290 Photojournalism (3) Principles and practice of photography as a creative tool of communication. Basic camera technique, digital photography, historical and contemporary photojournalism.
   Contact Hour Distribution: Lecture and lab.

302 Readership and Audience Analysis (3) Measurement and analysis of readership/audience. Broad overview of methods used for newspaper, magazine, radio, television, cable, and the Internet. Applications to both internal and external decision-making and external communication in media.
   (RE) Prerequisite(s): 275.

311 Electronic News Writing and Reporting (3) Writing and reporting for electronic news media (radio, television/cable, and the Internet). Lecture and lab course with writing emphasis. Introduction to Computer Assisted Reporting (CAR). Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 200 and 275.

315 Print/Web News Writing and Reporting (3) Gathering and writing news for publication in magazines and newspapers. (RE) Prerequisite(s): 200.

320 Mass Media Commercial Writing and Promotion (3) Study of media (print, radio, television, cable, and the Internet) commercial writing and promotion with an emphasis on writing persuasive messages. Analysis of markets and research data. Planning promotional campaigns. (RE) Prerequisite(s): 200 and 275.

333 Print/Web Editing (3) Methods and practice in judging news, editing copy, writing headlines and designing newspapers and magazines. Emphasis on precise word use and news display.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite: 315 or Public Relations 320.

336 Intermediate Video Production (3) Emphasis on concepts related to message design, development, field acquisition, writing, digital videography, producing, and directing video productions. Students are introduced to non-linear digital editing. As part of the class, students provide production support for on-going programs produced for digital cable television channel.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite: 236.

360 Electronic Media Performance (3) Development of vocal, visual, and performance skills for announcers, interviewers, newscasters, and reporters.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 275.

365 Sports Broadcasting (3) Introduction to the skills needed to perform as a radio or TV sportscaster. Includes voice and diction training, interviewing athletes, radio and TV sportscasting, and play-by-play techniques.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisites: 200 and 275.


375 Sports Reporting Across the Media (3) An introductory course in gathering, writing, and presenting sports news in a variety of formats, including print, photography, radio, television, and the Web.

400 Mass Communication Law and Ethics (3) Emphasis on legal issues affecting print and electronic media, including libel, privacy, copyright, free press-fair trial, governmental regulations of advertising, electronic media, and public relations. Also includes ethical standards and practices. (Same as Legal Studies 400.)

411 Electronic News Gathering (3) Writing, reporting, shooting, editing, and producing for the electronic news media. Lecture and lab course providing students with experience as reporters/ producers for a television and cable news program. Includes an overview of electronic news-gathering equipment, as well as non-linear video editing.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 311.

412 Opinion Writing (3) Analysis of editorial positions and practices. Writing editorials/columns for newspapers, magazines, corporate publications, and electronic media (radio, television, cable, Internet), with emphasis upon study and use of rhetorical devices and logic.

414 Magazine and Feature Writing (3) Techniques of writing features and in-depth articles for mass circulation and specialized magazines or newspapers. Organizing and presenting material with attention to problems in areas such as business, science, agriculture, and the humanities. (WC) (RE) Prerequisite(s): 333.

415 Magazine Industry Workshop (3) Introduction to the magazine industry including management, design, writing and editing, and interactivity. Analysis of print and electronic format magazines. Planning new products for the marketplace.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 414.

420 Media Sales (3) Problems and practices of newspaper, radio, television, cable, and Internet advertising sales. Practical experience in radio and television sales. Use of ratings and new technology in sales presentations.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 302 and 320.

   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite: 222.

430 Public Affairs Reporting (3) Reporting (including database reporting) and writing about courts, government, and public agencies. Event and issue-oriented journalism of politics and public affairs.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 333.

433 Editing and Layout for Print/Web (3) Editing and layout for newspapers, magazines, and online publishing.
   Contact Hour Distribution: Lecture and lab. (DE) Prerequisite(s): 333.

436 Advanced Video Production (3) Students are actively involved in the program development process, including conceiving, writing, and producing original video productions, as well as maintenance of existing shows airing weekly on the university's digital cable channel. Advanced post-production techniques, including non-linear digital editing.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite: 336.

444 Journalism as Literature (3) Study of writers from the 17th century to the modern era whose works have endured as both journalism and literature. An emerging genre called literary journalism will be examined as a means of cultural reporting with a personal narrative style. (WC)

446 Video Capstone (3) Overview of production management. The course will be taught in conjunction with visiting professionals from a variety of corporate and commercial video production facilities. In-depth seminars on production management, including budgeting, planning, staffing, producing, directing, and evaluating video projects. Students are involved in managing productions produced for digital cable channel.

450 Writing about Science and Medicine (3) Writing workshop to analyze examples of successful science writing and write series of articles for the general public based on scientific journals, news conferences, technical meetings, and interviews. (Same as Information Sciences 450.) (WC)

451 Environmental Writing (3) Writing for news media (including the Internet) on such environmental issues as sprawl, forests, air pollution, energy, and invasive species. Students hear presentations from and interview experts in environmental science and reporting. Exemplary environmental writing is analyzed. (WC)

456 Science Writing as Literature (3) Survey of important science writing for the general public across the spectrum of science, engineering, and medicine. Works by authors such as Arthur C. Clarke, Stephen J. Gould, and Richard Selzer will be analyzed for literary qualities in a quest to understand why some science writing succeeds. (WC)

457 Media and Society (3) Media processes and effects on society. Major theories/research are introduced and applied to current issues.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 200 and 275.

460 Electronic News Operations (3) Production of news programs for television, cable, and the Internet. Advanced course in electronic news gathering, reporting, digital videography, non-linear editing, and producing. Computerized newsroom and studio are utilized.
   Contact Hour Distribution: Lecture and lab. (RE) Prerequisite(s): 411.

465 Media and Diversity (3) Major theories/research are introduced regarding media effects on public perceptions and attitudes toward various social groups (e.g., groups based on gender, class, race/ethnicity, and sexual orientation). Discussion of historical and legal implications of media effects. (Same as Women's Studies 465.) (RE) Prerequisite(s): 200 and 275.

Registration permission: Consent of instructor.
252 COURSES OF INSTRUCTION

470 Cable, Broadband, and Interactive Digital Media (3) History and structure of cable television and other broadband delivery systems (DBS, Internet, etc.). Development of digital broadcasting, interactive television, and other broadband media systems and digital technologies. Regulatory, policy, programming, and management issues arising from new media and digital technologies. (RE) Prerequisite(s): 275.

475 Sports Writing (3) Writing sports stories, features, and columns. Sports writing is considered from the standpoint of sports reporters, sports information specialists, and others with an interest in writing about sports.


485 Media Management (3) Business policies and practices of newspaper, broadcast, cable, and Internet operations. Departmental functions, cost and income analysis, and leadership styles and techniques with an emphasis on mid- and senior-level management. Job-hunting guidelines provided.


491 Foreign Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

492 Practicum (1-2) Work and learning experience at newspaper, radio, television, cable, Web, or other non-broadcast facilities. Final written report required.

493 Independent Study (3) Repeatability: May be repeated. Maximum 6 hours.

494 Special Topics (3) Topics vary. Repeatability: May be repeated. Maximum 6 hours.

498 Internship (3) Full-time (30-40 hours per week) work experience in news, production, or sales and management with non-university professional organization. Educational experience beyond that available at the university. Final term paper. Credit Restriction(s): No retroactive credit for previous work experience. Registration Restriction(s): Minimum student level – senior.

Judaic Studies (595)

311 Ancient Hebraic Religious Traditions (3) (See Religious Studies 311.)

312 Religious Aspects of Biblical and Classical Literature (3) (See Religious Studies 312.)

320 Women and Religion (3) (See Religious Studies 320.)

322 Medieval Philosophy (3) (See Philosophy 322.) (WC)

350 German-Jewish Topics in Literature and Culture (3) (See German 350.)

369 History of the Middle East (3) (See History 369.)

370 History of the Middle East (3) (See History 370.)

381 Introduction to Judaism (3) (See Religious Studies 381.)

383 History of Jewish Civilization I (3) (See History 383.)

384 History of Jewish Civilization II (3) (See History 384.)

385 Contemporary Jewish Thinkers (3) (See Religious Studies 385.)

386 Voices of the Holocaust (3) (See Religious Studies 386.)

395 The Crusades and the Medieval Christian-Muslim Relations (3) (See History 395.)

405 Modern Jewish Thought (3) (See Religious Studies 405.)

425 Early Christian and Byzantine Art to 1350 (3) (See Art History 425.)

431 Medieval Art of the West 800-1400 (3) (See Art History 431.)

484 Studies in Jewish History (3) (See History 484.)

Latin American Studies (600)

251 Introduction to Latin American Studies (3) (See History 255.) (CC)

252 Introduction to Latin American Studies (3) (See History 256.) (CC)

313 Peoples and Cultures of Mesoamerica (3) (See Anthropology 313.)

314 Peoples and Cultures of South America (3) (See Anthropology 316.)

315 Aspects of Luso-Brazilian Literature (3) (See Portuguese 315.)

319 Caribbean Cultures and Societies (3) (See Anthropology 319.)

326 Brazilian Cinema (3) (See Portuguese 326.)

331 Introduction to Hispanic Culture (3) (See Spanish 331.)

333 Survey of Spanish-American Literature: 1700 to Present (3) (See Spanish 333.)

334 Survey of Hispanic Literatures: Beginnings-1700 (3) (See Spanish 334.)

360 History of Latin America (3) (See History 360.)

361 History of Latin America (3) (See History 361.)

373 Geography of South America (3) (See Geography 373.)

401 Cultural Plurality and Institutional Changes in Latin America (3) (See Spanish 401.)

402 Latin American Studies Seminar (3) (See Spanish 402.)

430 Contemporary Brazilian Studies (3) (See Portuguese 430.)

432 Special Topics in Literature and Culture of the Portuguese-speaking World (3) (See Portuguese 432.)

456 Latin American Government and Politics I (3) (See Political Science 456.)

460 History of Brazil (3) (See History 460.)

461 Cuban Revolution in Historical Perspective (3) (See History 461.)

462 History of Mexico (3) (See History 462.)

465 Latin American Film and Culture (3) (See Spanish 465.)

475 Studies in Latin American History (3) (See History 475.)

479 Enchanted Texts in Hispanic Literature (3) (See Spanish 479.)

491 Foreign Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

Legal Studies (617)

244 Professional Responsibility (3) (See Philosophy 244.) (AH) (OC)

301 The Legal Environment of Business (3) (See Business Law 301.)

330 Law in American Society (3) (See Political Science 330.)

331 Sociological Research (3) (See Sociology 331.)

340 Women, Politics, and the Law (3) (See Women’s Studies 340.)

341 Judicial Process and Policymaking (3) (See Political Science 341.)

362 Roman Law (3) (See Classics 362.)

392 Philosophy of Law (3) (See Philosophy 392.)

393 Global Justice and Human Rights (3) (See Philosophy 393.)

400 Mass Communication Law and Ethics (3) (See Journalism and Electronic Media 400.)

401 Political Analysis (3) (See Political Science 401.)

430 United States Constitutional Law: Sources of Power and Restraint (3) (See Political Science 430.)

431 United States Constitutional Law: Civil Rights and Liberties (3) (See Political Science 431.)

435 Criminal Law and Procedure (3) (See Political Science 435.)

442 Administrative Law and Regulatory Policymaking (3) (See Political Science 442.)

445 Administration of Justice (3) (See Political Science 445.)
451 Criminal Justice (3) (See Sociology 451.)
455 Society and Law (3) (See Sociology 455.)
469 Freedom of Speech (3) (See Communication Studies 469.)
470 International Law (3) (See Political Science 470.)
490 Language and Law (3) (See English 490.)
493 Independent Study (1-3)
  Repeatability: May be repeated. Maximum 3 hours.
  Registration Permission: Consent of chair.
494 Internship (3)
  Registration Permission: Consent of chair.
496 The Rhetoric of Legal Discourse (3) (See English 496.)
499 Mock Trial (1)
  Repeatability: May be repeated. Maximum 8 hours.
  Registration Permission: Consent of chair.

Linguistics (623)

200 Language, Linguistics, and Society (3) Introduction to linguistics with focus on language development and use of language by individuals and groups.
  (DE) Prerequisite(s): English 102 or 118 or 132.
321 Introduction to Old English (3) (See English 321.)
371 Foundations of the English Language (3) (See English 371.)
372 The Structure of Modern English (3) (See English 372.)
400 Topics in Linguistics (3)
  Repeatability: May be repeated. Maximum 6 hours.
411 Linguistic Anthropology (3) (See Anthropology 411.)
423 The Development of Diachronic and Synchronic Linguistics (3) Development of western linguistic thought from the Hebrews and Greeks through modern times. Readings from Boas, Sapir, Bloomfield, and others.
  Recommended Background: 9 hours of courses (300 or above) required for linguistics concentration.
425 Introduction to Descriptive Linguistics (3) (See French 425.)
426 Methods of Historical Linguistics (3) (See German 426.)
429 Romance Linguistics (3) (See French 429.)
431 Topics in Hispanic Linguistics (3) (See Spanish 430.)
435 Structure of the German Language (3) (See German 435.)
436 History of the German Language (3) (See German 436.)
471 Sociolinguistics (3) (See English 471.)
472 American English (3) (See English 472.)
474 Teaching English as a Second or Foreign Language I (3) (See English 474.)
476 Second Language Acquisition (3) (See English 476.)
477 Pedagogical Grammar for ESL Teachers (3) (See English 477.)
485 Special Topics in Language (3) (See English 485.)
490 Language and Law (3) (See English 490.)
491 Foreign Study (1-15)
  Repeatability: May be repeated. Maximum 15 hours.
492 Off-Campus Study (1-15)
  Repeatability: May be repeated. Maximum 15 hours.
493 Independent Study (1-15)
  Repeatability: May be repeated. Maximum 15 hours.

Logistics (626)

310 Intermediate Logistics (3) The concepts, principles, and methods used to plan, organize, and manage logistics activities in a global environment. Activities covered include customer service, order fulfillment, inventory, materials and distribution planning, transportation, warehousing, and network design.
  (RE) Prerequisite(s): Business Administration 331.
  Registration Restriction(s): Majors in the College of Business Administration.
411 Logistics Analytical Methods I (3) Introduction to the principal analytical tools and models that are used in logistics. Application of the analytical tools to logistics problems. Use of these techniques to support negotiations in a global business world.
  (RE) Prerequisite(s): 310.
  Registration Restriction(s): Majors in the College of Business Administration.
412 Logistics Analytical Methods II (3) Advanced analytical tools and techniques used to solve strategic, tactical, and operational global supply chain problems. Managing the use of quantitative analytical tools in logistics.
  (RE) Prerequisite(s): 310.
  Registration Restriction(s): Majors in the College of Business Administration.
413 Logistics Operations Management (3) Analysis of logistics operations and management techniques applied to warehousing/distribution center operations, purchasing and operation of transportation services, and logistics personnel management.
  (RE) Prerequisite(s): 310.
  Registration Restriction(s): Majors in the College of Business Administration.
421 Procurement and Supply Management (3) Addresses the processes that facilitate the structure, development, and management of value added transactions and relationships between supplier and customer organizations in a global supply chain context. The course examines the management of the business purchasing function, including supplier selection and development, quality control, cost management, and performance measurement.
  (RE) Prerequisite(s): 411.
  Registration Restriction(s): Majors in the College of Business Administration.
460 Strategic Logistics in a Global Supply Chain Environment (3) Capstone course for logistics, with emphasis on strategic logistics from a global supply chain perspective. Integrates logistics concepts, framework, processes and tools learned in previous logistics coursework.
  (RE) Prerequisite(s): 411.
  Registration Restriction(s): Majors in the College of Business Administration.
492 Logistics Off-Campus Study (1-6)
  Grading Restriction: Satisfactory/No Credit grading only.
  Repeatability: May be repeated. Maximum 6 hours.
  Registration Restriction(s): Logistics major.
  Registration Permission: Consent of instructor.
493 Independent Study (1-6) Directed research on subject of mutual interest to student and staff member.
  Repeatability: May be repeated. Maximum 6 hours.
  Registration Restriction(s): Logistics major.
  Registration Permission: Consent of instructor.

