2;2) Principles of hotel and restaurant property management and facilities layout and design, emphasizing equipment selection, space allocation, guest and production/ service traffic flow patterns and facility operations management. Prerequisite(s): SMHM 4250 (may be taken concurrently).

4850. Brand Development. 3 hours. Students plan, develop and present a merchandise group for private label apparel or home furnishings goods using a multi-functional team approach. Includes application of computer software. Prerequisite(s): SMHM 1650 or 3570; SMHM 2090, 2400 or 2490; SMHM 2360; major in merchandising, home furnishings merchandising, or e-merchandising; advanced standing in major; or consent of school.

4860. Hospitality Business Strategies. 3 hours. Comprehensive study, strategic management, leadership and analysis of the hospitality manager's role in operating a successful hospitality operation including specialized computer applications and human relations skills. Capstone course for the hospitality management degree program. Prerequisite(s): SMHM 1420, 1450, 1470, 1500, 2280, 2480, 2550, 2800, 3200, 3260, 3300, 3600, 3700, 3790, 4210, 4250, 4480, 4730, 4750, 4820 and MGMT 3720. SMHM 4250, 4480, 4730, 4750 and 4820 may be taken concurrently.

4900-4910. Special Problems. 1-3 hours each.

4951. Honors College Capstone Thesis. 3 hours. Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis. Prerequisite(s): completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College. May be substituted for HNRS 4000.

Middle School Education

see Teacher Education and Administration