

586-v Geology Problems. (Credit variable) Independent research under the supervision of an instructor. A formal report will be submitted to the instructor. A student may not count more than 6 hours of problems toward a degree.

GERMAN (GERM)

101-4 Beginning German. (3-2) (TCCNS = GERM 1411) Instruction and practice in understanding and speaking the German language with stress on sentence structure, inflections, vocabulary, and pronunciation. Lab fee \$5.

102-4 Intermediate German. (3-2) (TCCNS = GERM 1412) Instruction and practice in understanding and speaking the German language with increasing emphasis on reading and writing the language. Prerequisite: GERM 101 or equivalent. Lab fee \$5.

201-3 Composition and Reading. (3-0) (TCCNS = GERM 2311) Development of increased facility in the German language through reading, writing, and conversation. Prerequisite: GERM 102 or equivalent.

202-3 Composition and Reading. (3-0) Readings in either literary or technical German with emphasis on vocabulary building, writing, and translation skills. Prerequisite: GERM 102 or equivalent.

486-v Special Problems. (Credit variable) A course featuring independent reading, research, and discussion under personal direction of instructor. Topics vary according to student need. Open to students of senior classification or by approval of department head.

HEALTH (HLTH)

101-3 Wellness for Life. (2-2) (TCCNS = PHED 1338) The study of principles and techniques needed to promote human health and hygiene. Topics will include, but not be limited to: fitness assessment and skills; personal awareness and management techniques, self motivation, proper nutrition, responsibility, and health choices as they relate to wellness. Health related physical fitness laboratories for skills and strategies will be conducted. Lab fee \$5.

231-3 First Aid. (2-2) A course designed to provide an understanding of first aid and emergency procedures, including theory and practice, given to victims of accident and illness. Lab fee \$5.

351-3 Principles of Health and Fitness for Children. (3-0) A survey of the essential knowledge and skills of health and physical education as they relate to children ages 6-14. Included will be skills related to personal health and safety, physical fitness, motor development, games and sports, gymnastics, and rhythmic activities. Prerequisite: Junior classification or approval of department head.

HISTOLOGY TECHNICIAN (HLAB)

214-4 Introduction to Histotechnology. (3-3) Introduction to the healthcare environment and histology laboratory with emphasis on safety; infection control; mathematics; communication; medical terminology and ethical, legal and professional issues. Lab Fee \$15

215-4 Histotechnology I. (2-6) Histotechniques: Tissue Processing; Introduction to basic theories and practices of histotechnology including laboratory safety, fixation, tissue processing, embedding, microtomy, routine staining and operation and maintenance of lab equipment. Lab Fee \$15

- 224-4 Functional Histology II. (3-3)** This anatomic histology course emphasizes the recognition, composition and function of organ systems including skeletal, nervous, circulatory, endocrine and reproductive system tissues. Lab Fee: \$15
- 225-4 Histotechnology II. (2-6)** Histotechniques: Theory and practice of histochemical staining techniques. Topics include reagent preparation, basic tissue dye bonding, differentiation, quality control, nuclear, connective tissue and carbohydrate staining techniques. Lab Fee \$15
- 234-3 Functional Histology I. (3-1)** Cellular Histology; Emphasizes the recognition, composition, and function of cells, cellular organelles, cell life cycles, blood and basic tissue types. Lab Fee: \$15
- 235-3 Histotechnology III. (1-6)** Histotechniques: Special Staining; Theory and practice of histochemical staining techniques, including microorganism, tissue pigments, minerals, and neural tissue staining. Includes specialized techniques such as electron microscopy, immunohistochemistry, and muscle enzyme histochemistry. Lab Fee \$15
- 282-1 Introduction to Medical Laboratory Sciences. (1-1)** An introductory course in medical laboratory science. Universal lab safety practices, computer applications for science and medicine, basic lab mathematics, quality control and basic laboratory equipment including microscopy, centrifugation, analytical weighing and other laboratory equipment common to all medical laboratories. This course must be taken during the first semester of enrollment in the HT/MLT certification programs. Lab Fee: \$15; Course Fee: \$25
- 285-2 Capstone Cases and Review. (2-2)** Major theoretical and practical applications in histotechnology including preparation of staining portfolio, mock registry exam (program final) and attendance at pathologist case presentations. This course must be taken during the final semester of enrollment in the HT program. Lab Fee \$15
- 295-4 Clinical Histotechnology I. (0-192-240)** An introductory histology laboratory-based learning experience that enables students to observe and apply theory, skills, and concepts. Direct supervision is provided by the clinical professional. This course must be taken during the first semester of the HT program. Grading in this course is satisfactory/unsatisfactory, S/U. Field Assignment Fee \$75.
- 296-4 Clinical Histotechnology II. (0-192-240)** An intermediate histology laboratory-based learning experience that enables students to apply theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite HLAB 295. Grading in this course is satisfactory/unsatisfactory, S/U. Course must be taken during the second semester of the HT program. Field Assignment Fee \$75.
- 297-4 Clinical Histotechnology III. (0-192-240)** An advanced histology laboratory-based learning experience that enables students to apply and integrate theory, skills, and concepts and to work independently. Direct supervision is provided by the clinical professional. This course must be taken during the last semester of the HT program. Prerequisites: HLAB 295, HLAB 296; Grading in this course is satisfactory/unsatisfactory, S/U. Field Assignment Fee: \$75.

HISTORY (HIST)

- 101-3 World History to 1700. (3-0)** (TCCNS = HIST 2311) A survey of world history from prehistoric times to the beginning of the 18th century. Special attention will be given to the origins of civilization in Africa, Asia, and the

Middle East and its development through the ancient, medieval, and early modern eras.