Management (625)

300 Organizational Management (3) The study of the theories of organizations and the practice of management within them.
  (RE) Prerequisite(s): Business Administration 201.
  Comment(s): Not for majors in the College of Business Administration.
  Registration Restriction(s): Minimum student level–junior.
331 Developing Managerial Skills (3) Focuses on developing the skills to manage the dynamics of organizational behavior including motivating others, decision-making, using power and influence, resolving conflict, building teams, and leading change.
  (RE) Corequisite(s): Business Administration 331 or Business Administration 341.
  Registration Restriction(s): Majors in the College of Business Administration.
401 Business Strategy/Policy (3) Strategy and policy which affect the character and success of the total enterprise. Capstone course which integrates all functional areas in the formulation and implementation of strategy which will enable the organization to reach objectives. Major writing requirement.
  (RE) Prerequisite(s): Business Administration 353 and Business Law 301.
  Comment(s): For seniors.
  Registration Restriction(s): Majors in the College of Business Administration.
402 International Business Strategy (3) Provides an understanding of how to design and implement business and corporate strategies that will achieve sustainable competitive advantage in the international arena. Its perspective is that of the general manager who, to be successful, must balance the demands of multiple stakeholders and integrate various organizational activities and business functions into a cohesive unit. Emphasis is placed on the practical application of concepts and theories to real business situations.
  Credit Restriction: Students may not receive credit for Management 401 and 402.
  (RE) Prerequisite(s): Business Administration 353 and Business Law 301.
  Comment(s): Students must be in the international business collateral or dual concentration.
  Registration Restriction(s): Majors in the College of Business Administration.
407 Honors: International Business Strategy (3) Provides an understanding of how to design and implement business and corporate strategies that will achieve sustainable competitive advantage in the international arena. Its perspective is that of the general manager who, to be successful, must balance the demands of multiple stakeholders and integrate various organizational activities and business functions into a cohesive unit. Emphasis is placed on the practical application of concepts and theories to real business situations.

(REE) Prerequisite(s): Business Administration 353 and Business Law 301. Comment(s): Admission to the College of Business Administration’s Global Leadership Scholars Program is required.

431 Personnel Management (3) Theory, methods, and issues pertaining to successful personnel management. Strategic human resource management, human resource planning, job analysis, legal issues, recruiting, measurement/decision-making issues, assessing job candidates, human resource development, performance appraisal, compensation development, safety and health, labor relations, and organizational exit.

(RE) Prerequisite(s): 331. Registration Restriction(s): Majors in the College of Business Administration.

440 Organizational Psychology (3) (See Psychology 440.)

451 Business Planning (3) Integration of various functional disciplines and their application to general management of new ventures within established companies and entrepreneurial enterprises. Focuses on the components necessary for the development of a business plan.

(RE) Corequisite(s): 431. Registration Restriction(s): Majors in the College of Business Administration.

472 International Human Resource Management (3) Introduction to international human resource management from the perspective of the multinational firm. Topics include globalization and human resource strategy, understanding culture in the management of human resources, intercultural differences, selecting employees for international assignments, training and developing expatriate employees, and evaluation and compensation of employees in international assignments.

(RE) Prerequisite(s): Business Administration 201. Comment(s): For students in language and world business concentration in the College of Arts and Sciences (not for majors in the College of Business Administration).

492 Management Off-Campus Study (1-6) Grading Restriction: Satisfactory/No Credit grading only. Repeatability: May be repeated. Maximum 6 hours.

Registration Restriction(s): Management major. Registration Permission: Consent of instructor.

493 Independent Study (3) Readings, research, and special projects.

Repeatability: May be repeated. Maximum 6 hours.

Registration Restriction(s): Management major. Registration Permission: Consent of instructor.

Marketing (632)

300 Marketing and Supply Chain Management (3) Practical applications of what every marketer needs to know in order to effectively provide value to customers of the organization, and improve long-term performance through the systematic, strategic coordination of traditional business functions within a particular company and across businesses.

(RE) Prerequisite(s): Business Administration 201. Comment(s): Not for majors in the College of Business Administration. Registration Restriction(s): Minimum student level – junior.

340 Marketing Strategy Frameworks (3) Examines the marketing strategies that customer focused organizations use to acquire and retain customers. Students learn skills needed to create and implement these strategies. Topics include market opportunity analysis, marketing strategy planning, segmentation and targeting decisions, value positioning decisions, customer focused strategies (e.g., integrated marketing communication, brand equity, customer relationship management), and translation of customer learning into marketing strategy.

(RE) Prerequisite(s): Business Administration 332. Registration Restriction(s): Majors in the College of Business Administration.

345 Marketing Analytics (2) Develops students’ analytical and decision-making skills through specific exercises and examples that apply various statistics principles to marketing-specific content. Students learn how to organize data into customer databases and how to analyze those databases through learning of statistical techniques, decision analysis techniques, and spreadsheet analysis techniques.

(RE) Prerequisite(s): Business Administration 332. (RE) Corequisite(s): 340. Registration Restriction(s): Majors in the College of Business Administration.

350 Customer Value Analysis (3) Examines how organizations conceptualize, gather, analyze, and interpret data needed by managers to learn about customers in markets. Topics include selected consumer/customer behavior theories, customer value determination, and selected marketing research techniques.

(REE) Prerequisite(s): 340. (DE) Prerequisite(s): 345 for marketing majors. Registration Restriction(s): Majors in the College of Business Administration.

452 Product/Service Management (2) Examines how organizations deliver value to customers through product and service strategies. Topics in product management include new product development, product life cycle, product mix management, and brand marketing. Topics in service management include service design, service delivery, service quality/productivity, service failure/recovery, and role of technology.

(RE) Prerequisite(s): 340. (DE) Prerequisite or (DE) Corequisite: 350 for marketing majors and co-concentration students. Registration Restriction(s): Majors in the College of Business Administration.

456 Integrated Marketing Communications Management (2) Examines how organizations communicate value to customers. Communication topics will be presented in the framework of an integrated marketing communication strategy. Topics include advertising management, sales promotion, publicity and public relations, sponsorship marketing, direct marketing, and e-marketing.

(RE) Prerequisite(s): 340. (DE) Prerequisite or (DE) Corequisite: 350 for marketing majors and co-concentration students. Registration Restriction(s): Majors in the College of Business Administration.

458 Sales Force Management (2) Examines how organizations communicate value to customers through face-to-face selling. Focuses on the activities and problems of sales representatives and first line sales managers. Topics include the selling process, sales force organization, recruiting, motivating, forecasting, territory design, and evaluation.

(RE) Prerequisite(s): 340. (DE) Prerequisite or (DE) Corequisite: 350 for marketing majors and co-concentration students. Registration Restriction(s): Majors in the College of Business Administration.

460 Global Marketing Strategy (3) Capstone course for Marketing to integrate concepts, frameworks, processes and tools presented in all prior coursework. Students examine the application of marketing knowledge and skills in a global context with particular emphasis on how organizations respond with global marketing strategies.

(RE) Prerequisite(s): 350. (DE) Prerequisite(s): Any two of 452, 456, 458. Registration Restriction(s): Majors in the College of Business Administration.

492 Marketing Off-Campus Study (1-6) Grading Restriction: Satisfactory/No Credit grading only. Repeatability: May be repeated. Maximum 6 hours.

Registration Restriction(s): Marketing major. Registration Permission: Consent of instructor.

493 Independent Study (1-6) Directed research or special problems of interest to the student and staff member.

Repeatability: May be repeated. Maximum 6 hours.

Registration Restriction(s): Marketing major. Registration Permission: Consent of instructor.

Materials Science and Engineering (638)

101 Advances in Materials Science and Engineering (1) Review of modern advances in materials science and engineering. Exposes students to a variety of materials science and engineering case studies to demonstrate the societal impact of the materials science and engineering profession.

Grading Restriction: Satisfactory/No Credit grading only.

201 Introduction to Materials Science and Engineering (3) Correlation of atomic structure, crystal structure, and microstructure of solids with mechanical, physical, and chemical properties of engineering significance.

(RE) Prerequisite(s): Chemistry 120.

220 Selection and Use of Soft Goods Manufacture (3) Study of textile products for apparel and interior furnishings. Emphasis on the selection of fibers, yarns, fabrics, finishes, and construction details to optimize properties needed for particular end uses.


Contact Hour Distribution: 3 hours lecture and 1 hour lab.

(RE) Prerequisite(s): Mathematics 142. (RE) Corequisite(s): 201 and Mathematics 231.
260 Materials Engineering Thermodynamics (3) Thermodynamic laws, entropy, internal energy, and state functions. One-component and two-component phase equilibria. Characteristics of small and large molecular systems. Surface energy, elasticity, and material defects. (RE) Prerequisite(s): Engineering Fundamentals 152 and Chemistry 130. (DE) Prerequisite(s): Mathematics 142. (RE) Corequisite(s): 201.

290 Materials Seminar (0) Professionalism, ethical considerations, safety, patents, product liability, field trips, industrial speakers, materials science in a global/societal context, teamwork, contemporary issues, and life-long learning. Grading Restriction: Satisfactory/No Credit grading only. Repeatability: May be repeated. Maximum 4 times.


300 Materials Laboratory Procedures (1) Thermometry and sample preparation for microscopic examination. Word processing and graphics usage. Data analysis and report writing. (RE) Prerequisite(s): 201.

301 Application of Statistical and Numerical Techniques in Engineering (3) (See Chemical Engineering 301.)

302 Mechanical Behavior of Materials I (3) Fundamentals of deformation and fracture in solids, including metals, ceramics, polymers, and composites. Topics include stress and strain tensors, isotropic and anisotropic elastic and viscoelastic deformation and fatigue, elastic-plastic deformation and fracture mechanics, fatigue, and plasticity. Linear elastic and anelastic constitutive equations. Forming operations and limit criteria. Linear and multiphase constitutive equations. Forming operations and limit criteria. (RE) Prerequisite(s): 201.

304 Principles of Materials Laboratory (1) Laboratory assignments demonstrating fundamental principles of materials science and engineering. (RE) Prerequisite(s): 201. (RE) Corequisite(s): 320 and 340. (DE) Corequisite(s): 360.


350 Principles of Electronic, Optical, and Magnetic Materials (3) Fundamental electronic, optical, and magnetic properties of solid state materials. Basic bonding and crystallography correlations to electronic, optical, and magnetic properties of materials. Specific subjects that will be covered include wave properties of electrons, Schrodinger’s equation, energy bands in crystals, electrical conduction in metals and semiconductors, classical and quantum mechanical treatments of optical properties, and magnetic phenomena. (RE) Prerequisite(s): 201.

360 Principles of Ceramic Materials (3) Characterization of ceramic materials as to their crystal structure and their mechanical, electrical, and optical properties. Ceramic fabrication processes from the initial green body fabrication through the firing state. (RE) Prerequisite(s): 201.

370 Materials Processing (3) Application of fundamentals of mass and energy balances, mechanics, heat and mass transfer, and chemical thermodynamics and kinetics to the processing of materials and manufacturing of products. A wide range of materials (metals, ceramics, polymers), geometries (bulk, fibers, films, coatings), and processes (casting, molding, extrusion, forging, powder processing, coating techniques, etc.) are studied as examples of processing technologies. Elementary ideas of process measurement and control. (RE) Prerequisite(s): 201 and 250. (RE) Corequisite(s): 320.

390 Principles of Metallic Materials (3) Property control through composition, mechanical and thermal processing, ferrous and nonferrous alloys, and alloy selection. (RE) Prerequisite(s): 201.

405 Structural Characterization of Materials (4) X-ray diffraction and fluorescence, scanning and transmission electron microscopy, and microanalytical techniques. (WC)


421 Mechanical Behavior of Materials II (3) Description of stress and strain. Linear elastic constitutive equations. Isotropic and anisotropic moduli in various materials. Yield criteria, brittle fracture, crazing, and plastic strain constitutive equations. Forming operations and limit criteria. (RE) Prerequisite(s): 301.

429 Introduction to Ceramic Matrix Composites (3) Characteristics of composites, including ceramic matrix composites. Macromechanics and materials design. Overview of fabrication techniques. Microstructural characterization. Physical and mechanical property evaluation and current and potential applications. (RE) Prerequisite(s): 201 and 302.

445 Polymer Engineering Processing and Characterization Laboratory (3) Polymer film casting, film blowing, mixing, and extrusion are operated and studied. Flow rates, temperatures, pressures, and velocity profiles are acquired and used in finite element modeling and tension to correlate the polymeric material properties and morphology. Supporting instrumentation includes linear viscoelastic rheometry, capillary viscometry, SEM, OM, FTIR, etc. (RE) Prerequisite(s): 201.

470 Environmental Degradation of Materials (3) Mechanisms, measurement techniques, and control of environmental degradation processes in metals, polymers, ceramics, and composites. Materials selection and design considerations. Recommended for chemical engineering, mechanical engineering, and civil engineering majors. (RE) Prerequisite(s): 201.

472 Fundamental Principles of Composite Materials (3) Physical principles basic to the design, manufacture, and application of fiber reinforced polymers, metals, and ceramics. (RE) Prerequisite(s): 302.


476 Overview of Intermetallic Compounds and Composites (3) Fabrication and processing. Ultrafine-grained materials nanotechnology. Dynamics and stability. Microstructural characterizations. Mechanical properties, corrosion, and oxidation properties. Theoretical modeling. Design and industrial applications of intermetallics and composites. Laboratory demonstrations and group projects. (RE) Prerequisite(s): 201.


484 Introduction to Maintainability Engineering (3) (See Nuclear Engineering 484.)


494 Special Project Laboratory (1-3) Group or individual investigation of problems related to materials science and engineering. Repeatability: May be repeated. Maximum 6 hours. (RE) Prerequisite(s): 201.

Mathematics (641)

100 Intermediate Algebra (3) First degree equations and inequalities, polynomials, rational expressions, exponents, graphing, second degree equations and inequalities, systems of equations, introduction to exponential and logarithmic functions. This course is designed to prepare students for enrollment in 119, 130, 201, and 202.

Grading Restriction: A, B, C. No Credit grading.
Credit Restriction: Does not count toward the total number of hours required for graduation, nor does it fulfill any mathematics requirement.

109 Algebra Workshop (1) Self-paced tutorial center for students taking 119, 125, 130, or 141 who need additional help (as determined by placement exams, assessment exams, or classroom performance). Individual and computerized instruction on various pertinent algebra and trigonometry skills.

Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 3 hours.

113 Mathematical Reasoning (3) Classical and modern topics in number theory, logic, geometry, and probability with emphasis on problem solving. Consumer mathematics and other real-world applications. (QR)

115 Statistical Reasoning (3) An introduction to probability and statistics without calculus. (QR)
Credit Restriction: Not available for credit to students in the College of Business Administration.

117 Honors: Mathematical Reasoning (3) Topics will be selected from: number theory, logic, geometry, elementary topology, fractals, or probability with an emphasis on problem solving. Consumer mathematics, fair division, voting theory or other real-world applications may be included. (QR)
Recommended Background: ACT composite score 31 or SAT 1380.

119 College Algebra (3) A review of algebraic functions, equations, and inequalities for students who satisfy the course prerequisites for 123 or 125 but whose placement test scores indicated additional preparation is necessary.
Grading Restriction: A, B, C. No Credit grading only.
Credit Restriction: Students who receive a grade of C or better in any course numbered 123 or higher (except for 231 or 202) may not subsequently receive credit for 119.
Comment(s): Satisfactory placement test score required. This course should not be taken to remove an entrance requirement.

123 Finite Mathematics (3) For students not planning to major in the physical sciences, engineering, mathematics, or computer science. Exponential and logarithmic functions, interest and annuities, linear systems and matrices, optimization. (QR)
(De) Prerequisite(s): 119 or 130 or satisfactory placement score.
Comment(s): Satisfactory placement test score required.

125 Basic Calculus (3) For students not planning to major in the physical sciences, engineering, mathematics, or computer science. Calculus of algebraic, exponential, and logarithmic functions, with applications. (QR)
Credit Restriction: Students who receive a grade of C or better in 141 or 152 may not subsequently receive credit for 125.
(De) Prerequisite(s): 119 or 130 or satisfactory placement test score.

130 Precalculus I (4) Review of algebraic, logarithmic, exponential, and trigonometric functions.
Grading Restriction: A, B, C. No Credit grading only.
Credit Restriction: Students who receive a grade of C or better in 141 or 151 may not subsequently receive credit for 130.
(De) Prerequisite(s): 119 or satisfactory placement test score.
Comment(s): For students who satisfy the course prerequisites for 141 or 151, but whose placement test scores indicate additional preparation is necessary. Students who did not study trigonometry in high school may take the non-credit course in trigonometry simultaneously with 130.

141 Calculus I (4) Single variable calculus especially for students of science, engineering, mathematics, and computer science. Differential calculus with applications. (QR)
(De) Prerequisite(s): 130 or satisfactory placement test score.

142 Calculus II (4) Single variable calculus especially for students of science, engineering, mathematics, and computer science. Integral calculus with applications. (QR)
(Re) Prerequisite(s): 141 or 147.

147 Honors: Calculus I (4) Honors version of 141 for well-prepared students. (QR)
Credit Restriction(s): Credit will not be given for both 147 and 141 or 152.
Comment(s): Satisfactory placement test score required. Students having 32 Mathematics ACT, 700 Quantitative SAT scores, or permission from the instructor may enroll in 147.

148 Honors: Calculus II (4) Honors version of 142 for well-prepared students. (QR)
(De) Prerequisite(s): 147.
Comment(s): Students having 32 Mathematics ACT, 700 Quantitative SAT and credit for Mathematics 141, an AP Calculus score of 5, or permission of the instructor may enroll in 148.

151 Mathematics for the Life Sciences I (3) For students majoring in the life sciences. Does not serve as a prerequisite for 231 or 241. Topics include descriptive statistics, linear regression, discrete probability, matrix algebra, difference equations, calculus, and differential equations. Emphasis on applications in the life sciences. Includes computer projects. (QR)
(De) Prerequisite(s): 130 or satisfactory placement test score.