- 102-3 World History Since 1700. (3-0)** (TCCNS = HIST 2312) A survey of world history from the beginning of the 18th century to the present. Special emphasis will be placed on the rise and fall of Western global influence between the 18th and 20th centuries, and the numerous repercussions of this development.
- 201-3 United States History through 1877. (3-0)** (TCCNS = HIST 1301) This course is a survey of United States history from the first European contacts through the end of the Reconstruction Period. It is designed to cover the broad sweep of United States political, cultural, social, and economic history with emphasis on those periods that have helped to shape a distinctive American character. This course with HIST 202 will fulfill the legislative requirement of two semesters of United States history.
- 202-3 United States History Since Reconstruction. (3-0)** (TCCNS = HIST 1302) This course continues the survey of United States history to present times. The emphasis is on the developments that contributed to the growth of modern America. This course with HIST 201 will fulfill the legislative requirement of two semesters of United States history.
- 302-3 The Ancient World. (3-0)** A survey of the ancient Near East, Greece, the Hellenistic period, and the Roman Republic and Empire. Prerequisite: 6 hours HIST or permission of the department head.
- 303-3 Europe in the Middle Ages. (3-0)** A survey of Medieval Europe from the decline of the ancient world to the eve of the Renaissance. Special attention will be given to the examination of economic and social changes underlying the formation and development of medieval civilization. Prerequisite: 6 hours HIST or permission of department head.
- 304-3 History of Texas. (3-0)** A survey of Texas from the Spanish colonial period to the present, with special attention to the Hispanic heritage, the Revolution and Republic, the Civil War and Reconstruction, and the political and economic developments of the modern state.
- 305-3 England and Great Britain to 1603. (3-0)** A survey of English history from Roman Britain to the death of Queen Elizabeth and the end of the Tudor dynasty. Special emphasis will be in political, legal, and religious changes which formed the foundations of modern England. Prerequisite: 6 hours HIST or approval of department head.
- 306-3 British History from 1603 to Modern Times. (3-0)** A survey of English and British history from 1603 to modern times. Special emphasis will be on constitutional, political, economic, and legal changes. Included as well will be a survey of the empire and the United Kingdom. Prerequisite: 6 hours HIST or approval of department head.
- 310-3 American Beginnings. (3-0)** The history of America from first European contact to 1763. The course emphasizes relations between Europeans and Indians, imperial rivalries, and the development of the English mainland colonies. Prerequisite: 6 hours of HIST or approval of department head.
- 311-3 Creating a Nation. (3-0)** The United States from 1763 to 1815. This course concentrates on the causes and consequences of the American Revolution, the writing of the Constitution, and the triumph of liberal democracy. Prerequisites: 6 hours HIST or approval of department head.
- 312-3 The Age of Jackson, 1815-1848. (3-0)** A study of American development during the Jacksonian period with emphasis on the expansion of social and political democracy. Prerequisite: 6 hours HIST or permission of department head.

- 313-3 Civil War and Reconstruction. (3-0)** A study of the events leading to the Civil War and the impact of that war and Reconstruction on American development. Emphasis on social and cultural forces as well as politics. Prerequisite: 6 hours HIST or permission of department head.
- 315-3 Populism and Progressivism, 1877-1917. (3-0)** A survey of turn-of-the-century America, emphasizing the impact of industrialism and urbanism on politics and society. Prerequisite: 6 hours HIST or permission of department head.
- 316-3 Military History of the United States. (3-0)** A study of the role of the military in American development with emphasis on the 20th century. The course will concentrate on the evolution of strategy and tactics, organizational change and civilian-military relations. Credit for both HIST 316 and M S 316 will not be awarded. Prerequisite: 6 hours HIST or department head approval.
- 320-3 The Renaissance and Reformation. (3-0)** A survey of European political, diplomatic, and cultural history from 1300 to 1648. The course will focus on Renaissance Humanism, the Protestant movements, the Catholic Reformation, and the emergence of the European state system during the age of religious wars. Prerequisite: 6 hours HIST or approval of department head.
- 321-3 Europe in the Age of Absolutism, 1648-1789. (3-0)** A study of the European state system from the end of the Thirty Years' War to the outbreak of the French Revolution. The course will concentrate on the consolidation of absolute monarchies, the rise of colonial empires, enlightened despotism, and the proliferation of Enlightenment ideas in Europe. Prerequisite: 6 hours HIST or permission of Department Head.
- 322-3 Revolutionary Europe, 1789-1850. (3-0)** An examination of the forces of change in modern Europe, beginning with the rise of Liberalism in the eighteenth century and culminating with the failure of the revolutionary movements of 1848-49. Prerequisite: 6 hours HIST or approval of department head.
- 331-3 Colonial Latin America. (3-0)** Exploration and colonization of the Spanish and Portuguese dominions in South and Central America; political history of the colonies; the church and colonial institutions; commercial systems of Spain and Portugal; expansion into the North American borderlands; early independence movements. Prerequisite: 6 hours HIST or approval of department head.
- 335-3 Mexico Before Independence. (3-0)** A survey of Mexican history from the arrival of the first peoples through the end of the Spanish colonial era. Early native civilizations, especially the Maya and Aztec, will be studied as well as the incursion of the Spanish and the conquest and colonization of Mexico.
- 336-3 History of Mexico, 1821-Present. (3-0)** A survey of modern Mexico, including the independence movement, conflict of centralism and federalism, war with the United States, political and economic developments under Juarez, Maximilian, and Diaz, and the social revolution of the 20th century. Prerequisite: 6 hours HIST or permission of department head.
- 400-3 World War II and the Holocaust. (3-0)** An examination of European history between the rise of Hitler in the early 1930s to the end of World War II in 1945. Special attention will be devoted to the origins, process, and consequences of the Holocaust. Prerequisite: 6 hours HIST or permission of department head.
- 401-3 United States and the World. (3-0)** A history of how world events influenced American history from 1789 to the present. The course will

discuss American diplomatic and social reactions to major world occurrences. Emphasis will be on the twentieth century, particularly on the two world wars and the Cold War era.