152 Mathematics for the Life Sciences II (3) Continuation of Math 151. (QR)
Credit Restriction: Students who receive a grade of C or better in 141 cannot subsequently receive credit for 152.
(Re) Prerequisite(s): 151.

171 Computer Literacy for Mathematics (3) Introduction to computers, the Internet, mathematical packages, and programming for prospective mathematics majors.
(Re) Prerequisite(s): 141.

200 Matrix Computations (1) Introduction to matrix calculations, including determinants, eigenvalues, and eigenvectors.
Credit Restriction: Students who have received a grade of C or better in 251 may not subsequently receive credit for 200.
Comment(s): For students in the College of Engineering and statistics majors in the College of Business Administration.

201 Structure of the Number System (3) Problem solving, sets and relations, numeration systems, integers, elementary number theory, rational numbers, and decimals.
Comment(s): Satisfactory placement test score required.

Comment(s): Satisfactory placement test score required.

231 Differential Equations I (3) First course emphasizing solution techniques. Includes first-order equations and applications, theory of linear equations, equations with constant coefficients, Laplace transforms, and series solutions.
(Re) Prerequisite(s): 142 or 148.

241 Calculus III (4) Calculus of functions in two or more dimensions. Includes solid analytic geometry, partial differentiation, multiple integration, and selected topics in vector calculus.
(Re) Prerequisite(s): 142 or 148.

247 Honors: Calculus III (4) (QR)
(Re) Prerequisite(s): 149.

251 Matrix Algebra I (3) First course in the algebra of simultaneous linear equations and matrices. Includes Gaussian elimination, determinants, vector spaces, linear transformations, eigenvalues, and eigenvectors.
(Re) Prerequisite(s): 142 or 148.

257 Honors: Matrix Algebra I (3)
(Re) Prerequisite(s): 148.

299 Studies in Mathematics (1-3)
Repeatability: May be repeated. Maximum 9 hours.

300 Introduction to Abstract Mathematics (3) Algebra of sets, functions, relations, and mathematical induction. Algebraic structure of the real number system, order properties, and completeness.
(Re) Prerequisite(s): 142.

309 Putnam Preparation Seminar (1) Problem-solving activities designed to prepare students for the annual Putnam Exam.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 4 hours.
Registration Permission: Permission of instructor.

(Re) Prerequisite(s): 300.
(De) Prerequisite(s): 241 or 247.

341 Analysis I (3) Introduction to the theory of the real number system. Limits of sequences and functions of a real variable.
(Re) Prerequisite(s): 241 or 247.
351 Algebra I (3) Introduction to abstract algebra emphasizing integers and polynomial rings.
(RE) Prerequisite(s): 300.
(DE) Prerequisite(s): 251 or 257.

Credit Restriction: Students may not receive credit for both Mathematics 371 and Computer Science 370.
(RE) Prerequisite(s): 251.
(DE) Prerequisite(s): 251 or 257 or 200 and 241 or 247.
Comment(s): Knowledge of high-level programming language required.

399 Studies in Mathematics (1-3)
Repeatability: May be repeated. Maximum 9 hours.

400 History of Mathematics (3) Development of major ideas in mathematics from ancient to modern times and the influence of these ideas in science, technology, philosophy, art, and other areas. Includes at least one in-class essay examination and 3,000 words of writing outside the classroom. Writing-emphasis course.
(RE) Prerequisite(s): 300.
(DE) Prerequisite(s): 251 or 257.

403 Mathematical Methods for Engineers and Scientists (3) Matrix computations, numerical methods, partial differential equations, Sturm-Liouville Theory and special functions as used in engineering and science.
Credit Restriction: Does not satisfy requirements for the mathematics major.
(RE) Prerequisite(s): 231 and 241.
Comment(s): Knowledge of high-level programming language required.

404 Applied Vector Calculus (3) Topics from multivariable and vector calculus, including line and surface integrals, the divergence theorem, and the theorems of Gauss and Stokes.
(RE) Prerequisite(s): 241 or 247.

405 Models in Biology (3) Difference and differential equation models of biological systems.
(DE) Prerequisite(s): 142 or 148 or 152.

411 Mathematical Modeling (3) Construction and analysis of mathematical models used in science and industry. Projects emphasized. Writing-emphasis course.
(RE) Prerequisite(s): 231 and 241.
(DE) Prerequisite(s): 251 or 257.

421 Combinatorics (3) Introduction to problems of construction and enumeration for discrete structures, such as sequences, partitions, graphs, finite fields and geometries, and experimental designs.
(RE) Prerequisite(s): 323.

423 Probability (3) Axiomatic probability, univariate and multivariate distributions, conditional distributions and expectations, moment generating functions, laws of large numbers and central limit theorem.
(RE) Prerequisite(s): 323.

424 Stochastic Processes (3) Markov chains, Poisson processes and Brownian motion. Other topics as selected by instructor.
(RE) Prerequisite(s): 423.

425 Statistics (3) Standard statistical distributions, independence of mean and variance for a Gaussian sample, basic limit theorems; point and interval estimation, tests of statistical hypotheses, Neyman-Pearson theorem; likelihood ratio and other parametric and nonparametric tests.
(RE) Prerequisite(s): 423.

(RE) Prerequisite(s): 231.
(DE) Prerequisite(s): 200 or 251 or 257.

435 Partial Differential Equations (3) Separation of variables, Fourier series, solution of Laplace, wave, and heat equations.
(RE) Prerequisite(s): 231.
(DE) Prerequisite(s): 241 or 247.

443 Complex Variables (3) Introduction to the theory of functions of a complex variable, including residue theory and contour integrals.
(RE) Prerequisite(s): 241 or 247.

445 Advanced Calculus I (3) Introduction to the theory of sequences, series, differentiation, and Riemann integration of functions of one or more variables.
(RE) Prerequisite(s): 300.
(DE) Prerequisite(s): 241 or 247.

446 Advanced Calculus II (3) Continuation of 445.
(RE) Prerequisite(s): 445.
Mathematics Education (642) 485 Teaching of Mathematics, Grades 7-12 (3) Preparation of teaching plans, evaluation, and materials for teaching mathematics. Teaching simulation and directed observation in schools.

Registration Restriction(s): Qualification - admission to teacher education.


(RE) Prerequisite(s): Engineering Fundamentals 152 and Engineering Fundamentals 202.

(DE) Prerequisite(s): Mathematics 142.

321 Mechanics of Materials (3) Concepts of stress and strain; stress-strain relations; applications including axially loaded members, torsion of circular shafts, and bending of beams.

(RE) Prerequisite(s): Engineering Fundamentals 202.

(DE) Prerequisite(s): Mathematics 142.


(RE) Corequisite(s): Mathematics 241.


(RE) Prerequisite(s): 331 and 391.

(DE) Prerequisite(s): Aerospace Engineering 341.

345 Mechanical Engineering Instrumentation and Measurement (3) Fundamentals of measurement systems. Standards, dynamic characteristics of instruments, and statistical data treatment. Transducers, signal conditioning, strain, pressure, and temperature and flow measurements.

(RE) Prerequisite(s): Aerospace Engineering 341 and Electrical and Computer Engineering 301.

(DE) Prerequisite(s): Mathematics 363.

363 System Dynamics (3) Free and forced vibrations of damped and undamped lumped parameter systems. Transient and frequency response of lumped parameter systems. Introduction to feedback control systems.

(RE) Prerequisite(s): 231 and Mathematics 231.

(DE) Corequisite(s): Electrical and Computer Engineering 301 or 300.

(RE) Corequisite(s): 345 or Biomedical Engineering 430.


(RE) Prerequisite(s): 231.

366 Manufacturing Processes (3) Processes related to design of machine parts. Casting, hot and cold forming, metal removal, and welding. Manufacturing tolerances and surface finishes.

(RE) Prerequisite(s): Materials Science and Engineering 201.

391 Engineering Analysis (3) Numerical and analytical techniques are developed for problems arising in mechanical and aerospace engineering. Numerical methods address root finding, direct and indirect techniques for linear and nonlinear systems, interpolation, curve fitting, quadratures, and solutions to ordinary- and partial-differential equations. Analytic methods include Fourier series, solutions to linear systems of differential equations, and separation of variables. Computer projects are assigned for reinforcing classroom developments.

(RE) Prerequisite(s): Engineering Fundamentals 152 and Mathematics 231.

(DE) Prerequisite(s): Mathematics 251 or 200 and Engineering Fundamentals 230.

401 Thesis (3) Research and design problems in mechanical engineering with prior approval of instructor.

Registration Permission: Consent of instructor.


(RE) Prerequisite(s): Electrical and Computer Engineering 301.


Registration Permission: Consent of instructor.

410 Professional Development (2) Topics relating to professional responsibility and communications, and organization. Requires a formal oral presentation by each student on an engineering topic chosen by the student and approved by the instructor. (OC)

(OC) Prerequisite(s): English 102.

Registration Restriction(s): Minimum student level - senior.

449 Mechanical Engineering Laboratory (3) Designing, conducting, and reporting results of experimental exercises. Test standards and specifications. Analysis of data and formation of conclusions.

Contact Hour Distribution: 3 hours lab per week.

(RE) Prerequisite(s): 344 and 345.

(DE) Corequisite(s): 475.

450 Mechanical Engineering Design I (1-4) Design process, synthesis, and design studies.

Repeatability: Not repeatable for credit. May be taken once for 1-4 hours.

(RE) Corequisite(s): 466 or 475.

451 Control Systems (3) Analysis and design of feedback control systems using transient and frequency response techniques. Stability analysis in the time and frequency domain.

(RE) Prerequisite(s): 363.

452 Finite Element Analysis (3) Conversion of fundamental conservation principles in mechanics to simulation form via finite element implementation. Applications in heat transfer, solid mechanics, mechanical vibrations, fluid mechanics, and heat/mass transport. Extensive computer lab experiments using Matlab-based and commercial software systems.

(RE) Prerequisite(s): 321 and 344.

(DE) Prerequisite(s): 363.

457 Engineering Entrepreneurship (3) Technology and innovation, technology transfer, and patent protection. Legal formation and intellectual property, knowledge management, generation, and transmission. Creating a business plan and a marketing plan, launching a technology-based business. Sources of capital, small business growth and operations.

Registration Permission: Consent of instructor.

460 Mechanical Engineering Design II (1-4) Synthesis and design of a complete mechanical engineering system. Participation in team design effort, including formal oral presentations and written design report.

Repeatability: Not repeatable for credit. May be taken once for 1-4 hours.

(RE) Prerequisite(s): 463.


(RE) Prerequisite(s): 363.

466 Elements of Machine Design II (3) Application of strength and properties of materials. Design factors and theories of failure to design of machine elements. Mini-design experiences.

(RE) Prerequisite(s): 321 and Materials Science and Engineering 201.

467 Smart Structures and Materials (3) Fundamentals of electromechanical properties of ferroelectric materials (piezoelectric and ferrostrictive), shape memory alloys, and other electrically and magnetically activated materials with application. Course includes a semester project.

(RE) Prerequisite(s): 321 and 391.

475 Thermal Engineering (3) Thermal systems with emphasis on turbo-machinery, heat exchangers, gas-vapor mixtures, psychrometry, and fuels and combustion. Chemical equilibrium and system analysis and design.

(RE) Prerequisite(s): 344.

480 Introduction to Hybrid Electric Vehicles (3) Steady-state HEV force and power modeling. Introduction to internal combustion engines, motors, energy storage systems, and control strategies. Powertrain design and analysis using various computer simulation tools.

(OC) Corequisite(s): 475.

483 Introduction to Reliability Engineering (3) (See Nuclear Engineering 483.)

484 Introduction to Maintainability Engineering (3) (See Nuclear Engineering 484.)

494 Selected Topics in Mechanical Engineering (1-4) Problems and topics related to developments and practice in mechanical engineering.

Repeatability: Not repeatable for credit. May be taken once for 1-4 hours.

Registration Permission: Consent of instructor.

495 Selected Topics in Mechanical Engineering (1-4) Problems and topics related to developments and practice in mechanical engineering.

Repeatability: Not repeatable for credit. May be taken once for 1-4 hours.

Registration Permission: Consent of instructor.

Medieval Studies (674) 201 Medieval Civilization (3) Introduction to basic themes in the medieval experience approached from interdisciplinary points of view and including philosophy and religion, art and architecture, language and literature, and social and political history. Writing-emphasis course. (CC)
202 Medieval Civilization (3) Introduction to basic themes in the medieval experience approached from interdisciplinary points of view and including philosophy and religion, art and architecture, language and literature, and social and political history. Writing-emphasis course. (CC)

261 Medieval Culture: Readings from the Early Middle Ages, 500-1000 (3) Critical analysis and interpretation of selected works from the early medieval period. Focuses on major types of literature produced during the period 500-1000 AD, e.g., cultural, religious, rhetorical, lyric, epic, biographical. Includes Augustine’s Confessions, Boethius’ Consolation, St. Gregory’s Life of St. Benedict, The Life of Charlemagne, etc. Writing-emphasis course.

262 Medieval Culture: Readings from the Later Middle Ages, 1000-1500 (3) Critical analysis and interpretation of selected works from the later medieval period. Focuses on romantic, allegorical, and mystical writings from the high and later Middle Ages, e.g., the Song of the Nibelungen, the Romance of the Rose, St. Bernard’s Commentary on the Song of Songs, Peter Abelard’s History of My Calamities. Writing-emphasis course.

(ES) Prerequisite(s): 261.

312 Medieval History (3) (See History 312.)

313 Medieval History (3) (See History 313.)

322 Medieval Philosophy (3) (See Philosophy 322.) (WC)

401 Dante and Medieval Culture (3) (See Italian 401.)

402 Petrarch and Boccaccio (3) (See Italian 402.)

403 Seminar in Medieval Studies (3) Interdisciplinary treatment of selected topics. Content varies. Writing-emphasis course.

Repeatability: May be repeated. Maximum 6 hours.

405 Medieval Literature (3) (See English 401.)

406 Chaucer (3) (See English 402.)

410 Medieval French Literature (3) (See French 410.)

415 Medieval Architecture (3) (See Architecture 415.)

431 Medieval Art of the West, 800-1400 (3) (See Art History 431.)

441 Northern European Painting, 1350-1600 (3) (See Art History 441.)

451 The Art of Italy, 1250-1450 (3) (See Art History 451.)

475 Ancient and Medieval Political Thought (3) (See Political Science 475.)

491 Foreign Study (1-15)

Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15)

Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15)

Repeatability: May be repeated. Maximum 15 hours.

Microbiology (684)

209 Global Medicine and Emerging Infectious Diseases (3) Investigation into the biology, microbiology, geography, economics, and politics of international health with an emphasis on emerging infectious diseases.

Registration Restriction(s): Minimum student level – sophomore.

210 General Microbiology (3) General properties of bacteria and viruses, including physiology, metabolism, genetics, applied bacteriology, pathogenesis, and immunity. (NS)

Contact Hour Distribution: 2 hours and 2 labs.

Credit Restriction: May not be applied toward the microbiology concentration.

310 Introduction to Microbiology (3) Introduction to bacteria and viruses, including physiology, metabolism, genetics of bacteria, replication and expression of viruses, bacterial and viral pathogenicity, and mechanisms of resistance to disease.

(RE) Prerequisite(s): Biology 140.

(RE) Corequisite(s): Biology 240.

319 Introductory Microbiology Laboratory (2) Basic techniques for the examination, cultivation, and identification of microorganisms.

(RE) Corequisite(s): 310.

320 Advanced Microbiology (3) Cell and molecular biology of microorganisms. Principles and applications in modern technological society. Intended for students in the microbiology concentration.

(RE) Prerequisite(s): 310.

329 Advanced Microbiology Laboratory (2) Laboratory exercises designed to accompany 320.

(RE) Prerequisite(s): 319.

(RE) Corequisite(s): 320.

400 Laboratory Problems in Microbiology (2-4) Research projects under the direction of a faculty member.

Grading Restriction: Satisfactory/No Credit grading only.

Repeatability: May be repeated. Maximum 9 hours.

Credit Restriction: May not be applied toward the major.

Registration Permission: Consent of instructor.

401 Undergraduate Research in Microbiology (3) Research experience in laboratory of faculty member with faculty committee guidance.

(DE) Prerequisite(s): 310, 319, 320, and 329.

Registration Restriction(s): Minimum student level – junior.

Registration Permission: Consent of instructor and department head.

402 Advanced Undergraduate Research in Microbiology (4) Supervised research. May be taken to satisfy honors thesis.

(DE) Prerequisite(s): 401.

Registration Restriction(s): May not be applied toward the major.

Registration Permission: Consent of instructor and department head.

410 Microbial Physiology (3) Examination of concepts in microbial physiology and the structure and function of microbial cells.

(DE) Prerequisite(s): 310.

(DE) Corequisite(s): Biochemistry and Cellular and Molecular Biology 401.


(DE) Prerequisite(s): 310.