- 402-3 Economic Development of the United States. (3-0)** A survey of the economic development of the United States from colonial times to the present. Credit for both HIST 402 and ECO 402 will not be awarded. Prerequisites: ECO 101 or 201 and 6 hours HIST.
- 407-3 History Careers Outside the Classroom. (3-0)** Examination of the choices available for historians who seek careers outside of classroom teaching, including museums, historic preservation, cultural resource management, archival administration, parks, oral history, corporate history, and editing and publishing. Will not count as a history course for purposes of teacher certification. Prerequisite: 6 hours of history.
- 410-3 Recent United States History, 1914-Present. (3-0)** The history of the United States since 1914. Prerequisite: 6 hours HIST or approval of department head.
- 412-3 Social History of the United States Before 1865. (3-0)** The social, cultural, and economic development of the United States from colonial times to the end of the Civil War. Prerequisite: 6 hours HIST or approval of department head.
- 413-3 Social History of the United States Since 1865. (3-0)** The social, cultural, and economic development of the United States since the Civil War. Prerequisite: 6 hours HIST or approval of department head.
- 414-3 History of Trans-Mississippi West. (3-0)** History of the Great West from the Lewis and Clark expedition to the 20th century. Emphasis on the West as a distinctive region in national politics, state building in the 19th century, and the development of agriculture, transportation, and commerce. Prerequisite: 6 hours HIST or permission of department head.
- 415-3 History of the South. (3-0)** A survey of southern history concentrating on factors which made the region distinct from the rest of the United States, with major emphasis on social and cultural development. Prerequisite: 6 hours HIST or permission of department head.
- 420-3 Europe, 1850-1919. (3-0)** An analytical survey of important developments in the political, social, economic, and intellectual history of Europe between the revolutionary movements of 1848 and the first World War. Prerequisite: 6 hours HIST or permission of department head.
- 423-3 History of Russia and Eastern Europe. (3-0)** A history of Russia and Eastern Europe from the 18th century, through the Bolshevik Revolution, to the aftermath of the collapse of the Soviet Union. Special emphasis will be placed on an analysis of those forces which led to the downfall of the Soviet system and the problems of adjustment in post-Soviet Russia and Eastern Europe. Prerequisite: 6 hours HIST or permission of department head.
- 424-3 National Histories. (3-0)** Each time this course is offered, it will examine the history of a particular state. May be repeated for credit when topics vary. Prerequisites: 6 hours HIST or approval of department head.
- 425-3 European Intellectual and Cultural History. (3-0)** A survey of some of the fundamental ideas in the European intellectual tradition through an analysis of primary texts. The course begins with an examination of the foundations of western thought in the Judeo-Christian and Graeco-Roman traditions. The latter half of the course focuses on the ideas and ideologies that have shaped modern European mentalities. Prerequisite: 6 hours HIST or permission of department head.

- 426-3 Social History of Modern Europe. (3-0)** An analysis of European society since the industrial revolution, with emphasis on the social impact of industrialization and urbanization, changing patterns of social stratification, mobility, and class conflict in the 19th and 20th centuries. Prerequisite: 6 hours HIST or permission of department head.
- 431-3 World Since 1919. (3-0)** Major trends in world history following World War I, including the impact of the Great Depression, the rise of totalitarianism, and the coming of World War II. Events of the latter 20th century receive special emphasis. Prerequisite: 6 hours HIST or permission of department head.
- 440-3 Historical Method. (3-0)** An examination of the concepts basic to all historical thinking; causation, periodization, change and continuity, the roles of social forces and individuals, and problems of interpretation, accuracy, and truth. A comparison of the social sciences and the humanities will focus on the distinctive nature of the historical discipline as it has developed since the late nineteenth century. Required of all history majors and students with teaching fields in history. Prerequisites: 12 hours of HIST or permission of department head.
- 450-3 Special Topics in History. (3-0)** A study of important periods, regions, and themes in history. May be repeated when the topic varies.
- 484-3 Practicum, Field Problem, or Internship. (3-0)** Supervised professional activities in workplaces where historians find professional careers including museums, historic preservation, cultural resource management, archival administration, teaching, parks, oral history, corporate history, and editing and publishing. Will count as an elective but not for teacher certification or completion of the history major. Prerequisite: HIST 407. May be repeated once for credit. Field experience fee \$75.
- 485-v History Seminar. (Credit variable)** Individual instruction in selected fields of history. The course will stress reports and wide readings in the field selected. Prerequisite: Senior classification or approval of department head. May be taken more than once for credit.
- 486-v Problems in History. (Credit variable)** Independent reading, research and discussion. Entry into this course will be arranged with the history counselor.
- 507-3 Public History Seminar. (3-0)** An examination of public history careers available for master's level history graduates in areas outside of classroom teaching. This is a gateway course for all public history courses.
- 508-3 Museum Studies. (3-0)** An examination of the theory and practice of the multiple careers available to historians in museums, including curating, collections care, educational programming, exhibits, media relations, financial development, and construction and management of facilities. Course fee \$50.
- 509-3 Historic Preservation. (3-0)** An examination of historic preservation as an area of professional employment for historians. Course fee \$50.
- 510-3 Archival Principles and Practices. (3-0)** An examination of the principles and practices of archival management. Course fee \$50.
- 520-3 State and Local History. (3-0)** Selected problems. Readings and research in Texas history. May be repeated when topics vary.
- 531-3 Directed Reading in American History Since 1877. (3-0)** Readings and discussions of selected problems. May be repeated for credit when topics vary.
- 532-3 Selected Topics in American History. (3-0)** Research and writing of papers on selected topics. May be repeated for credit when topics vary.

- 540-3 Directed Readings in European History. (3-0)** Readings and discussions of selected topics in early modern and modern European history. May be repeated for credit when topics vary.
- 542-3 Selected Topics in European History. (3-0)** Research and writing of papers on selected topics. May be repeated for credit when topics vary.
- 543-3 Directed Readings in World History. (3-0)** Readings and discussion of selected topics in the history of regions and countries outside of Europe and the United States. May be repeated for credit when topics vary.
- 586-v History Problems. (Credit variable)** Conference course. Independent reading, research, discussion, under supervision of senior professor.
- 588-3 Thesis. (3-0)** Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisites: 24 hours graduate credit, including HIST 598 and at least one research seminar, and consent of major professor.
- 598-3 Historiography and Historical Method. (3-0)** A survey of various "schools" of history with particular emphasis on recent trends and techniques in historical writing. Prerequisite: Full admission to the graduate program or permission of instructor.
- 599-3 Practicum, Field Problem, or Internship. (3-0)** Supervised professional activities in workplaces where historians find professional careers including museums, historic preservation, cultural resource management, archival administration, teaching, parks, oral history, corporate history, and editing and publishing. Will count as an elective but not for teacher certification or completion of the history major. May be repeated once for credit. Requires approval of instructor and department head. Field experience fee \$75.