420 Microbial Pathogenesis (3) A broad study of host-pathogen relationships including the biochemical, cellular, genetic, genomic and evolutionary factors which play a role in microbial pathogenesis.

(DE) Prerequisite(s): 310.

429 Medical Microbiology Laboratory (2) Laboratory exercises in medically important areas of microbiology including microorganisms, pathogenesis, and immunology.

(RE) Prerequisite(s): 319 and 430.

(RE) Corequisite(s): 420.

430 Immunology (3) Principles of inflammation and immunity, immunoglobulin structure, and theories of formation and diversity. Complement, hypersensitivities, cell cooperation and recognitions in immune mechanisms; and soluble factors.

(RE) Prerequisite(s): Biology 240.

440 Virology (3) Pathogenesis and molecular biology of viruses.

(RE) Prerequisite(s): 310.

470 Microbial Ecology (3) Physiological diversity and taxonomy of microorganisms from natural environments. Emphasis on the functional role of microorganisms in natural and simulated ecosystems.

(RE) Prerequisite(s): 310.

480 Genomics and Bioinformatics (3) Fundamentals of a new scientific discipline based on sequencing genomes (entire DNA) of individual organisms. Goals, principles, and types of genome analysis are covered in a traditional lecture course. Computational tools for genome analysis (bioinformatics) are presented in both lecture and hands-on (computer laboratory) settings.

Credit Restriction: Students may not receive credit for both 480 and 540.

(RE) Prerequisite(s): Biology 240.

491 Foreign Study (1-9)

Repeatability: May be repeated. Maximum 9 hours.

492 Off-Campus Study (1-9)

Repeatability: May be repeated. Maximum 9 hours.

493 Independent Study (1-9)

Repeatability: May be repeated. Maximum 9 hours.

495 Senior Seminar (1-3)

In-depth consideration of microbiological problems of current interest requiring an integration of two or more disciplines. Emphasis on original literature and the experimental basis of current knowledge. Historical background, impact on society, predictions of the future, and the basis of moral and ethical judgments. Written reports are required. A capstone course.

Registration Permission: Consent of instructor.

Registration Restriction(s): Minimum student level – senior.
Military Science and Leadership (689)

101 Foundations of Officership (2) Discusses organization and role of the Army. Emphasizes basic life skills pertaining to fitness and communication. Introduces and expected ethical behavior. Adventure training skills lab introduces land navigation, rifle marksmanship, mountaineering, and optional field-training exercises.
Grading Restriction: Letter grade only.

102 Basic Leadership (2) Develops basic skills that underlie effective problem solving. Examines factors that influence leader and group effectiveness. Emphasizes communication skills to include active-listening and feedback techniques. Adventure training skills lab introduces land navigation, rifle marksmanship, mountaineering, and optional field-training exercises.
Grading Restriction: Letter grade only.

103 Army ROTC Fitness Program (1) Develops individual muscular strength, muscular endurance, and cardio-respiratory endurance. Classes are divided into groups based on ability and exercises are geared toward personal improvement. Primary evaluation is the Army Physical Fitness Test which consists of pushups, sit-ups and a two-mile run.
Repeatability: May be repeated. Maximum 8 hours.

200 Leader's Training Course (4) A 28-day leadership practicum at Fort Knox, Kentucky. Familiarizes students with Army physical fitness, land navigation, rifle marksmanship, and military problem-solving/decision-making.

201 Individual Leadership Studies (3) Develops knowledge of self, self-confidence, and leadership skills. Concentrates on problem-solving skills. Emphasizes communication skills such as feedback and conflict resolution. Adventure training skills lab introduces land navigation, rifle marksmanship, mountaineering, and optional field-training exercises.
Grading Restriction: Letter grade only.

202 Leadership and Teamwork (3) Focuses on self-development through understanding of self and group processes. Examines leadership through group projects and historical case studies. Adventure training skills lab introduces land navigation, rifle marksmanship, mountaineering, and optional field training exercises.
Grading Restriction: Letter grade only.

301 Leadership and Problem Solving (4) Examines the basic skills that underlie effective problem solving. Analyzes the role of Army officers played in the transition of the Army from Vietnam to the 21st century. Instruction on analyzing and planning military operations. Emphasis on small unit tactics with a concentration on squad battle drills. Lab practicum concentrates on competency in land navigation, rifle marksmanship, and small unit operations. Requires 3 or more years of JROTC participation or completion of basic training.
Contact Hour Distribution: 3 hours and 1 lab.
Grading Restriction: Letter grade only.
(RED) Prerequisite(s): 301 and 302.
Registration Restriction(s): 2.00 GPA.

302 Leadership and Ethics (4) Probes leader responsibilities that foster an ethical command climate. Applies principles of effective writing and oral communication. Builds on previous instruction to further develop leadership competencies. Lab practicum concentrates on preparation for Military Science and Leadership 400 National Advanced Leaders Camp. Emphasis on land navigation, rifle marksmanship, and small unit operations.
Grading Restriction: Letter grade only.
(RED) Prerequisite(s): 301.

303 Military History (3) Primary emphasis on 21st-century warfare. Examines critical thinking in the study of military history and the relevance of military history to the modern day professional soldier. Provides framework for lifetime study of military history.
Grading Restriction: Letter grade only.

400 National Advanced Leadership Camp (4) A 31-day leadership practicum held at Fort Lewis, Washington. Students are evaluated in varied leadership positions, rifle marksmanship, land navigation, field leadership reaction course, and tactical small unit leadership.
Grading Restriction: Letter grade only.
(RED) Prerequisite(s): 301 and 302.

401 Leadership and Management (4) Discusses Army staff organization, functions, and processes. Analyses counseling responsibilities and methods. Examines principles of subordinate motivation and organizational change. Applies leadership and problem-solving principles to complex case studies and simulation.
Contact Hour Distribution: 3 hours and 1-hour lab.
Grading Restriction: Letter grade only.
(RED) Prerequisite(s): 301 and 302.

402 Officership (4) A capstone course designed to explore topics relevant to second lieutenants entering the Army. Examines common platoon leader actions. Discusses leader responsibilities and actions that foster an ethical command climate. Familiarizes students with Army administrative and logistics management functions. Examines legal aspects of decision-making and leadership.
Contact Hour Distribution: 3 hours and 1-hour lab.
Grading Restriction: Letter grade only.
(RED) Prerequisite(s): 301 and 302.
(ED) Prerequisite(s): 401.

430 U.S. Military History, 1754 to the present (3) (See History 451.)

493 Military Leadership Topics (1) Topics on principles and styles of military leadership. Students conduct in-depth profile of a contemporary or historic military leader.
Grading Restriction: Letter grade only.
Repeatability: May be repeated. Maximum 4 hours.
Registration Permission: Consent of instructor.

Modern Foreign Languages and Literatures (686)

199 Language and World Business (2) Examines the importance of foreign trade at the local, state, and national levels. Interdisciplinary faculty from the Colleges of Business Administration and Arts and Sciences provide an overview of the value of language study and international cultural awareness in the program in world business. See Director for further information.

482 Special Topics in Global Cinema (3) Content varies. Focus from global perspectives on directors, stars, film genres, national and regional cinema movements or other topics. Taught in English.
Writing-emphasis course. (Same as Cinema Studies 482; Global Studies 482.)
Repeatability: May be repeated. Maximum 6 hours.

Music Education (707)

200 Conducting Laboratory (1) A laboratory course designed to afford conducting opportunities for student conductors and to acquaint students with a variety of music literature.
Grading Restriction: Letter grade only.
Repeatability: May be repeated. Maximum 3 hours.

210 Class Woodwind Methods I (1) Structure, use, and techniques of playing. Care and repair of the oboe and bassoon in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.

211 Class Woodwind Methods II (1) Structure, use, and techniques of playing. Care and repair of the flute and saxophone in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.

212 Class Woodwind Methods III (1) Structure, use, and techniques of playing. Care and repair of the oboe and bassoon in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.

220 Class Brass Methods I (1) Structure, use, and techniques of playing. Care and repair of the upper brass instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.

221 Class Brass Methods II (1) Structure, use, and techniques of playing. Care and repair of the lower brass instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.
230 Class Percussion Methods I (1) Structure, use, and techniques of playing. Care and repair of principal instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.

240 Class String Methods I (1) Structure, use, and techniques of playing. Care and repair of upper string instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.

241 Class String Methods II (1) Structure, use, and techniques of playing. Care and repair of lower string instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials.
Grading Restriction: Letter grade only.

250 Functional Piano for Teachers (1) Practical piano skills for the general/vocal teacher who does not have a keyboard instrument as the applied principal. Transposition, improvisation, reading open vocal scores, and simple accompaniments.
Grading Restriction: Letter grade only.
Repeatability: May be repeated. Maximum 2 hours.

251 Functional Piano for Teachers II (1) Application of skills and techniques acquired in Music Education 250 to playing and transposing familiar school songs, choral accompaniments, and open scores. Creation of arrangements for singing and movement exercises, listening activities, and playing instruments in various styles.
(Re) Prerequisite(s): 250.

260 Eurhythmics (1) Principles and practice of eurhythmics as developed by Emile Jaques-Dalcroze.
Grading Restriction: Letter grade only.
Repeatability: May be repeated. Maximum 2 hours.

Grading Restriction: Letter grade only.
(Re) Prerequisite(s): Music Theory 220.

320 Conducting II (2) Developing advanced baton technique. Multiple rhythms, modern beat patterns and their variations. Studying, analyzing, and interpretation of the full score. Achieving complete physical control. Rehearsal techniques. Conducting live groups in advanced works.
Grading Restriction: Letter grade only.
(Re) Prerequisite(s): 310.

330 Music Methods for the Elementary School (3) Methods and materials for teaching music in the elementary grades.
Grading Restriction: Letter grade only.
Registration Restriction(s): Qualification admission to teacher education.

340 General/Vocal Music Methods (3) School methods and materials for teaching music in the elementary, middle, and high schools.
Grading Restriction: Letter grade only.
Registration Restriction(s): Qualification admission to teacher education.

350 Field Experience in Music Education (1)
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 3 hours.
Registration Restriction(s): Qualification admission to teacher education.
Registration Permission: Consent of instructor.

400 Student Teaching in Music (12) Full-time teaching practicum in an approved public school.
(Re) Corequisite(s): 401.
Recommended Background: Completion of all music education courses required for the Bachelor of Music — music major/music education concentration (4-year alternative).
Registration Permission: Consent of instructor.

401 Senior Seminar (0) Issues related to the music teaching profession as experienced in student teaching.
(Re) Corequisite(s): 400.
Registration Permission: Consent of instructor.

420 Music Methods for the Junior High School and Middle School (3) Methods and materials for teaching vocal, instrumental, and general music at the junior high school or middle school level.
Grading Restriction: Letter grade only.
Registration Restriction(s): Qualification admission to teacher education.
Registration Permission: Consent of instructor.

430 Music Methods for High School (3) Methods and materials for vocal and instrumental music at the high school level, including charting for the marching band. (WC)
Grading Restriction: Letter grade only.
Registration Permission: Consent of instructor.

440 Marching Band Techniques (2) Functions, organization, and direction of a school marching band.
Grading Restriction: Letter grade only.

441 String Orchestra Pedagogy and Rehearsal Techniques (2) Function, organization, and direction of a school orchestra program.
Grading Restriction: Letter grade only.
Registration Restriction(s): Qualification admission to teacher education.

482 Internship II: Grades K-12 (3-6) Demonstration of professional competence in planning, instruction, and classroom management. Internship is completed in local public schools.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 12 hours.
Registration Permission: Consent of instructor.

490 Special Topics in Music Education (1-3)
Grading Restriction: Letter grade only.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

493 Independent Study in Music Education (1-5)
Grading Restriction: Letter grade only.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

Music Ensemble (708)

301 Woodwind Choir (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

303 Small Jazz Ensemble (1)
Repeatability: May be repeated. Maximum 12 hours.
Comment(s): Audition or consent of instructor required.

304 Jazz Ensemble (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

305 Studio Orchestra (1)
Repeatability: May be repeated. Maximum 12 hours.
Comment(s): Audition or consent of instructor required.

306 Trombone Choir (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

309 Tuba Ensemble (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

310 Percussion Ensemble (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

311 Marimba Choir (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

315 Chamber Music Ensemble (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

320 UT Singers (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

330 Chamber Singers (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

340 Opera Theatre (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

350 Concert Band (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

352 Symphonic Band (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.

353 Wind Ensemble (1)
Repeatability: May be repeated. Maximum 14 hours.
Comment(s): Audition or consent of instructor required.
354 Pep Band (1)  
Repeatability: May be repeated. Maximum 14 hours.  
(Re) Prerequisite(s): Consent of department head required.

359 Marching Band (1)  
Repeatability: May be repeated. Maximum 14 hours.  
(Re) Prerequisite(s): Consent of department head required.

370 Symphony Orchestra (1)  
Repeatability: May be repeated. Maximum 14 hours.  
(Re) Prerequisite(s): Consent of department head required.

380 Concert Choir (1)  
Repeatability: May be repeated. Maximum 14 hours.  
(Re) Prerequisite(s): Consent of department head required.

383 Men’s Chorale (1)  
Repeatability: May be repeated. Maximum 14 hours.  
(Re) Prerequisite(s): Consent of department head required.

389 Women’s Chorale (1)  
Repeatability: May be repeated. Maximum 14 hours.  
(Re) Prerequisite(s): Consent of department head required.

399 Accompanying (1)  
Repeatability: May be repeated. Maximum 14 hours.  
(Re) Prerequisite(s): Consent of department head required.

Music General (698)  

101 Fundamentals of Performance (1-2)  
Private instrumental or vocal study, one or two halves per week. This course is designed to prepare students for enrollment in Music Performance 103-195. Requires payment of applied music fees.  
Grading Restriction: A, B, C, No Credit grading.  
Repeatability: May be repeated. Maximum 12 hours.  
Credit Restriction: Cannot be used to satisfy applied music requirements at the principal level for the music major (Bachelor of Music or the Bachelor of Arts).  
Comment(s): Audition or consent of instructor required.

200 Solo Class (0)  
Repeatability: May be repeated. Maximum 14 times.  
Grading Restriction: Satisfactory/No Credit grading only.

301 Junior Recital (0)  
Repeatability: Not repeatable.  
(Re) Corequisite(s): Music Theory 140.  
(Re) Corequisite(s): Music Theory 240.  
Recommended Background: 400-level (or above) music performance course.

310 Practical Experience in Arts Management (3)  
Arts management practicum with approved arts organization. Individualized work with music instructor in conjunction with supervised experience in arts organization management.  
Repeatability: May be repeated. Maximum 6 hours.  
(Re) Prerequisite(s): For music majors only.

401 Senior Recital (0)  
Repeatability: Not repeatable.  
(Re) Prerequisite(s): Music Theory 120 and Musicology 200.  
(Re) Prerequisite(s): Music Theory 220.  
Recommended Background: 200-level (or above) music performance course.

411 Lecture Recital (0)  
Repeatability: Not repeatable.  
(Re) Prerequisite(s): Music Theory 120 and Musicology 200.  
Recommended Background: 200-level (or above) music performance course.

421 Special Topics in Performance (1-3)  
Repeatability: May be repeated. Maximum 4 hours.  
Registration Permission: Consent of department head.

431 Special Topics in Pedagogy (1-3)  
Repeatability: May be repeated. Maximum 4 hours.  
Registration Permission: Consent of department head.

495 Sacred Music Internship (3)  
Observation, participation, and supervised leadership experience in the music program of an approved local church.  
Grading Restriction: Satisfactory/No Credit grading only.  
Registration Restriction(s): Bachelor of Music – music major/sacred music concentration; minimum student level – senior.

Music Instrumental (710)  

310 Brass Literature and Pedagogy (3)  
Survey of brass solo and ensemble literature, including instructional materials and methods. Application of pedagogical procedures to individual instruction and performance. Demonstration lessons by applied brass faculty and class members.  
Registration Permission: Consent of instructor.

320 Woodwind Literature and Pedagogy (3)  
Survey of woodwind solo and ensemble literature, including instructional materials and methods. Application of pedagogical procedures to individual instruction and performance. Demonstration lessons by applied woodwind faculty and class members.  
Registration Permission: Consent of instructor.

330 Percussion Literature and Pedagogy (3)  
Survey of percussion solo and ensemble literature, including instructional materials and methods. Application of pedagogical procedures to individual instruction and performance. Demonstration lessons by applied woodwind faculty and class members.  
Registration Permission: Consent of instructor.

340 String Literature and Pedagogy I (3)  
Survey of string techniques, issues, research, and pedagogies. Topical presentations by the applied string faculty and guests.

350 String Literature and Pedagogy II (3)  
Development of the violin family of instruments and bows. Survey of string literature, performance, and performance styles. Application of historical, analytical, and pedagogical procedures to performance.  
(Re) Prerequisite(s): 340.  
Recommended Background: 300-level (or above) music performance course required.

360 Orchestral Repertoire (1)  
An intensive weekly master class focused on the performance of standard orchestral repertoire used in most orchestral auditions.  
Repeatability: May be repeated. Maximum 12 hours.  
Recommended Background: 300-level (or above) music performance course required.  
Registration Permission: Consent of instructor.