HONORS PROGRAMS (HNRS)

- 185-1 Freshman Honors Seminar. (1.5-0)** Discussion and argumentation about a topic of broad intellectual, academic, ethical, or public significance. Topics and content vary. Prerequisites: acceptance into Presidential Honors Program or permission of the director of the Presidential Honors Program.

HORTICULTURE (HORT)

- 200-3 Principles of Horticulture. (3-0)** (TCCNS = AGRI 1315 or HORT 1301) Introduction to the horticulture industry and the career opportunities that are available. The course includes an introduction to plant classification and structure, greenhouse construction and management, orchard and vegetable crops, and plant propagation.
- 210-3 Horticulture Techniques. (2-2)** Designed to acquaint the student with horticultural, gardening, and landscaping techniques including pruning, propagation, landscape installation, and construction. Prerequisite: HORT 200. Course fee \$10.
- 270-3 Introduction to Turfgrass Science. (2-2)** An introduction to turfgrass history, benefits, and use. Growth and development of various turfgrass species and their culture, including pest and disease management, are studied.
- 300-3 Plant Propagation. (2-2)** Principles of propagating plants, including vegetables, ornamentals, and fruits. Methods of handling seed; starting plants by the use of cuttings, layers, buds, grafts, and bulbs; ways of propagating specific plants; factors influencing growth of plants after transplanting. Prerequisites: BIOL 120 and HORT 200. Lab fee \$4.

- 301-3 Landscape Design. (2-2)** Planting design and use of plants in the landscape. Use of drafting instruments, preparation of plans, perspective drawings, and cost estimates. Prerequisite: Junior classification. Lab fee \$2.
- 315-4 Weed Management. (3-2)** General principles in the development of weed prevention and management programs. Common weed ecology and life cycles, land management factors, herbicide selection and performance, and cultural control strategies. Laboratory includes weed identification and herbicide application methods. Credit for both HORT 315 and AGRN 315 will not be awarded. Pre-requisites: HORT 200 or 270. Lab fee \$10.
- 320-3 Landscaping and Gardening Practices. (3-0)** The use of landscape plants, vegetable and fruit crops for residential properties development. Gardening practices to include pruning, planting design, fertilizing, pest control, and organic methods will be studied.
- 360-3 Horticultural Design. (2-2)** Principles of landscape, interior, and floral design. Plant identification, environmental requirements, and culture. Prerequisite: HORT 200 or equivalent. Lab fee \$5.
- 380-3 Golf Course Design and Construction. (2-2)** Topics include the history of golf, styles of golf courses and layouts, site analysis, and design of greens, tees, and fairways. Construction practices as applied to tees, greens fairways, drainage, and irrigation will be studied. Discussions will include environmental issues related to design and construction, and permits as required by the government. Prerequisite: HORT 200 or 270 or approval of instructor. Lab fee \$15.
- 390-3 Horticultural Plants. (2-2)** Identification, classification, and characteristics of horticultural plants. Includes the study of trees, shrubs, aroids, cacti, bromeliads, ferns, begonias, and orchids. Prerequisite: HORT 200 or equivalent or approval of department head. Lab fee \$8.
- 401-3 Greenhouse and Nursery Management. (2-2)** A study of the variables affecting greenhouse and nursery crop production. Both economic and physical variables will be explored. Particular emphasis will be placed on management techniques used by commercial establishments in producing and marketing ornamental nursery and greenhouse plants. Prerequisites: HORT 200 and 300. Lab fee \$2.
- 403-3 Greenhouse Crop Production. (2-2)** Application of basic plant sciences to principles and practices involved in plant selection, production, grading, and distribution of plants grown in nurseries and greenhouses. Prerequisites: HORT 200, 300, and 401. Lab fee \$14.
- 420-3 Landscaping with Native Plants. (2-2)** Identification, characterization, and utilization of herbaceous and woody plants indigenous to Texas and other areas useful for landscaping purposes. Principles and procedures of xeriscaping will be emphasized. Field trips will be required. Prerequisite: HORT 200. Lab fee \$5.
- 430-3 Horticultural Enterprises. (2-2)** Horticultural business and educational enterprises will be visited or explored. Students are required to complete a business portfolio which will include photographs and written documents. Prerequisite: Junior or Senior classification. Course fee \$15. Lab Fee \$5.
- 450-3 Retail Horticulture. (2-2)** The establishment and management of a retail store with emphasis on plant display, care, and marketing in a retail environment, and on customer relations with respect to common home and landscape problems. Prerequisite: Junior classification or approval of department head. Lab fee \$10.
- 470-4 Turfgrass Management and Irrigation. (3-2)** Characteristics and management of turfgrasses used for home lawns and recreational areas.

Turfgrass irrigation system design. Prerequisite: HORT 200 and 270. Lab fee \$6.

- 480-3 Golf Course Management. (2-2)** Environmental issues related to turfgrass and golf course management will be covered. Topics will include greens management, water conservation, course setup, personnel management, and budgeting. Prerequisites: HORT 380 and 470. Lab fee \$15.
- 484-v Internship. (Credit variable)** Minimum of 240 hours (6 weeks) of on-the-job training in a commercial or private horticultural or landscaping operation approved by academic advisor. May be enrolled concurrently in HORT 486 as arranged with advisor. Prerequisites: Senior or advanced junior classification and approval of academic advisor. Field experiences fee \$75.
- 486-v Horticultural Problems. (Credit variable)** Individualized study of current topics in student's major concentration of study or supporting discipline. Specific content and credit dependent upon student's interest, needs, and depth of study. Maximum undergraduate credit, four semester hours. Prerequisites: Senior classification and advance approval by instructor of record.
- 488-v Undergraduate Research. (Credit variable)** Fundamental research methods will be addressed through a faculty-directed project. Participation in an abbreviated lecture series may be required. Project components may include a literature review, data collection and analysis, testing, planning, project design, and/or computer modeling. The student is required to prepare a final report and produce a presentation. No credit is awarded until the report and presentation are submitted. Only one undergraduate research experience will be counted toward degree requirements. Prerequisites: Junior standing, completion of 12 hours in HORT, and approval of department head.
- 495-v Golf Course Internship. (Credit variable)** Requires an internship position for one summer, fall, or spring semester at an approved golf course. The intern will submit weekly reports, a summary and evaluation of the experience, and an oral presentation. Prerequisite: Approval of department head. Field experience fee \$75.
- 586-v Horticulture Problems. (Credit variable)** Advanced independent study and research on horticultural topics. Credit hours dependent upon depth of study and type of report submitted to supervising professor. Prerequisite: Approval of instructor of record.
- 590-3 Special Topics. (2-3)** Selected topics in horticultural sciences. May include field trips, independent study, research, community service projects, or other activities beyond the classroom. Prior academic training or experience requirements vary with topics offered. May be repeated once for credit as topics vary. Prerequisite: Consent of instructor or department head

HUMAN RESOURCE MANAGEMENT (HRM)

- 500-3 Human Resource Management. (3-0)** Presents the fundamental principles and techniques of personnel management and examines the management of human resources from the point of view of the personnel officer, the operational manager and the employee. Examines the responsibilities of organizational leadership for incorporating human resource issues in strategic planning and initiatives. Emphasis is placed on current legal considerations, issues and research. Course may not be taken for MS HRM program credit.

- 501-3 Law and Regulation in Human Resources. (3-0)** Examines legal issues and regulatory processes related to employment relationships, equal employment opportunity and affirmative action, privacy, employment testing and staffing, copyrights and patents, compensation and benefits, employee/labor relations, and occupational health and safety.
- 503-3 Managing Human Resource Development. (3-0)** Focuses on the management of human resources development training programs. Examines management issues, identifying and responding to training needs, cost/benefit analysis, four-phase evaluation and the selection and development of training staff. Prerequisite: HRM 501 or approval of the instructor.
- 504-3 Personnel Problems Seminar. (3-0)** Concerned with developing the student's proficiency in applying principles and technical tools to such personnel problems as employment, employee education and training, labor relations, industrial health and safety, wage and salary administration, and employee services.
- 507-3 HR Consulting and Job Analysis. (3-0)** Theories, strategies, operational issues and research related to conducting job analyses. Job description and specification development are examined. Emphasis is placed on using appropriate techniques to acquire, measure, assess and use information gathered in the work place. Course also explores and develops consulting skills as used in the HR field. Field projects are used extensively. Prerequisite: HRM 501 or with the approval of the instructor.
- 510-3 The Adult Learning Environment. (3-0)** Examines learning patterns, interests and participation among adults, with implications for training and development programs. Particular attention is given to the joint responsibility for learning between trainer and adult participants.
- 514-3 Workforce Planning and Employment. (3-0)** Focuses on the legal, ethical and organizational considerations related to recruitment, assessment, selection, placement and appraisal of employees and managers within various types of organizations. Case law serves as a basis for discussing the role of the EEOC, INS, DOL and other enforcement agencies in this critical human resource function. Career development and record-keeping will also be addressed. Prerequisites: HRM 501 or the approval of the instructor.
- 515-3 Employee Benefits and Services. (3-0)** Examines legal, social and technical issues and research surrounding current trends in employee benefit programs. Group health, disability and life insurance, retirement planning, time-off (leave) and wellness programs are addressed. Emphasis is placed on program administration, implementation and evaluation. Prerequisite: HRM 501 or approval of the instructor.
- 516-3 Compensation Management. (3-0)** Analyzes the theories, concepts, operational practices and research related to managing comprehensive compensation programs. Various types of compensation plans, including job evaluation levels and wage structures are investigated. Emphasis is placed on the development of sound compensation programs which consider current trends, legal implications and social requirements. Quantitative applications are required to analyze various case studies and problems. Prerequisites: HRM 501.
- 524-3 Employment and Labor Relations. (3-0)** Exploration of the labor union movement and the process of collective bargaining, the formation of a union, labor agreement negotiation, labor agreement administration, grievance processes, and arbitration and mediation. Labor law and legal

issues in labor relations are explored extensively to include the National Labor Relations Act and the functions of the NLRB. Negotiation skills are developed via mock labor contract negotiations. Prerequisite: HRM 501 or with the approval of the instructor.

- 555-3 Internship in Human Resource Management. (3-0)** Provides work experience in the human resource field under the supervision of a faculty-approved management sponsor. Emphasis is placed on the application of human resource management skills to real world, practical problems and situations. A minimum of 20 work hours per week is expected, with a total of 200-300 on-the-job hours required during the semester. Prerequisite: Completion of 12 graduate semester hours in Human Resource Management, preregistration coordination and approval of the course instructor. Field experiences fee \$75.
- 585-3 Seminar on Consumer and Business Finance. (3-0)** This course will cover selected consumer and business finance topics. Examples include debt management, initial public offering of a new business, Internet based finance and regulatory aspects, and management of compensation. Students will be expected to research assigned topics and submit reports. Credit for both FIN 585 and HRM 585 will not be awarded.
- 586-v Problems. (Credit variable)** This course offers students the opportunity to study human resource management topics and perform research within the student's area of interest as directed by the responsible professor. Prerequisite: approval of the department head.
- 589-3 Global Human Resource Management Practices. (3-0)** A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign country visited. Graduate students will be required to complete an extensive research project in addition to other course requirements. A study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Prerequisites: Admission into a COBA graduate program and permission of the instructor.
- 595-3 Professional Issues in Human Resources. (3-0)** Examines contemporary professional issues in human resource management. Emphasis is placed on current issues, ethical decision-making processes, work place investigations, and continued professional development. Successful completion of a comprehensive competency examination covering the principal areas studied within the human resource management function (human resource management practices, selection and placement, training and development, compensation management, labor relations and occupational safety, health and security) is required. Prerequisite: A minimum of 15 hours in Human Resource Management, Psychology or concurrent enrollment.