490 Instrumental Conducting (3)  
Knowledge and skills in instrumental conducting. Various periods and composers and relationship of different styles to the conductor’s art. Musical analysis and practice in conducting.  
(Re) Prerequisite(s): Music Education 320.

Music Jazz (711)  

110 Jazz Theory (2)  
Fundamentals of the jazz language, including terminology, chord symbols, chord/scales, and chord progressions, plus ear training lab.  
(Re) Prerequisite(s): Music Theory 110.

120 Analysis of Jazz Styles (2)  
Individual improvisatory styles through analysis of their transcribed solos. Training and function of the ear in music. Transcription of solos from recordings and preparation of analysis.  
(Re) Prerequisite(s): 110.

130 Jazz Piano I (1)  
Harmonic language of jazz. Interpretation of chord symbols, formulae for voicing chords, chord progressions, and fundamental melody-playing and improvisation for right hand.  
(Re) Prerequisite(s): 110.

140 Jazz Piano II (1)  
Harmonic language of jazz. Interpretation of chord symbols, formulae for voicing chords, chord progressions, and construction of bass lines.  
(Re) Prerequisite(s): 110.

210 Jazz Improvisation I (2)  
Study of application and principles of improvisation, including nomenclature, chord progressions, chord-scales, patterns, melodic development, and tune styles.  
(Re) Prerequisite(s): 210.

220 Jazz Improvisation II (2)  
Study of application and principles of improvisation, including nomenclature, chord progressions, chord-scales, patterns, melodic development, and solo transcription.  
(Re) Prerequisite(s): 210.

310 Jazz Composition and Arranging (2)  
Composing and arranging in the jazz idiom.  
Registration Permission: Consent of instructor.

320 Jazz Band Arranging (2)  
Arranging and scoring for the Big Jazz Band.  
(Re) Prerequisite(s): Music Technology 340.

410 Advanced Improvisation (3)  
Development of individual skills and solving individual problems in jazz improvisation.  
(Re) Prerequisite(s): 220.  
Recommended Background: Bachelor of Music – music major/studio music and jazz concentration.

420 Jazz Pedagogy (1)  
Methods and materials relating to teaching of jazz, designing and administering jazz programs, and rehearsal techniques for jazz ensembles.  
Registration Restriction: Bachelor of Music – music major/studio music and jazz concentration.
Music Keyboard (712)

110 Class Piano I (1) Development of keyboard skills in keyboard reading, improvisation, harmonization, transposition, technique, and repertoire.
   Registration Restriction: Bachelor of Music – music major or Bachelor of Arts – music major.

120 Class Piano II (1) Keyboard skills in reading two keyboard textures, improvisation, harmonization, transposition, technique, and accompaniments.
   (RE) Prerequisite(s): 110.

210 Class Piano III (1) Keyboard skills in reading hymn texture, improvisation, harmonizing with secondary dominants, transposition, and accompaniments for major instrument.
   (RE) Prerequisite(s): 120.

220 Class Piano IV (1) Completes the piano competency requirement.
   Open score reading, 203 accompaniments for the major instrument.
   (RE) Prerequisite(s): 210.

230 Keyboard Harmony (1) Melody harmonization, figured bass realization, and improvisation.
   (RE) Prerequisite(s): Music Theory 120.

340 Piano Pedagogy I (3) Survey of elementary pedagogical methods and materials with emphasis on learning styles for motivation and reading both lead sheet and notation systems. Collateral teaching experience.

350 Piano Pedagogy II (3) Survey of intermediate pedagogical materials and methods with emphasis on how to empower the student to play musically, to improvise, and to read in several keyboard textures. Collateral teaching experience.
   (RE) Prerequisite(s): 340.

360 Piano Pedagogy III (3) Intermediate to advanced methods and materials related to the development of principals of learning.
   (RE) Prerequisite(s): 350.

370 Piano Pedagogy IV (3) Discussion of problems and experiences in teaching practicum. Observation of teaching of all ages. Overview of the business aspects of private teaching.
   (RE) Prerequisite(s): 360.

410 Organ Practicum (1) Improvisation, hymn playing, and accompanying on the organ.
   Repeatability: May be repeated. Maximum 3 hours.
   Recommended Background: Organ proficiency at the 200 level.

420 Piano Literature I (3) From 1750 to the middle 19th century.

430 Piano Literature II (3) Middle 19th century to the present.

460 The Organ and Its Literature I (3) Development of the organ and organ literature from the Middle Ages to approximately 1750. Problems of style and interpretation. Pedagogical literature and methods.
   (RE) Corequisite(s): Musicology 110.
   Registration Permission: Consent of instructor.

470 The Organ and Its Literature II (3) Development of the organ and organ literature from 1750 to the present. Problems of style and interpretation. Pedagogical literature and methods.
   (RE) Corequisite(s): Musicology 110.

480 Teaching Class Piano (3) Historical survey and evaluation of teaching materials and methodology for college and/or adult beginning piano classes with collateral teaching experience.
   Registration Permission: Consent of instructor.

485 Suzuki Piano Method I (2) Study of the philosophy, procedures, and literature of the Suzuki Piano Method Books 1 and 2.
   Registration Permission: Consent of instructor.

490 Internship (2) Opportunity for pedagogy students to gain experience in teaching beginning students under the supervision of experienced instructors.
   Contact Hour Distribution: Includes weekly discussion seminars.

491 Internship (2) Opportunity for pedagogy students to gain experience in teaching beginning students under the supervision of experienced instructors.
   Contact Hour Distribution: Includes weekly discussion seminars.

495 Suzuki Piano Method II (2) Study of procedures and literature of the Suzuki Piano Method Books 3 and above.
   (RE) Prerequisite(s): 485.

Music Performance (713)

103 Flute (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): Music General 101.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition and registration for ensemble appropriate to degree program.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

104 Flute (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (RE) Prerequisite(s): 103.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 103.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

105 Oboe (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): Music General 101.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition and registration for ensemble appropriate to degree program.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

106 Oboe (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (RE) Prerequisite(s): 105.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition and registration for ensemble appropriate to degree program.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

110 Bassoon (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): Music General 101.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition and registration for ensemble appropriate to degree program.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

111 Bassoon (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): 110.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 110.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

115 Clarinet (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): Music General 101.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition and registration for ensemble appropriate to degree program.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

116 Clarinet (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): 115.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 115.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

120 Saxophone (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): Music General 101.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition and registration for ensemble appropriate to degree program.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

121 Saxophone (1-3)
   Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
   (DE) Prerequisite(s): 120.
   (RE) Corequisite(s): Music General 200.
   Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 120.
   Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.
125 Horn (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

126 Horn (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 125.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 125.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

130 Trumpet (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

131 Trumpet (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 130.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 130.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

135 Trombone (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

136 Trombone (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 135.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 135.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

140 Baritone (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

141 Baritone (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 140.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 140.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

145 Tuba (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

146 Tuba (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 145.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 145.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

150 Percussion (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

151 Percussion (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 150.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 150.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

155 Voice (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

156 Voice (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 155.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

160 Violin (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

161 Violin (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 160.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

165 Viola (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

166 Viola (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 165.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 165.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

170 Cello (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(DE) Prerequisite(s): Music General 101.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

171 Cello (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(RE) Prerequisite(s): 170.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 170.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.
172 Electric Bass (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(De) Prerequisite(s): Music General 101.
(Re) Prerequisite(s): Music General 101.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

173 Electric Bass (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(Re) Prerequisite(s): 172.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program, and C or higher in 172.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

174 String Bass (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(De) Prerequisite(s): Music General 101.
(Re) Prerequisite(s): Music General 101.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

175 String Bass (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(Re) Prerequisite(s): 174.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 174.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

180 Piano (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(De) Prerequisite(s): Music General 101.
(Re) Prerequisite(s): Music General 101.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.

181 Piano (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(Re) Prerequisite(s): 180.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 180.

183 Guitar (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(De) Prerequisite(s): Music General 101.
(Re) Prerequisite(s): Music General 101.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major/studio music and jazz concentration.

184 Guitar (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(Re) Prerequisite(s): 183.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 183.
Registration Restriction(s): Bachelor of Music – music major/studio music and jazz concentration.

185 Harpsichord (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(De) Prerequisite(s): Music General 101.
(Re) Prerequisite(s): Music General 200.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

186 Harpsichord (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(Re) Prerequisite(s): 185.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 185.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

189 Organ (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(De) Prerequisite(s): Music General 101.
(Re) Prerequisite(s): Music General 101.
Comment(s): Requires audition and registration for ensemble appropriate to degree program.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

190 Organ (1-3)
Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.
(Re) Prerequisite(s): 189.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 189.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

203 Flute (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 104.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 104.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

204 Flute (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 106.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 106.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

205 Oboe (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 105.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 105.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

206 Oboe (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 105.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 106.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

211 Bassoon (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 111.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 111.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

212 Bassoon (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 210.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 210.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

215 Clarinet (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 116.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 116.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

216 Clarinet (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(Re) Prerequisite(s): 215.
(Re) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 215.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.
220 Saxophone (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 126.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 126.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

221 Saxophone (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 220.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 220.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

225 Horn (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 126.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 126.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

250 Percussion (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 151.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 151.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

256 Voice (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 255.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 255.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

260 Violin (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 161.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 161.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

265 Viola (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 166.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 166.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

266 Viola (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 265.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 265.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

240 Baritone (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 141.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 141.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

241 Baritone (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 240.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 240.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

245 Tuba (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 146.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 146.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

246 Tuba (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 245.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 245.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

265 Viola (1-3)
Repeatability: May be repeated by non-BM students. Maximum 8 hours.
(RE) Prerequisite(s): 166.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 166.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.
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<tr>
<th>COURSES OF INSTRUCTION</th>
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<tr>
<td>270 Cello (1-3)</td>
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<td>272 Electric Bass (1-3)</td>
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<td>283 Guitar (1-3)</td>
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<td>Registration Restriction(s): Bachelor of Music – music major/studio music and jazz concentration.</td>
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<td>284 Guitar (1-3)</td>
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<td>Registration Restriction(s): Bachelor of Music – music major/studio music and jazz concentration.</td>
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<td>285 Harpsichord (1-3)</td>
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<td>286 Harpsichord (1-3)</td>
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<td>289 Organ (1-3)</td>
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<td>290 Organ (1-3)</td>
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<td>294 Composition (1-3)</td>
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<td>Repeatability: Not repeatable for credit. May be taken once for 1-3 hours.</td>
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<td>295 Composition (1-3)</td>
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<td>303 Flute (1-3)</td>
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<td>304 Flute (1-3)</td>
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<td>305 Oboe (1-3)</td>
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<td>306 Oboe (1-3)</td>
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310 Bassoon (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 211.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 211.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

311 Bassoon (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 310.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 310.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

315 Clarinet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 216.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 216.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

316 Clarinet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 315.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 315.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

320 Saxophone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 221.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 221.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

321 Saxophone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 320.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 320.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

325 Horn (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 226.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 226.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

326 Horn (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 325.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 325.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

330 Trumpet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 231.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 231.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

331 Trumpet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 330.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 330.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.
360 Violin (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 261.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 261.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

361 Violin (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 360.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 360.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

365 Viola (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 266.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 266.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

366 Viola (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 365.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 365.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

370 Cello (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 271.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 271.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

371 Cello (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 370.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 370.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

372 Electric Bass (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 273.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 273.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

373 Electric Bass (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 372.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 372.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

374 String Bass (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 275.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 275.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

375 String Bass (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 374.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 374.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

380 Piano (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 281.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 281.

381 Piano (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 380.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 380.

385 Harpsichord (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 284.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 284.
Registration Restriction(s): Bachelor of Music – music major/Studio music and jazz concentration.

386 Harpsichord (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 385.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 385.

389 Organ (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 290.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 290.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

390 Organ (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 389.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 389.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

394 Composition (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 295.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 295.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

395 Composition (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 394.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 394.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.
### 396 Composition with Electronic Media
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): Music Theory 210 and Music Theory 230.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in Music Theory 210 and Music Theory 230.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 403 Flute (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 404.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 304.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 404 Flute (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 403.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 403.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 405 Oboe (1-3)
Repeatability: May be repeated. Maximum 8 hours.
RE) Prerequisite(s): 306.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 306.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 406 Oboe (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 405.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 405.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 410 Bassoon (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 311.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 311.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 411 Bassoon (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 410.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 410.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 415 Clarinet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 316.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 316.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 416 Clarinet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 415.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 415.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 420 Saxophone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 321.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 321.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 421 Saxophone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 420.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 420.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 425 Horn (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 326.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 326.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 426 Horn (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 425.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 425.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 430 Trumpet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 331.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 331.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 431 Trumpet (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 430.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 430.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 435 Trombone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 336.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 336.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 436 Trombone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 435.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 435.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 440 Baritone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 341.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 341.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 441 Baritone (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 440.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 440.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

### 445 Tuba (1-3)
Repeatability: May be repeated. Maximum 8 hours.
(RE) Prerequisite(s): 346.
(RE) Corequisite(s): Music General 200.
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 346.
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Repeatability</th>
<th>Registration Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>456 Tuba (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 445.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 445.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>450 Percussion (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 351.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 351.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>451 Percussion (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 450.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 450.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>455 Voice (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 356.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 356.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>456 Voice (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 455.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 455.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>460 Violin (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 361.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 361.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>461 Violin (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 360.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 360.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>465 Viola (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 366.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 366.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>466 Viola (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 365.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 365.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>470 Cello (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 371.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 371.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>471 Cello (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 470.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 470.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>472 Electric Bass (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 373.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 373.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>473 Electric Bass (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 472.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 472.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>474 String Bass (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 375.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 375.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>475 String Bass (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 474.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 474.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>480 Piano (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 381.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 381.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>481 Piano (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 480.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 480.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>483 Guitar (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 384.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 384.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>484 Guitar (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 383.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 383.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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<tr>
<td>485 Harpsichord (1-3)</td>
<td>Repeatability: May be repeated. Maximum 8 hours.</td>
<td>(RE) Prerequisite(s): 386.</td>
<td>(RE) Corequisite(s): Music General 200.</td>
<td>Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 386.</td>
<td>Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.</td>
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</tbody>
</table>
486 Harpsichord (1-3)  
Repeatability: May be repeated. Maximum 8 hours.  
(RE) Prerequisite(s): 395.  
(RE) Corequisite(s): Music General 200.  
Comment(s): Grade of C or higher in 395 is required.  
Grading Restriction: A, B, C, No Credit grading.  
Contact Hour Distribution: Includes lab hours.  
Comment(s): Recommended as a review course for graduate students.

489 Organ (1-3)  
Repeatability: May be repeated. Maximum 8 hours.  
(RE) Prerequisite(s): 390.  
(RE) Corequisite(s): Music General 200.  
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 390.  
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

490 Organ (1-3)  
Repeatability: May be repeated. Maximum 8 hours.  
(RE) Prerequisite(s): 489.  
(RE) Corequisite(s): Music General 200.  
Comment(s): Requires audition, registration for ensemble appropriate to degree program, and C or higher in 489.  
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

494 Composition (1-3)  
Repeatability: May be repeated. Maximum 8 hours.  
(RE) Prerequisite(s): 394.  
(RE) Corequisite(s): Music General 200.  
Comment(s): Development of proficiency in sight singing short melodies and identifying melodic intervals, scales, triads, and the dictation of short diatonic melodic models.  
Contact Hour Distribution: Includes lab hours.  
Grading Restriction: Satisfactory/No Credit grading only.  
Comment(s): For students in the theory/composition concentration.

495 Composition (1-3)  
Repeatability: May be repeated. Maximum 8 hours.  
(RE) Prerequisite(s): 395.  
(RE) Corequisite(s): Music General 200.  
Comment(s): Development of proficiency in sight singing longer melodies and identifying harmonic intervals, triads, cadence types, and the dictation of longer diatonic melodic models.  
Contact Hour Distribution: Includes lab hours.  
(RE) Prerequisite(s): 120.  
Comment(s): Grade of C or higher in 130 is required.

496 Composition with Electronic Media (1-3)  
Repeatability: May be repeated. Maximum 8 hours.  
(RE) Prerequisite(s): 396.  
(RE) Corequisite(s): Music General 200.  
Comment(s): Development of proficiency in sight singing melodies, and identifying seventh chords. Dictation of diatonic harmonic progressions and diatonic melodic models.  
Contact Hour Distribution: Includes lab hours.  
(RE) Prerequisite(s): 210.  
Comment(s): Grade of C or higher in 210 is required.

499 Improvisation (1-2)  
Repeatability: May be repeated. Maximum 4 times.  
Credit Restriction(s): May not be used to satisfy applied music requirement.  
Registration Permission: Consent of instructor.  
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

Music Technology (714)  
100 Fundamentals of Music (3)  
Theory and practice of basic elements of music.  
Comment(s): For non-music majors.

105 Introduction to Music Theory (3)  
Materials of music, including scales and modes, key signatures, intervals, triads, diatonic analysis, and an introduction to part-writing.  
Registration Restriction(s): Bachelor of Music – music major or Bachelor of Arts – music major.

110 Theory I (3)  
Materials of music, including basic elements through non-chord tones and 6/4 chords. Exercises in analysis, composition, and improvisation of music with emphasis on common practice.  
Recommended Background: Successful completion of music theory placement test.

120 Theory II (3)  
Materials of music through secondary dominants and modulation. Exercises in analysis, composition, and improvisation of music with emphasis on common practice.  
(RE) Prerequisite(s): 110.  
Comment(s): Grade of C or higher in 110 is required.

130 Ear Training I (1)  
Development of proficiency in sight singing short melodies and identifying melodic intervals, scales, triads, and the dictation of short diatonic melodic models.  
Contact Hour Distribution: Includes lab hours.  
Grading Restriction: A, B, C, No Credit grading.  
(RE) Prerequisite(s): 100 or 105.  
Comment(s): Grade of C or higher in 100 or 105 is required.

140 Ear Training II (1)  
Development of proficiency in sight singing longer melodies and identifying harmonic intervals, triads, cadence types, and the dictation of longer diatonic melodic models.  
Contact Hour Distribution: Includes lab hours.  
(RE) Prerequisite(s): 130.  
Comment(s): Grade of C or higher in 130 is required.

210 Theory III (3)  
Materials of music through chromatic harmony and modulation. Exercises in analysis, composition, and improvisation of music with emphasis on common practice.  
(RE) Prerequisite(s): 120.  
Comment(s): Grade of C or higher in 120 is required.

220 Theory IV (3)  
Materials of music from the dissolution of functional harmony to contemporary compositional techniques. Exercises in analysis, composition, and improvisation of music.  
(RE) Prerequisite(s): 210.  
Comment(s): Grade of C or higher in 210 is required.

230 Advanced Ear Training III (1)  
Development of proficiency in sight singing melodies, and identifying seventh chords. Dictation of diatonic harmonic progressions and diatonic melodic models.  
Contact Hour Distribution: Includes lab hours.  
(RE) Prerequisite(s): 140.  
Comment(s): Grade of C or higher in 140 is required.

240 Advanced Ear Training IV (1)  
Development of proficiency in sight singing melodies. Dictation of diatonic harmonic progressions and melod- ic models.  
Contact Hour Distribution: Includes lab hours.  
(RE) Prerequisite(s): 230.  
Comment(s): Grade of C or higher in 230 is required.

310 Form and Analysis (3)  
Study and practice in analysis of forms of music from smallest structural units to large compound forms.  
(RE) Prerequisite(s): 210 and 240.

320 Instrumentation (2)  
Basic techniques in scoring for voice, brass, woodwind and string choirs, and percussion.  
(RE) Prerequisite(s): 210 and 230.  
Comment(s): For students in the studio music and jazz and music education concentrations.

400 Survey of Music Theory (3)  
Emphasis on harmonic practice of Baroque, Classic, and Romantic periods. Exercises in writing and analysis.  
Comment(s): Recommended as a review course for graduate students.

410 Ear Training Review (1)  
Review and application of harmonic and melodic dictation skills.  
Grading Restriction: Satisfactory/No Credit grading only.  
Recommended Background: 240.  
Comment(s): For graduate and advanced undergraduate students.

420 Orchestration (3)  
Advanced techniques in instrumental writing with emphasis on scoring for the concert orchestra.  
(RE) Prerequisite(s): 210 and 230.  
Comment(s): For students in the theory/composition concentration.
430 Counterpoint I (3) Study of species counterpoint in modal and tonal styles with emphasis on works of Palestrina and J.S. Bach. (RE) Prerequisite(s): 210 and 230.

440 Counterpoint II (3) Writing of contrapuntal forms of the 18th century and fugue analysis of works from the 18th through the 20th centuries. (RE) Prerequisite(s): 430.

450 Choral Arranging (2) Analysis of scores and writing of arrangements for choruses. (RE) Prerequisite(s): 210 and 240.

493 Independent Study in Music Theory (1-15) Repeatability: May be repeated. Maximum 15 hours. Registration Permission: Consent of department head.

Music Voice (715)

110 Class Voice I (1) Development of basic vocal skills. Repeatability: May be repeated. Maximum 2 hours. Registration Permission: Consent of instructor.

230 Acting for Singers (1) Advanced work on song presentation and interpretation; scene study and characterization. Repeatability: May be repeated. Maximum 4 hours. Registration Permission: Consent of instructor.


250 Diction II (2) Sounds by phonetic symbols. Opera and art songs used for examples. Emphasis placed on German, French, and Latin diction. Performance practice.

330 Opera Production (1-3) Supervised work on opera productions. Repeatability: May be repeated. Maximum 12 hours. Registration Permission: Consent of instructor.

410 Song Literature I (2) German songs.

420 Song Literature II (2) French, Italian, Russian, Scandinavian, Czechoslovakian, British, and American art songs.


450 Pedagogy I (2) Concepts and approaches to teaching singing, past and present, for all ages of voices. Registration Permission: Consent of instructor.

460 Pedagogy II (1) Vocal teaching materials. Includes collateral teaching experiences. (RE) Prerequisite(s): 450.

Musicology (706)

110 Introduction to Music in Western Culture (3) The study of style periods of Western European art music and related issues of cultural and social history. Develops listening skills and ability to respond to music articulately. Writing-emphasis course. (AH) Credit Restriction: Students who receive a grade of C or better in 200 may not receive credit for 110.

115 Music in the United States (3) Explores musical traditions of the United States. Writing-emphasis course. (AH)

120 History of Rock (3) Study and appreciation of rock music, its origins in blues and rock and roll, and its development and cultural dimensions to the present. Writing-emphasis course. (AH)

125 Jazz in American Culture (3) The historical study of jazz as part of American culture, including its styles, key performers, and musical practices. Writing-emphasis course. (AH)

200 Introduction to Music Literature (3) Basic forms of music and accepted masterworks through chronological approach. Comment(s): For music majors and minors only.

210 History of Western Music, Ancient to the Baroque (3) Historical study of musical styles, practices, theories, and context of European art music to 1750. Develops skills in independent research, critical thinking, and expository writing. Writing-emphasis course. (AH) (WC) (RE) Prerequisite(s): 110.

220 History of Western Music, Classical to the Present (3) Historical study of musical styles, practices, theories, and context of European art music from 1750 to present. Develops skills in independent research, critical thinking, and expository writing. Writing-emphasis course. (AH) (RE) Prerequisite(s): 210. Registration Permission: Consent of instructor.

290 Soundscapes: Exploring Music in a Changing World (3) An introduction to music within expressive culture and as a part of peoples' daily lives around the world. Focuses on music as sound, its role in conceptions of identity, migration and global social processes, personal and community memory, and politics and power. (AH)

310 Introduction to African-American Music (3) History of African music, blues, gospel music, and jazz with emphasis on black artists and their contributions. (Same as Africana Studies 310.)

320 History of Rock (3) Interdisciplinary survey of music as a gendered construct in varying cultural contexts, including Western European art music, American popular music, and others. Explores gendered roles in composition, performance, and social and musical institutions from the point of view of historical, cultural, feminist, and queer interpretations. (Same as Women's Studies 330.) (WC)

340 Contemporary Trends in American Church Music I (2) The history and analysis of popular, contemporary sacred music with an emphasis on theory and keyboard harmony. (RE) Prerequisite(s): Music Theory 220.

341 Contemporary Trends in American Church Music II (2) Continuation of the history and analysis of popular, contemporary sacred music with an emphasis on composition and arranging. (RE) Prerequisite(s): 340.

350 History of Jazz (3) Origin, development, and styles of jazz music and its exponents. Cultivation of special listening techniques. Writing-emphasis course.

380 Music in World Cultures (3) Examines music from an ethnomusicological perspective focusing on musical performance and the interrelationships of music, culture, and daily life. The course surveys music from a variety of cultures through a series of case studies. (WC) (RE) Prerequisite(s): 210 and 220.

400 Music History Survey (3) Condensed survey of the history of Western European musical traditions from the medieval era to the present, including socio-political events that shape musical practice. Explores musical genres and styles, as well as key themes in musicological research. Recommended Background: 100-level musicology course. Comment(s): Recommended as a review course for graduate students. Does not count for graduate credit.

410 Studies in Genre (3) Historical, cultural, analytical, and musicological issues related to a single musical genre, style, or repertory. Topics vary. Repeatability: May be repeated. Maximum 6 hours. Recommended Background: 100-level musicology course.

420 History of Opera (3) The development of opera from its inception to the present. Readings and discussion focus on an understanding of the historical trajectory of opera, both as a musico-theatrical work and as a cultural practice. Recommended Background: 100-level musicology course. Registration Permission: Consent of instructor.

430 History of the Symphony (3) Overview of orchestral repertories from 1600 to the present. Recommended Background: 100-level musicology course. Registration Permission: Consent of instructor.

450 Composer Seminar (3) Biographical, historical, and cultural study of a composer or a group of related composers. Topics vary. Repeatability: May be repeated. Maximum 6 hours. Recommended Background: 100-level musicology course.

460 Music Aesthetics (3) Nature of music and musical experience, sense perception and emotions, music, and the role of artist in society. Aesthetic viewpoint of individuals and historical eras through selected writings. Writing-emphasis course. Recommended Background: 100-level musicology course.

480 Music in Christian Worship (3) Hymnody, liturgies, and liturgical music. Recommended Background: 100-level musicology course.

493 Independent Study (1-15) Repeatability: May be repeated. Maximum 15 hours. Registration Permission: Consent of department head.
Nuclear Engineering (716)

200 Introduction to Nuclear and Radiological Engineering (1) Topics related to nuclear and radiological engineering. Grading Restriction: Satisfactory/No Credit grading only.

203 Thermodynamics I (3) First law analysis of open and closed systems. Properties of ideal gases and real fluids. Introduction to second law and concept of entropy. Rankine cycle. (RE) Prerequisite(s): Mathematics 142.

301 Fundamentals of Nuclear and Radiological Engineering (3) Nuclear systems, radiation interactions and decay, health physics, cross sections, basic nuclear reactor theory concepts, and introduction to FORTRAN programming. (RE) Prerequisite(s): Physics 232 and Mathematics 231.

304 Nuclear and Radiological Engineering Laboratory I (3) Radiation detection and counting instrumentation, counting statistics, half-life and decay schemes, gamma spectrometry, and heat transfer experiments. (WC) (DE) Prerequisite(s): 342. (RE) Corequisite(s): 470.


351 Nuclear System Dynamics and Control (3) System modeling and time-domain response, transfer functions, frequency-domain response, stability, state-space methods, and control design. Nuclear reactor kinetics, nodal modeling of core heat transfer, reactor control systems, and nuclear plant transient response are discussed. System simulation and control using PC-based software and toolboxes. (RE) Prerequisite(s): 301.

360 Reactor Systems and Safety (3) Safety and operating limits of nuclear steam supply system components. NRC regulations. Accident analysis and mitigation. (RE) Prerequisite(s): 342.

400 Senior Seminar (1) Current topics related to nuclear and radiological engineering including ethics, contemporary issues, and commitment to lifelong learning. (OC) Grading Restriction: Satisfactory/No Credit grading only. Registration Restriction(s): Minimum student level – senior.

403 Nuclear and Radiological Engineering Laboratory II (3) Cross section measurements, diffusion properties of neutrons, shielding, dynamics and controls, alpha and beta spectroscopy, radiation fields and dosimetry. (WC) (RE) Prerequisite(s): 304.

404 Nuclear Fuel Cycle (3) Topics relative to nuclear fuel cycle including, mining, milling, fabrication, in-core management, reprocessing, waste disposal. Regulatory and radiation health issues and requirements. (RE) Prerequisite(s): 470.

406 Radiation Shielding (3) Types of radiation sources, fundamentals of gamma ray and neutron attenuation, biological effects, approximate methods of shield design, discrete ordinates, and Monte Carlo. (RE) Prerequisite(s): Physics 232.

410 Physics for Nuclear Medicine I (3) Nuclear physics, mathematics, and statistics. Survey of historic and current concepts in atomic and nuclear structure, interrelationships between matter and energy, nuclear reactions, nuclear stability, production of radionuclides, radionuclide generators, decay schemes, and charts used in nuclide identification and behavior prediction. Mathematics and statistics topics include basic arithmetic theories, mathematical manipulations, and applied technical mathematics for use in radio active decay equations, dose calculations and concentration, volume and shielding determinations. Grapping, counting statistics, and other physical and chemical applications of mathematics to nuclear medicine are included. Comment(s): May not be substituted for Physics 471 or 472. Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

411 Nuclear Instrumentation (3) Course concerns non-imaging, imaging, and instrument quality assurance. Non-imaging topics include basic radiation detectors, their responses, functions, and limitations with an overview of basic electronics, gas-filled detectors, statistics and counting, solid and liquid scintillation detection systems, semiconductor and instrument stabilization, and quality control. Imaging topics are instrumentation of imaging devices, including basic function, application of principles, and quality control. Quality assurance unit emphasizes function and maintenance requirements of nuclear instrumentation, radiation safety practices, and statistical analysis of quality control data. Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

412 Radiopharmacy (2) Emphasis on basic chemistry and radiochemistry in nuclear radiopharmacy. Topics include radiopharmaceutical preparation and quality assurance, radionuclide production, and basic photographic film chemistry. Kinetics, biodistribution, and mechanisms of localization are also included, plus guidelines and regulations governing radiopharmacy management and operation. Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

415 Physics for Nuclear Medicine II (3) Continuation of 410 with focus on radiobiology and radiation safety. Radiobiology topics include interactions of radiation and matter, cellular and systemic responses to radiation, early and late somatic and genetic effects, biological effects of low level radiation, critical organ and dose calculations, and benefit versus risk factors. Radiation safety topics include exposure terminology, dose limit recommendations, ALARA philosophy, federal and state regulations, radiation monitoring equipment, and methods and techniques for safe practice of nuclear medicine. Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.
420 Clinical Nuclear Medicine I (4) Theories and applications of nuclear medicine methodologies. Patient care, central nervous system, endocrine system, respiratory system, and digestive system.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

425 Computer Applications in Nuclear Medicine (3) Computer systems, applications, and components in quantitation in nuclear medicine. Topics include acquisition modes and limitations, image processing, modes and limitations, and image quantitation with some attention to machine and language architecture and numbering systems.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

430 Clinical Nuclear Medicine II (4) Theories and applications of nuclear medicine methodologies. Hepatic and hepatobiliary system, genitourinary system, musculoskeletal system, non-organ/tumor/inflammatory imaging, cardiovascular imaging, and non-imaging nuclear medicine.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

440 Clinical Nuclear Medicine III (4) Theories and applications of nuclear medicine methodologies. Single photon emission tomography, positron emission tomography, clinical quality assurance, pediatric nuclear medicine, radionuclide therapy, and management and administration of nuclear medicine programs.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

450 Clinical Practicum I (4) Clinical instruction in routine nuclear medicine procedures conducted at UTMCK and other clinical sites. Clinical instruction activities in imaging, instrumentation, radiotherapy, dose administration, radiation safety and protection, non-imaging procedures, patient care and preparation, computer applications, radionuclide therapy, and basic administrative and management procedures.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

460 Clinical Practicum II (6) Clinical instruction in routine nuclear medicine procedures conducted at UTMCK and other clinical sites. Clinical instruction activities in imaging, instrumentation, radiotherapy, dose administration, radiation safety and protection, non-imaging procedures, patient care and preparation, computer applications, radionuclide therapy, and basic administrative and management procedures.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

470 Clinical Practicum III (6) Clinical instruction in routine nuclear medicine procedures conducted at UTMCK and other clinical sites. Clinical instruction activities in imaging, instrumentation, radiotherapy, dose administration, radiation safety and protection, non-imaging procedures, patient care and preparation, computer applications, radionuclide therapy, and basic administrative and management procedures.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

475 Nuclear Medicine Registry Review (2) Preparation for National Registry Examination with special emphasis on film interpretation and reporting in technical critique sessions.
Registration Restriction(s): Pre-professional programs major/nuclear medicine technology concentration.

Nursing (720)

201 Introduction to Nursing (2) History, philosophy, and scope of nursing practice with emphasis on the holism of persons, standards for professional practice, and an overview of the nursing process and nursing theories.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major; minimum student level – sophomore.

305 Transitions to Professional Nursing (4) Builds on the knowledge base and experience of RNs in transition to professional nursing. Focuses on the conceptual foundations of nursing practice and issues in health care delivery.
Contact Hour Distribution: 3 lecture and 1 lab.
Comment(s): For RNs only.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major.

310 Essentials of Nursing Practice (3) History, philosophy, and scope of nursing practice with emphasis on the holism of persons, standards for professional practice, assessing for health risk factors, patient centered communication, therapeutic interventions, and critical thinking as key elements in the use of the nursing process. Clinical laboratory experiences provide opportunity for the application of these processes in the care of adults in selected health care settings.
Contact Hour Distribution: 2 didactic and 1 clinical.
(RE) Corequisite(s): 333.
Registration Restriction: Master of Science in Nursing – nursing major.
Comment(s): This course is for non-nurse MSN students only.