HUMAN SCIENCES (H S)

- 101-3 Basic Clothing Construction. (2-3)** Basic construction of garments taught through lecture, demonstration, instructional media, and laboratory experience. No experience in clothing construction required. A student must earn a grade of at least a "C" to progress to H S 202. This course will not count for degree credit for the B S degree in H S with teacher certification. Lab fee \$15.
- 102-3 Principles of Design. (3-0)** (TCCNS = HECO 1325) Factors influencing design selection with emphasis on the fundamental structure and decorative

qualities of design, psychological approach to color, and creative problem-solving.

- 104-3 Infant and Toddler Development. (3-1)** (TCCNS = TECA 1354) Emphasis is on the child from conception through younger years with a study of growth and development in the family setting. Directed observation in approved settings is required. Course fee \$15.
- 105-3 Science of Food Preparation. (2-3)** (TCCNS = HECO 1315) Study of food, food composition, and scientific principles involved in food preparation. Lab fee \$20.
- 109-3 Clothing and Society. (3-0)** A study of the functions of apparel in society. Includes cultural and environmental influences, communications, social, and psychological functions, factors involved in wardrobe planning and basic introduction to textile fibers and fabrication.
- 202-3 Intermediate Clothing Construction. (2-3)** (TCCNS = HECO 1328) Principles of clothing construction taught through lecture, demonstration, instructional media, and hands-on laboratory experience. Students are required to construct personal garments and to produce samples illustrating various construction techniques. Prerequisite: H S 1013 with a grade of "C" or higher or testing out of H S 101 or approval of department head. Lab fee \$15.
- 203-3 Fashion Design. (2-3)** The designer's role in fashion production and marketing is explored. With the aid of computer software, students develop an apparel line appropriate to manufacturers' standards. Emphasis is placed on style, color, fabric and findings selection, and on the use of good design principles. Prerequisites: H S 102, 108, and 3 hours of ART or approval of department head. Lab fee \$5.
- 204-3 Introduction to Early Childhood Development. (3-1)** (TCCNS = TECA 1311) An introduction to the profession of early childhood education, focusing on developmentally appropriate practices, types of programs, historical perspectives, ethics, and current issues. One-hour lab per week in child development laboratory, to include directed observation of young children and teaching experiences. Lab fee \$5. Course fee \$15.
- 205-3 Consumer Issues and Decision Making. (3-0)** Designed to make the student an intelligent consumer of goods and services and to understand consumer decision-making in the marketplace. Major influences on consumer problems, fraud, protection, and consumer behavior.
- 206-3 Fashion Merchandising. (3-0)** (TCCNS = HECO 2311) An introductory overview of the fashion business and its scope, economic importance, and marketing practices. The power of fashion and the role of the ultimate consumer are also addressed. Field trips may be required.
- 210-3 Nutrition. (3-0)** (TCCNS = HECO 1322 or BIOL 1322) A study of the essential nutrients, including nutrient functions, food sources, deficiency symptoms, and toxicity symptoms; the nutritional requirements of individuals throughout the life cycle; the effects of nutrition on health and fitness; nutrition fads and controversies; and evaluation of personal eating habits. Prerequisite: One semester of chemistry is recommended.
- 211-3 Nutrition, Health, and Safety for the Child. (3-1)** (TCCNS = TECA 1318) A study of nutrition, health, and safety for the child. Skill development in management of issues, guidelines, and practices in nutrition, as well as community health, hygiene, safety, and legal implications will be addressed. Integration of these principles applied to a variety of settings. Course fee \$15.

- 220-3 Life Cycle Nutrition. (3-0)** Explores in depth the contribution that diet and nutrition make to support growth and the development process throughout the life cycle. Examines the distinct set of nutritional priorities for each stage of the life cycle with a focus on health promotion and disease prevention as underlying lifetime goals. Prerequisite: H S 210 or approval of department head.
- 300-3 Child Development. (3-1)** A survey of the child's physical, mental, social, and emotional development from birth to adolescence. Emphasis is placed on the child's first six years and those factors which influence his/her growth. One hour lab per week in child development laboratory, to include directed observation of young children. Prerequisite: Junior classification or approval of department head. Lab fee \$5. Course fee \$15.
- 302-3 Pattern Design. (2-3)** A study of the design and construction of flat patterns for fashion. Includes learning to make patterns for illustrated fashion designs, constructing muslin test garments, and executing designs in fashion fabrics. Prerequisites: H S 102 and 202. Lab fee \$8.
- 304-3 Food Processing. (2-3)** A study of the world food supply, trends and traditions in diet and food sanitation, safety, security, and biotechnology, and impact of processing on diet quality. Prerequisites: H S 105, 210, junior classification, or approval of department head.
- 305-3 Management of a Licensed Child Care Program. (2-3)** Basic principles of the management of licensed child care programs are studied. Experience is gained in using guidance techniques, methods and materials appropriate to the pre-school level. The class plans and operates a child care program. Prerequisite: H S 104 or 300, or concurrent enrollment. Lab fee \$8. Course fee \$30.
- 306-3 Textiles. (3-0)** Study of fiber content, yarn development, fabric construction, and finishes; the latest textile-related developments; selection and care of fibers and fabrics appropriate for apparel and interiors will be discussed. Prerequisite: Junior standing or approval of department head.
- 308-3 Advanced Fashion Merchandising. (3-0)** Functions and responsibilities of the fashion merchandiser with consideration of various retail and wholesale establishments. Emphasis on product knowledge, and profitable merchandising. Field trips may be required. Prerequisite: H S 206 and ACC 203 or approval of the instructor.
- 309-3 Lifespan of the Family. (3-0)** A study of the developmental tasks throughout the family life cycle. Stages of the family from the newly established family through the aging family are examined. Current issues such as family planning, divorce and single parenting, alternate family forms, dual career families, and aging of family members are included.
- 311-3 Human Sciences Occupations I. (3-0)** A study of the organization and management of Family and Consumer Sciences departments and programs within the secondary schools. State requirements for programs, physical facilities, advisory councils, and models for program delivery are included. Prerequisites: Junior classification and permission of department head.
- 312-3 Human Sciences Occupations II. (3-0)** A study of selected occupations within the field of Family and Consumer Sciences. Special emphasis will be given to the skills and content needed for program delivery to meet the needs of secondary and challenged students in contemporary society. Prerequisites: Junior classification or permission of department head.
- 316-3 Human Intimacy. (3-0)** A functional approach to the understanding of the interpersonal dynamics and choices in primary and secondary relationships

such as those with friends, dating partners, and potential mates. The study will include a brief historical and cross-cultural perspective with emphasis on the roots of modern American customs and the rituals of dating and mate selection. Current issues in human sexuality are included. A major component of the class is a study of interpersonal communication. Prerequisite: PSY 101 or approval of instructor.