311 Foundations of Professional Nursing Practice (5) Emphasis on patient centered communication, therapeutic interventions, and critical thinking as key elements in the use of the nursing process. Clinical laboratory experiences provide opportunity for the application of these processes in the care of adults in selected health care settings.
Contact Hour Distribution: 2 lecture and 3 lab.
(RE) Prerequisite(s): 201.
(RE) Corequisite(s): 319 and 333.
(DE) Corequisite(s): 341.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major; minimum student level – junior.

319 Pathophysiology of Health Deviations (4) Application of physiological concepts to health promotion, maintenance, deviations, and restoration. Introduction to psychoneuroimmunology. Emphasis on interactions of body systems, and impact of disease processes on the human body.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major; minimum student level – junior.

333 Health Assessment (3) Theory and laboratory practice in the systematic assessment of health status including history taking and performance of physical assessment skills.
Contact Hour Distribution: 2 lecture and 1 lab.
Comment(s): For RNs, this course is prerequisite to any clinical course beyond 305.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major; minimum student level – junior.

341 Transcultural Nursing (2) Focus on cultural perspectives in health and illness. Discussion of diversity in and influence of culture on health promotion and maintenance, and restoration across the lifespan and in selected nursing specialties, ethnic populations, and religious denominations.
(OC) Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major; minimum student level – junior.

(Re) Prerequisite(s): Chemistry 100 and Chemistry 110.
Comment(s): 6 hours of anatomy and physiology are required.

361 Health Maintenance and Restoration: Adult (5) Focus on health maintenance and restoration of adults experiencing commonly occurring acute or chronic illness. Presentation of illnesses and critical indicators of underlying conditions will be identified for the younger adult as compared to the older adult.
Contact Hour Distribution: 3 lecture and 2 lab.
(Re) Prerequisite(s): 311 and 319.
(De) Prerequisite(s): 333.
(Re) Corequisite(s): 351.
Comment(s): RNs are exempt from 311.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major.

381 Professional Development in Nursing (2) Emphasis on development of personal attributes necessary for professional practice such as: emotional intelligence, caring, critical thinking, decision making, problem solving, motivation and management of time, stress, and anger. The course content also includes theories and principles of interpersonal capacities and strategies used in any health care setting such as communication, delegation, and management of teams, conflicts, and changes.
(Re) Prerequisite(s): 311 and 341.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major.

382 Health Promotion and Maintenance in the Community (5) Focus on nursing care of at-risk populations in the community and national health promotion objectives. Analysis of community health needs. Design and implementation of nursing interventions to promote and maintain health.
Contact Hour Distribution: 3 lecture and 2 lab.
(Re) Prerequisite(s): 311 and 319.
(De) Prerequisite(s): 333.
(Re) Corequisite(s): 351 and 361.
Registration Restriction(s): Bachelor of Science in Nursing – nursing major.
400 Aging and Society (3) An examination of the health and social effects of longevity and the aging process including societal and personal attitudes about old age. Resources, trends, issues, and potentials of aging are explored. Volunteer community service, a service learning component, is required. Registration Permission: Consent of instructor.

402 Gerontology Practicum (3) Off-campus supervised experience in gerontology. Offered as part of the gerontology minor. Comment(s): Open to students in all colleges. Registration Permission: Consent of instructor.

403 Health Promotion and Maintenance in Childbearing Families (5) Nursing practice for promotion, maintenance, and restoration of reproductive health. Emphasis on therapeutic relationships with childbearing families for long-term positive impact on health care and lifestyle. (WC) Contact Hour Distribution: 3 lecture and 2 lab. (RE) Prerequisite(s): 361 and 382. (DE) Prerequisite(s) or Corequisite(s): 406. Registration Restriction(s): Bachelor of Science in Nursing – nursing major.

404 Health Promotion, Maintenance, and Restoration in Children, Adolescents, and Their Families (5) A family-centered approach to the nursing care of children and adolescents. The nursing process is used as the basis for promoting, maintaining, and restoring health and facilitating adaptation in the child-rearing family. Clinical experiences in selected agencies provide experience with children and adolescents in both community and acute care settings. Contact Hour Distribution: 3 lecture and 2 lab. (RE) Prerequisite(s): 361 and 382. (DE) Prerequisite(s) or Corequisite(s): 406. Registration Restriction(s): Bachelor of Science in Nursing – nursing major.

406 Pharmacology II (2) Continuation of 351 with emphasis on nursing responsibilities in the safe and effective use of therapeutic drugs, recognition and reporting of side effects, and critical aspects of patient education. (RE) Prerequisite(s): 351.

409 Genetic Disorders, Vulnerable Families, and Health Advocacy (3) Examination of health and social implications of Human Genome Project with emphasis on genetic disorders that result in chronic illness or disability. Strategies for building collaborative partnerships to affect health advocacy for vulnerable populations. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major; minimum student level – junior.

415 Nursing the Childbearing Family (4) Application of the nursing process to individuals, families, and groups in the childbearing/rearing stages of development. Clinical experiences are provided in a variety of hospital and community settings. Contact Hour Distribution: 2 lecture and 2 lab. Comment(s): For non-nurse MSN students. Registration Restriction(s): Master of Science in Nursing – nursing major.

421 Mental Health Maintenance and Restoration (5) Nursing support and care for persons with mental health needs. Emphasis on use of self as a therapeutic agent with individuals, groups, and families. Developing nursing strategies for mental health maintenance and restoration. Contact Hour Distribution: 3 lecture and 2 lab. (RE) Prerequisite(s): 361 and 382. (DE) Prerequisite(s) or Corequisite(s): 406. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major.

423 Health Promotion, Maintenance, and Restoration in the Community (3) Focus on nursing care of at risk individuals, communities, and populations. Assessment of sociocultural values, environmental factors, health education, and community resources. Design of interventions to promote, maintain, and restore health through the use of the epidemiological process. Clinical practice in a community health setting. Contact Hour Distribution: 2 lecture and 1 lab. Comment(s): For non-nurse MSN students only or permission of instructor. Registration Restriction(s): Master of Science in Nursing – nursing major.

444 Care of Children, Adolescents, and Their Families (3) A family-centered approach to the nursing care of children and adolescents. The nursing process is used as the basis for promoting, maintaining, and restoring health and facilitating adaptation in the child-rearing family. Contact Hour Distribution: 2 lecture and 1 lab. (RE) Prerequisite(s): 361. Comment(s): For non-nurse MSN students only. Registration Restriction(s): Master of Science in Nursing – nursing major.

451 Interpersonal Management Skills in Nursing (2) Focus on concepts and strategies for leadership as a professional nurse. Application of common workplace issues that affect nursing practice. (RE) Prerequisite(s): 381. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major; minimum student level – senior.

452 Professional and Workplace Issues (1) Focus on nursing ethics and moral development. Use of scenarios from everyday practice. (RE) Prerequisite(s): 451. Registration Restriction(s): Bachelor of Science in Nursing – nursing major; minimum student level – senior.

454 Professional Leadership Issues (2) Survey of issues and trends that influence the practice of professional nursing. Focus on concepts and strategies for leadership as a professional nurse. Emphasis on personal development and interpersonal skills. (OC) Recommended Background: RN status or MSN. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major.

461 Health Restoration: Adult (4) Focus on nursing practice for health restoration of adults with acute, complex health needs. Emphasis on quality of care, coordination of care, and end of life care. Contact Hour Distribution: 2 lecture and 2 lab. (RE) Prerequisite(s): 361 and 382. (DE) Prerequisite(s) or Corequisite(s): 406. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major.

470 Special Topics (1-3) In-depth study of selected nursing topics, problems, or issues not covered in other courses. Topics determined by faculty and student interest. Repeatability: May be repeated. Maximum 6 hours. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major. Registration Permission: Consent of instructor.

471 Nursing Research (3) Introduction to research, design, and methodologies. Critique of selected research studies for application to evidenced-based nursing practice. Comment(s): Also open to RNs. Registration Restriction(s): Bachelor of Science in Nursing – nursing major; minimum student level – senior.

477 Honors Nursing Research (3) Introduction to research design and methodologies. Critique of nursing research studies for application to evidence-based nursing practice. Includes a substantial, scholarly senior project to be conducted with approval of an advisor within the department. Registration Restriction(s): Nursing major; minimum student level – senior; qualification – admission to Chancellor’s Honors Program.

490 Specialty Preceptorship (4) In-depth practicum to develop knowledge and skill in a selected specialty area under direct guidance of clinical preceptor. Knowledge development in specialty area under guidance of faculty. Contact Hour Distribution: 1 lecture and 3 lab. (RE) Prerequisite(s): 406 and 451. (DE) Prerequisite(s) or (DE) Corequisite(s): 403, 404, 421, and 461. Registration Restriction(s): Bachelor of Science in Nursing – nursing major.

491 International Studies (1-3) Participation in selected health and nursing care in foreign countries. Repeatability: May be repeated. Maximum 6 hours. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major. Registration Permission: Consent of instructor.

493 Independent Study (1-3) Nursing or health-related topic not covered in other nursing courses. Repeatability: May be repeated. Maximum 6 hours. Registration Restriction(s): Bachelor of Science in Nursing – nursing major or Master of Science in Nursing – nursing major. Registration Permission: Consent of instructor.

494 Alternative Preceptorship (4) An alternative to 490 for the registered nurse student. For experienced nurses, the practicum portion of the course can be met through preparation of a portfolio and documentation of course objectives having been met through professional practice. (WC) Contact hour distribution: 2 lecture and 2 lab. (RE) Prerequisite(s): 305 and 333. Comment(s): For RN-BSN students who have successfully completed all ACE proficiencies or the comparable course work. Registration Restriction(s): Bachelor of Science in Nursing – nursing major.
Nutrition (726)

100 Introductory Nutrition (3) Nutritional concepts, current consumer issues in nutrition, nutritional needs through life cycle, and international nutrition concerns and/or issues. (NS)

104 Sports Nutrition for Athletes (1) Nutritional concepts focusing on the optimal training diet; balancing energy with activity; positive fueling before, during, and after sports events; and sorting out nutritional supplements.

201 Careers in Nutrition (1) Overview of nutrition-related careers. Routes to meeting academic, registration, and experience requirements.

302 Life Span Nutrition (3) Physiological development and psychosocial factors that influence nutrient needs and nutrition behaviors of individuals across the life span. Nutrition education strategies for various age groups.

(Re)Prerequisite(s): 100.

303 Foodservice Systems Management (3) Assessment of managerial, organizational, and operational structures in foodservice systems with focus on markets related to dietetic practice, human resource policies, and strategies applied to foodservice systems management.

310 Physiological Chemistry (4) (See Biochemistry and Molecular Biology 310.)

313 Vitamins and Minerals (3) Functional properties and interrelationships among vitamins and minerals as they apply to human nutrition.

(Re)Prerequisite(s): Chemistry 350 and Biochemistry and Molecular Biology 310.

314 Energy Metabolism and Metabolic Integration (3) Integration of carbohydrate, fat, and protein metabolism as applied to nutrient utilization and requirements in humans.

(Re)Prerequisite(s): Biochemistry and Molecular Biology 310 and Chemistry 350.


Registration Restriction(s): Minimum student level – senior.

412 Food and Nutrition in the Community (3) Influence of health characteristics, geographic, social, economic, educational, and cultural factors on food and nutrition programming. Relationship of community food and nutrition problems to programs and services for families and communities with particular attention to disease prevention and public policy.

(Re)Prerequisite(s): 302 and 415.

415 Clinical Nutrition I (3) Pathophysiological basis and nutritional assessment and intervention in chronic diseases in humans.

(Re)Prerequisite(s): 313 and 314.

416 Clinical Nutrition II (3) Pathophysiological basis and nutritional assessment and intervention in acute disease and other critical care conditions.

(Re)Prerequisite(s): 415.

420 Food and Nutritional Analysis (4) Principles, procedures, and instrumentation for analysis of food and body fluids. Interpretation of chemical, dietary, and anthropometric data analysis in nutrition research.

(Re)Prerequisite(s): 100 and Biochemistry and Molecular Biology 310.

450 Special Topics: Nutrition (1-3) Developments, issues, and problems in nutrition. Topics will vary.

Repeatability: May be repeated. Maximum 3 hours.

Registration Restriction(s): Nutrition major; minimum student level – junior.

Registration Permission: Consent of instructor.

490 Introduction to the Dietetic Internship (3) Applications of clinical, food service, and management theories to dietetic practice.

Comment(s): Restricted to dietetic intern students.

492 Field Experience: Nutrition (1-3) Grading Restriction: Satisfactory/No Credit grading only.

Repeatability: May be repeated. Maximum 6 hours.

Registration Permission: Consent of instructor.

493 Directed Study: Nutrition (1-3) Individual student/faculty experience.

Grading Restriction: Letter grade only.

Repeatability: May be repeated. Maximum 6 hours.

Registration Permission: Consent of instructor.

Operations and Management Science (738)

341 Operations Management I (3) Design of operations systems. Process and methods analysis and measurement, location and layout, project management, and operational forecasting.

(Re)Prerequisite(s): Business Administration 341.

Registration Restriction(s): Majors in the College of Business Administration.

410 Management Science (3) Introduction to quantitative decision models and their integration into microcomputer-based decision support systems. Topics include linear, dynamic and network programming, as well as decision analysis, Markov, inventory, and queuing models.

(Re)Prerequisite(s): Mathematics 123 and Statistics 201.

421 Total Quality Management (3) Successful quality improvements characterized by four main principles — customer focus, continuous improvement, leadership, and teamwork. This course focuses on the managerial perspective that is necessary to successfully implement and integrate quality improvements initiatives. The quality improvement tools are also presented.

(Re)Prerequisite(s): Business Administration 341.

Registration Restriction(s): Majors in the College of Business Administration.

Persian (744)

161 Elementary Persian I (4) (See Asian Studies 161.)

162 Elementary Persian II (4) (See Asian Studies 162.)

261 Intermediate Persian I (4) (See Asian Studies 261.) (CC)

262 Intermediate Persian II (4) (See Asian Studies 262.) (CC)

Philosophy (745)

110 The Human Condition: Values and Reality (3) The meaning of life, the existence of God, freedom of the will, and human nature and values. Writing-emphasis course. (AH)

111 The Human Condition: Knowledge and Reality (3) The place of mind in a material universe and the nature and possibilities of human knowledge. Writing-emphasis course. (AH)

Comment(s): May be taken before 110.

117 Honors: Introduction to Philosophy I (3) Honors version of 110. (AH)

118 Honors: Introduction to Philosophy II (3) Honors version of 111. (AH)

Comment(s): May be taken before 117.

130 Critical Thinking (3) An introduction to practical reasoning in natural language. Designed to enhance skills in recognizing, analyzing, evaluating, and constructing arguments.

135 Formal Logic (3) Introduction to formal deductive systems – propositional and predicate logic.

200 Special Topics (3) Repeatability: May be repeated if topic differs. Maximum 6 hours.

241 Engineering Ethics (3) Ethical issues in engineering at the intersection of science, business, and society. Topics such as international concerns; risk, safety, and the environment; employee loyalties and professional responsibility; and professional organizations and codes of conduct. Writing-emphasis course. (AH) (WC)

242 Contemporary Moral Issues (3) Issues such as euthanasia, capital punishment, reproductive technologies, sexual ethics, diversity, war, world poverty, employment practices, and the environment, in light of philosophical analysis and ethical theory. Writing-emphasis course. (AH) (OC)

243 Business Ethics (3) The proper roles of ethics in business in general and such specific issues as the meaning and value of work, employee rights and responsibilities, marketing, finance, the environment, information technology, diversity and discrimination, international business, economic global- ization, and ethical business cultures. Readings include philosophical essays and contemporary case studies. Writing-emphasis course. (AH) (WC)

244 Professional Responsibility (3) Critical analysis of selected classic texts from philosophy, religious studies, and social sciences dealing with responsibility and the nature of professionalism. Theoretical principles and analytical skills applied to selected case studies and other detailed descriptions of professional practice from engineering/architecture, business/accounting, and at least one of law/politics, the helping professions (social work, human services, ministry), or teaching. Writing-emphasis course. (Same as Legal Studies 244; Religious Studies 244.) (AH) (OC)
245 Environmental Ethics (3) Issues concerning the nature of the environment and the place of humanity within it. Writing-emphasis course. (AH)

246 Bioethics (3) Ethical issues in health care such as abortion, euthanasia, human experimentation, fairness in health care delivery, and the doctor-patient relationship. Writing-emphasis course. (AH) (WC)

290 Social and Political Philosophy (3) Issues such as the obligation to obey the law, liberty, oppression, equality, rights, democracy, and the just society. Writing-emphasis course. (AH) (WC)

300 Special Topics (3)
Repeatability: May be repeated. Maximum 6 hours.

320 Ancient Western Philosophy (3) Writing-emphasis course. (WC)

322 Medieval Philosophy (3) Development of medieval thought from St. Augustine to William of Occam. Secondary and primary sources. Writing-emphasis course. (Same as Judaic Studies 322; Medieval Studies 322.) (WC)

324 17th- and 18th-Century Philosophy (3) Writing-emphasis course. (WC)

326 19th- and 20th-Century Philosophy (3) Writing-emphasis course. (WC)

340 Ethics (3) Theories of ethical values. Writing-emphasis course. (WC)

350 Aesthetics (3) Philosophical discussion of art. Writing-emphasis course.

353 Philosophy and Literature (3) Nature of literature and philosophical assumptions in literary works. Writing-emphasis course.