- 317-3 Housing Interiors. (3-0)** Styles, construction, materials, and housing systems for the family based on psychological, physical, and social needs are examined. Application of design principles to construction, space allocation, and interiors for the home is also explored. Prerequisite: H S 102 or approval of department head. Course fee \$25.
- 325-3 Meal Management. (2-3)** Designed to apply the fundamentals of nutrition and food preparation in all types of meal service. Special emphasis is on time and money management. Prerequisites: H S 105, 210. Lab fee \$20.
- 326-3 Visual Merchandising. (2-3)** Basic principles of visual merchandising and as a sales instrument. Exploration of theory and process of creating visual messages. Emphasis is placed on design, display, fixtures, props, and lighting. The methods of instruction will include studio problems, lectures and field experiences. Prerequisite: H S 206 or approval of department head. Lab fee \$15.
- 327-3 Evaluation of Apparel Quality. (3-0)** Development of skills necessary to evaluate the quality of commercially constructed apparel from the perspectives of the structure, aesthetics, cost, and expected performance of the finished product. Includes study of the designer's role and the production processes involved in apparel manufacturing. Prerequisite: H S 202.
- 333-3 Family Financial Management. (3-0)** Special emphasis is given to the use of family finances in achieving goals. Consideration made for financial protection and financial planning for the family life cycle. Prerequisites: either H S 205, a course in Economics, or approval of department head.
- 399-v Cooperative Education. (Credit variable)** This course is designed to offer students the opportunity to integrate academic study with work experience that is germane to their major or minor. Enrollment requires a two-semester minimum commitment that may be accomplished by 1) alternating semesters of full-time study with semesters of curriculum-related employment, or 2) enrolling in courses at least half-time (6 semester hours) and working part-time in parallel positions of curriculum-related employment. The department Cooperative Education advisor will supervise the student's experience and assign the final grade based on the student's final report which is required to complete the course. Students may participate in the Cooperative Education program for an unlimited number of semesters but a maximum of 6 hours credit may be counted toward a degree. Prerequisites: Completion of 30 semester hours which includes 12 hours in the major or minor discipline in which the Cooperative Education course is desired, minimum overall GPA of 2.5 and a minimum GPA of 3.0 in the appropriate major or minor field, and department head approval. Field experiences fee \$75.
- 407-3 Teaching Methods in FCS. (3-0)** To develop instructional techniques, process skills, and leadership in content areas of Family and Consumer Sciences (FCS) for FCS professionals working with individuals and families. Prerequisites: Senior classification and approval of department head.
- 408-3 History of Costume. (3-0)** Development of costume from ancient times to the present; cultural and economic factors associated with the adoption and

abandonment of styles. Prerequisites: 6 hours from H S 206, 306, 308, or approval of department head.

- 409-3 Parenting. (3-0)** A contemporary approach to basic principles and skills needed for effective parenting. Study will include assessment of parenting programs and techniques. Emphasis is placed on creating nurturing home environments through the life cycle.
- 435-3 Food and Culture. (2-3)** A study of the food beliefs and practices of the major ethnic and religious groups in the U. S. and the nutritional implications of these food practices, a cultural analysis of American food trends; ethnic issues and dietary changes; and research methods in food habits. Course fee \$10. Lab fee \$20.
- 456-3 Research Methods in Human Sciences. (3-0)** Current research issues and the importance of research in Human Sciences. Review of literature and introduction to the scientific method of inquiry. Course fee \$5.
- 460-3 Pre-professional Development. (3-0)** Basic information for professional growth including: information relevant to human sciences careers; business interactions; global business-related social and cultural differences; professional correspondence; development of professional marketing tools such as interview skills, preparation of cover letters and resumes. Prerequisite: Senior standing.
- 470-3 Family and Economic Issues. (3-0)** Designed to further students' knowledge about basic family financial management, financial literacy, and household economic issues including non-financial resources such as time. Topics include aging, women's work, and other life events. Course fee \$25.
- 484-3 Internship in Human Sciences. (0-16)** Practical application of theory under the supervision of professionals in such related fields as extension, home service, business, and government programs. Prerequisites: 2.0 overall GPA; 2.25 H S GPA; completion of 90 hours course work; approved degree plan filed; recommended course load of 9-12 hours. Field experiences fee \$75.
- 486-v Special Problems. (Credit variable)** An opportunity for research experience and special projects for students majoring in Home Economics having special needs and requirements for completion of work for their degree. Registration permitted only upon recommendation of the department head. Prerequisite: Senior classification in H S.
- 491-3 Topics in Human Sciences. (3-0)** Topics of current interest in Human Sciences. This course may be repeated for a maximum 6 hours as topics change. Prerequisite: Junior standing or approval of department head. Course fee \$5.
- 585-3 Human Sciences Seminar. (3-0)** Content varies according to the needs and desires of the students. When topic varies, course may be repeated once for credit. Open to students with graduate classification and approval of department head.
- 586-v Special Problems in Human Sciences. (Credit variable)** A problem selection course available to students who are capable of independent problem selection and development. Chosen problems will be approved in advance by the instructor. May be repeated for a maximum of six hours. Prerequisites: 6 advanced level hours in the field of the chosen topic or approval of the department head.
- 591-3 Advanced Topics in Human Sciences. (3-0)** Advanced topics in Human Sciences requiring in-depth research and discussion. This course may be

repeated for a maximum 6 hours as topics change. Prerequisites:
Graduate standing and approval of department head.

HYDROLOGY AND WATER RESOURCES (HYDR)

- 110-3 Introduction to Hydrology. (3-0)** Introduction to the basic principles and practices of Hydrology including the relation of the physical and biological sciences to an understanding of the water cycle. Topics covered will also include determination of drainage areas, unit hydrographs, recurrence intervals, introduction to routing, probabilities, and conversion factors. Course fee \$15.
- 211-4 Soil Mechanics. (3-3)** Introduction to the principles of soil and their influence on the hydrological cycle, Darcy's Law and fluid flow through porous medium, stress distribution and consolidation of soil, subsurface exploration. Credit for both HYDR 211 and ENVE 211 will not be awarded. Prerequisites: PHYS 122 or concurrent enrollment and MATH 120. Course fee \$15. Lab fee \$10.
- 300-4 Mechanics of Fluids. (3-3)** Principles of hydrostatics, dynamics of viscous and non-viscous fluids, resistance to flow in pipes and open channels, transport processes, energy equation, Bernoulli equation, conservation of mass, conservation of momentum. Credit for both HYDR 300 and ENVE 300 will not be awarded. Prerequisites: PHYS 122, MATH 209. Lab Fee \$10. Course Fee \$10.
- 310-4 Basic Hydrology. (3-3)** Study of the hydrologic cycle, precipitation processes, soil moisture, infiltration, groundwater, rainfall-runoff processes, utilization of water resources, and frequency analysis; introduction to HEC-HMS programs for modeling hydrologic processes, elementary principles of field work. Credit for both HYDR 310 and ENVE 310 will not be awarded. Prerequisites: MATH 311 or concurrent enrollment; HYDR 110 or ENVE 210; and HYDR 211. Lab fee \$15.
- 311-3 GIS in Water Resources. (3-2)** An introduction to the geographic information system (GIS), basic concepts and applications in watershed hydrology and water resources. The course provides students hands-on experience in using GIS to visually analyze hydrologic data. In addition, the course covers the advanced topic of integrating GIS and hydrologic models. Prerequisite: GEOL 105, HYDR 110. Lab fee \$15.
- 320-4 Groundwater Hydrology. (3-3)** Topics include aquifer characteristics, infiltration, fluid dynamics of groundwater flow, potential flows, well analysis, water quality, groundwater pollution, legal issues in groundwater. Credit for both HYDR 320 and ENVE 320 will not be awarded. Prerequisites: HYDR 211, GEOL 105 or ENVE 210, CHEM 108, MATH 209. Lab fee \$10.
- 410-3 Water Resources Engineering. (3-0)** Fundamentals of hydraulics applicable to open channel flow, natural streams and waterways; irrigation flow characteristics; hydrologic analysis; fluid measurement methods; introduction to hydraulic models including HEC-RAS; and economic aspects of water resources. Credit for both HYDR 410 and ENVE 410 will not be awarded. Prerequisites: HYDR 300, HYDR 310, MATH 333.
- 420-4 Municipal and Industrial Water Supply and Waste Water Treatment. (3-3)** Treatment and distribution of residential and industrial water supplies, waste water treatment and disposal methods of municipal and industrial systems, environmental toxicology; aspects of groundwater monitoring and water quality maintenance. Laboratory analysis of water and waste water quality. Design of elementary treatment, distribution, and

collection systems. Credit for both HYDR 420 and ENVE 420 will not be awarded. Prerequisites: MATH 311 or concurrent registration, HYDR 300 and CHEM 201. Lab fee \$15. Course fee \$10.

- 430-3 Texas Water Resource Management. (3-0-WI)** The ecological relation of water in this biosphere with special reference to the human role; the role of behavioral sciences (social, legal, economic, political, and psychological) in the development, conservation, regulation, and utilization of water resources; current political structure and laws pertaining to the administration of water resources in the state of Texas. Credit for both HYDR 430 and ENVE 430 will not be awarded. Prerequisites: HYDR 310 and POLS 202.
- 440-1 Internship. (0-1)** Work experience with consulting firms, government agencies, and other practitioners. This course emphasizes students' practical experiences. Cannot be taken more than once for credit. Prerequisite: GEOL 105, HYDR 110. Field experiences fee \$75.
- 450-3 Modeling in Hydrology. (3-0)** Necessity of model studies. Introduction to various types of models; physics of surface and ground water flow; finite difference model; finite element model; solution of practical problems by numerical modeling. Prerequisites: MATH 333 or 360; HYDR 300, HYDR 320.
- 486-v Hydrology Problems. (Credit variable)** A directed study of selected problems in hydrology.
- 488-v Undergraduate Research Project. (Credit variable)** Preliminary research methods will be addressed through a faculty-directed project that integrates hydrology with the student's support area. Project components may include a literature review, data analysis, testing, planning, design, modeling, and computer programming. The student is required to prepare a final report and give a presentation. No credit is earned until the student has enrolled in at least 3 credit hours and the final report and presentation are certified as completed by the faculty member directing the project, at which time the student will receive 3 credit hours. Prerequisites: Junior Standing, HYDR 310, HYDR 320, and 9 or more advanced hours defining a support area.

INDUSTRIAL TECHNOLOGY (I T)

- 105-3 Principles of Drafting. (2-4)** An introduction to mechanical drafting involving geometrical constructions, orthographic projection, dimensioning techniques, sectional views, auxiliary views, isometric views, and other topics related to manufacturing and other areas of drafting. Lab fee \$10.
- 106-3 Power Transfer Technology. (2-4)** A study of power transfer mechanisms used in industrial machines including those used for obtaining mechanical advantage (gears, pulleys, inclined planes, and levers), pneumatics, and hydraulics. The theory of operation and practical applications are stressed. Lab fee \$10.
- 117-3 Metals Technology. (2-4)** A study of metals and their machining characteristics and application. Emphasis is placed on layout, precision measurement, and heat treating. Laboratory experiences include work with sheet metal, metal casting, and metal lathe operation. Lab fee \$10.
- 235-3 Solid Modeling. (2-4)** A study of complex three-dimensional solid models used in the fields of mechanical engineering, sheet metal, welding, and other areas of manufacturing and engineering. Orthographic views projected from solid models and annotation techniques are used to produce