360 Philosophy of Science (3) An introduction to major problems in the philosophy of science. Specific issues vary but may include the nature of causality; the relationship between experiments, theories, and scientific practice; how theories change and how scientific disputes get settled; the role played by social organization in science (e.g., gender and race issues); and others. Writing-emphasis course.

370 Philosophy of Religion (3) Analysis of basic issues in the philosophy of religion. (Same as Religious Studies 370.)

374 Philosophy and Religion of India (3) (See Religious Studies 374.)

376 Buddhist Philosophy and Religion (3) (See Religious Studies 376.)

379 Religion and Philosophy in China (3) (See Religious Studies 379.)

382 Philosophy of Feminism (3) Various feminist theories and their application to social issues of concern to women today. Writing-emphasis course. (Same as Women’s Studies 382.) (WC)

390 Philosophical Foundations of Democracy (3) Philosophical problems relating to the nature and justification of the central values, principles, and concepts of democratic society. Writing-emphasis course. (WC)

392 Philosophy of Law (3) A course in analytic and normative jurisprudence. Such topics as the nature of legal systems as normative social practices, the relationships between law and morality, theories of adjudication and legal reasoning, the justification of punishment, theories of legal responsibility, law and economics, and feminist and neo-Marxist critiques of law. Writing-emphasis course. (Same as Legal Studies 392.)

393 Global Justice and Human Rights (3) Issues such as justice between distinct and diverse political communities; universal human rights; and moral issues in environment, trade, and development. Writing-emphasis course. (Same as Global Studies 393; Legal Studies 393.)

395 Existentialism (3) Themes related to freedom and finitude in the tradition that begins with Kierkegaard and Nietzsche and extends to Heidegger and Jaspers, and Sartre and Merleau-Ponty.

400 Special Topics (3)
Repeatability: May be repeated if topic differs. Maximum 6 hours.

411 Modern Religious Philosophies (3) (See Religious Studies 411.)

419 Science as Method (3) (See Ecology and Evolutionary Biology 419.)

420 Topics in History of Philosophy (3) One or more figures or movements from antiquity through mid-20th century. (RE) Prerequisite(s): 135.

435 Intermediate Formal Logic (3) Metatheory of formal logic and philosophy of logic.

440 Contemporary Ethical Theory (3) Topics in meta-ethics or ethics. Repeatability: May be repeated if topic differs. Maximum 6 hours. Recommended Background: 6 hours of philosophy courses.

443 Advanced Business Ethics (3) Advanced topics in business ethics. Repeatability: May be repeated if topic differs. Maximum 6 hours. (DE) Prerequisite(s): One of the following – 241, 242, 243, 244, 245, 246, 340.

445 Advanced Environmental Ethics (3) Advanced topics in environmental ethics. Repeatability: May be repeated if topic differs. Maximum 6 hours. (DE) Prerequisite(s): One of the following – 241, 242, 243, 244, 245, 246, 340.

446 Advanced Bioethics (3) Advanced topics in bioethics. Repeatability: May be repeated if topic differs. Maximum 6 hours. (DE) Prerequisite(s): One of the following – 241, 242, 243, 244, 245, 246, 340.

472 Philosophy of Language (3) Problems of meaning, reference, and truth. What is the relation between words and the world? How do sentences manage to be about the world? What is it for something to be true? Recommended Background: Three 200-level or above philosophy courses.

473 Philosophy of Mind (3) Problems of mind and body in relation to consciousness and personal identity. Recommended Background: 6 hours of philosophy courses.

491 Foreign Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

Physical Education (764)

200 Special Topics (1-2) Selected topics in various activities not covered in the regular program. Repeatability: May be repeated if topic differs. Maximum 6 hours.

202 Badminton (1) Fundamental badminton technique, game strategy, and rules for singles and doubles play.

206 Bowling (1) Introduction to ball selection, approach, spot bowling, rules, scoring, etiquette, and basic terminology necessary for enjoyable recreational bowling.

211 Golf (1) Introduction to chipping, putting, full swing, rules, etiquette, and scoring necessary for enjoyable recreational play.

213 Ice Skating (1) Beginning skills and etiquette in ice skating. Grading Restriction: Satisfactory/No Credit grading only.

216 Martial Arts (Special Topics) (2) Selected topics in various forms of martial arts, including but not limited to jiuitsu, judo, karate, and tai chi. Repeatability: May be repeated if topic differs. Maximum 6 hours.

224 Physical Fitness: Conditioning (1) Program of flexibility, strength, and cardiovascular endurance through exposure to various exercise forms.

225 Physical Fitness: Exercise to Music (1) Total body workout to music with lecture emphasis on basic fitness components of flexibility, strength, and cardiovascular fitness.

226 Exercise and Weight Control (1) Fitness activities and basic fundamentals of nutrition for students interested in losing weight. Includes body composition assessment and instruction on achieving a goal weight.

229 Physical Fitness: Jogging (1) General factors on physical fitness with emphasis on the improvement of cardiovascular fitness through jogging.

230 Physical Fitness: Swimming (1) Introductory course outlining basic principles of fitness, evaluation, and workout design in the aquatic environment.

231 Physical Fitness: Walking (1) Course for those wishing to begin a fitness program. Includes measurement and interpretation of fitness components, including body composition, cardiorespiratory fitness, low back function and nutrition.

232 Racquetball I (1) Pass, kill, ceiling shots, and basic serves. Singles and doubles strategy necessary for recreational play.

234 Soccer (1) Introduction to individual and team fundamentals, rules, and strategy.

235 Social Dance (2) Popular ballroom dance forms such as the swing (shag), foxtrot, cha-cha, tango, and rumba.

236 Softball (1) Introduction to individual and team fundamentals, rules, and strategy.

237 Stress Management (2) Class will deal with the stress process and its relationship to health and disease, lifestyle, and the socio-cultural environment. The psychological, sociological, and spiritual aspects of stress will also be discussed, as well as the concept of the integrative (i.e., mind-body-spirit) person. Finally, a portion of each class period will be devoted to the learning, practice, and implementation of a personal, broad-based coping strategy for stress management.
239 Beginning Swimming (1) Includes skills in the American Red Cross basic swimming course for the non-swimmer.

240 Intermediate Swimming (1) Crawl stroke, elementary back stroke, side stroke, back crawl, breast stroke, entries, and turns.

244 Tennis I (2) Introduction to forehand, backhand, serve, volley, rules, scoring, and simple strategy.

245 Tennis II (1) Development of accuracy and improved technique of ground strokes and serve. Introduction to smash, spin serve, and advanced strategy.

251 Volleyball (1) Introduction to individual and team fundamentals, rules, and strategy.

252 Weight Training (1) Introduction to the principles of strength development for large muscle groups through the use of free weights and machines.

254 Yoga and Relaxation (1) Introduction to yoga and various forms of relaxation with the majority of class time spent learning and refining the postures.

Grading Restriction: Satisfactory/No Credit grading only.

255 Water Safety Instructor (2) Prepares individuals to teach American Red Cross basic swimming and personal safety courses. ARC certification.

256 Lifeguarding Training (2) American Red Cross lifeguarding and aquatic management techniques. ARC certification.

259 Snow Skiing (1) Development of skills necessary to balance, walk, and slide while on skis. Ski etiquette and skier’s responsibility code.

Grading Restriction: Satisfactory/No Credit grading only.

261 Scuba Diving (2) Introduction and developmental scuba diving skills, as well as the theory, safety skills, and practical application of skills to open water scuba diving.

262 Snowboarding (1) Develop skills necessary for proper balance and control in snowboarding. Learn and demonstrate rules and regulations of snow etiquette through group participation. Learn the snowboarding responsibility code.

Grading Restriction: Satisfactory/No Credit grading only.

Physics (773)

101 How Things Work I (3) Examines familiar objects of everyday experience and leads to an understanding of the physical principles that make them work. Laws of motion, mechanical objects, fluids, and heat. (NS)

Comment(s): For students with majors outside science.

102 How Things Work II (3) Examines familiar objects of everyday experience and leads to an understanding of the physical principles that make them work. Electric and magnetic forces, electronics, lights and optics, and an introduction to modern physics. (NS)

Comment(s): For students with majors outside science. Physics 101 is not a prerequisite for Physics 102.

135 Introduction to Physics for Physical Science and Mathematics Majors I (4) Calculus-based physics of mechanics and waves. (NS)

Contact Hour Distribution: 3 hours lecture and 2 hours lab.

(RE) Corequisite(s): Mathematics 141.

Comment(s): Alternative to 137 for physics majors.

136 Introduction to Physics for Physical Science and Mathematics Majors II (4) Calculus-based physics of thermodynamics, electricity, magnetism, and optics. (NS)

Contact Hour Distribution: 3 hours lecture and 2 hours lab.

(RE) Corequisite(s): Mathematics 142.

Comment(s): Alternative to 138 for physics majors.

137 Honors: Fundamentals of Physics for Physics Majors I (5) Calculus-based physics of mechanics, sound, waves, and thermodynamics. (NS)

(RE) Corequisite(s): Mathematics 141.

Recommended Background: High school calculus and physics.

Comment(s): For physics and engineering physics majors and qualified students from other majors.

Registration Permission: Consent of department.

138 Honors: Fundamentals of Physics for Physics Majors II (5) Calculus-based physics of electricity, magnetism, and optics. (NS)

(RE) Corequisite(s): Mathematics 142.

Recommended Background: High school calculus and physics.

Comment(s): For physics and engineering physics majors and qualified students from other majors.

Registration Permission: Consent of department.

161 Elements of Physics for Architects and Interior Design Students (3) Chosen topics in physics for architecture and interior design students. Course emphasizes material development by logic and lecture demonstrations. (NS)

Recommended Background: High school intermediate algebra and geometry.

221 Elements of Physics (4) Basic physical principles and applications required in pre-medical, pre-dental, pre-pharmacy and pre-veterinary programs. Mechanics, heat, wave motion, and optics. (NS)

Contact Hour Distribution: 3 hours lecture and 3 hours lab.

(RE) Prerequisite(s): Mathematics 130 or Mathematics 141.

Comment(s): Any calculus course is also an appropriate prerequisite.

222 Elements of Physics (4) Basic physical principles and applications required in pre-medical, pre-dental, pre-pharmacy and pre-veterinary programs. Electricity, magnetism, and modern physics. (NS)

Contact Hour Distribution: 3 hours lecture and 3 hours lab.

(RE) Prerequisite(s): 221.

231 Fundamentals of Physics: Electricity and Magnetism (3) For engineers and majors in mathematics and the physical sciences. Required of all engineering students. (NS)

Contact Hour Distribution: 2 hours lecture and 3 hours lab/recitation.

(RE) Corequisite(s): Mathematics 142.

232 Fundamentals of Physics: Wave Motion, Optics, and Modern Physics (4) Continuation of 231. Required of all engineering students. (NS)

Contact Hour Distribution: 3 hours lecture and 3 hours lab/recitation.

(RE) Prerequisite(s): 231.

250 Fundamentals of Physics: Modern Physics (4) Fundamental concepts of modern physics and their applications to atomic, nuclear, particle, and condensed matter physics, with lab.

Credit Restriction: Students who have received credit for 240 may not receive credit for 250.

(RE) Prerequisite(s): 136 or 138.

311 Mechanics (3) Kinematics and dynamics of single particle systems. Rotating referencing systems.

(RE) Prerequisite(s): Computer Science 102.

(DE) Prerequisite(s): 138 or 136 or 231.

312 Mechanics (3) Many body systems, rigid bodies, and Lagrangian and Hamiltonian mechanics. Strong emphasis on programming and numerical methods.

(RE) Prerequisite(s): 311.

(RE) Corequisite(s): Mathematics 241.


(DE) Prerequisite(s): 138 or 136 or 231 or 311.

341 Introduction to Nuclear Physics (3) Introductory theoretical nuclear physics with emphasis on applied aspects. Primarily for nuclear engineering majors.

(RE) Prerequisite(s): 223 or 240.

342 Structure of Matter (3) Physics of molecules and condensed matter.

(RE) Prerequisite(s): 240 or 232.

361 Electronics Laboratory (3) Electronic devices and instrumentation techniques in the physics laboratory. Basic analog and digital electronics, including elementary building blocks of relevance to data acquisition systems, operational amplifiers, digital-analog and analog-digital conversion, use of standard laboratory instruments, and applications of microcomputers.

Contact Hour Distribution: 6 hours lab per week.

(DE) Prerequisite(s): 138 or 136 or 232.

362 Electronics Laboratory (3) Electronic devices and instrumentation techniques in the physics laboratory. Advanced instrumentation techniques applied to the study of electronic circuits as dynamic physical systems, feedback and stability, noise, discrete sampling, Fourier analysis and synthesis, and nonlinear circuit dynamics.

Contact Hour Distribution: 6 hours lab per week.

(DE) Prerequisite(s): 138 or 136 or 232.

380 Intermediate Physics I (3) Integrated topics in special relativity, classical mechanics, thermodynamics, statistical mechanics, electricity and magnetism, and quantum mechanics.

(RE) Prerequisite(s): 250.

381 Intermediate Physics II (3) Integrated topics in special relativity, classical mechanics, thermodynamics, statistical mechanics, electricity and magnetism, and quantum mechanics.

(RE) Prerequisite(s): 380.

382 Intermediate Physics III (3) Integrated topics in special relativity, classical mechanics, thermodynamics, statistical mechanics, electricity and magnetism, and quantum mechanics.

(RE) Prerequisite(s): 381.
401 A Survey of Physics (3) A survey of physics from earliest times to the present, emphasizing the unifying philosophical and mathematical principles. Classical theories of gravitation, electromagnetism, and relativity. Various forms of quantum mechanics, quantum electrodynamics, and recent theories of particles, fields, and their interactions. Consideration of the effects of physics on modern society and the practice of physics from a value-oriented perspective. Written reports on important original papers, thought-provoking problems combining different fields of classical physics, and a final oral and written report on some independent study. Registration Restriction(s): Physics major; minimum student level — senior. Registration Permission: Consent of instructor.

411 Introduction to Quantum Mechanics (3) Fundamental principles of quantum mechanics and methods of calculation. Solution of the Schrodinger equation for simple systems. Application to atomic, molecular, nuclear, and condensed matter physics. (RE) Prerequisite(s): 240 and Mathematics 435.

412 Introduction to Quantum Mechanics (3) Fundamental principles of quantum mechanics and methods of calculation. Solution of the Schrodinger equation for simple systems. Application to atomic, molecular, nuclear, and condensed matter physics. (RE) Prerequisite(s): 411.

421 Modern Optics (4) Transmission of light in uniform, isotropic media, reflection and transmission at interfaces. Mathematics of wave motion and interference effects. Rudiments of Fourier optics and holography. Contact Hour Distribution: 3 hours lecture and 3 hours lab. (DE) Prerequisite(s): 138 or 136 or 232. Registration Permission: Consent of instructor.

431 Electricity and Magnetism (3) Electrostatics, magnetostatics, and coupled electric and magnetic fields, Maxwell's Equations, and electromagnetic waves and radiation. (DE) Prerequisite(s): 138 or 136 or 232.

432 Electricity and Magnetism (3) Electrostatics, magnetostatics, coupled electric and magnetic fields, Maxwell's Equations, and electromagnetic waves and radiation. (RE) Prerequisite(s): 431.

441 Contemporary Physics I (3) An introduction to the major fields of contemporary physics – quantum mechanics, atomic and molecular physics, electromagnetic radiation, lasers, and quantum fluids. (RE) Prerequisite(s): 240 and 312.

442 Contemporary Physics II (3) An introduction to the major fields of contemporary physics – solid state physics, magnetism, nuclear physics, medical imaging, particle physics, and cosmology. (RE) Prerequisite(s): 441.

453 Team Research Project I (3) Student teams select the topic in consultation with the instructor and develop a plan for the project. Each team carries out the project with regular oral and written progress reports. Culuminating in a final report. (RE) Prerequisite(s): 361 and 461.

454 Team Research Project II (3) Student teams will carry out major experimental or computational projects that were planned and begun in 453. Regular oral and written progress reports culminate in a final report. (RE) Prerequisite(s): 453.

461 Modern Physics Laboratory (3) Introduction to fundamental and modern techniques in experimental physics and to the theory and practice of measurement and data analysis. Selected experiments in nuclear, atomic, molecular and solid state physics, and modern optics. Contact Hour Distribution: 6 hours lab per week. (RE) Prerequisite(s): 361. (DE) Prerequisite(s): 240 or 411.

462 Modern Physics Laboratory (3) Advanced experiments and experimental techniques in modern physics. Experimental team work. Thorugh quantum mechanical interpretation of the results and preparation of scientific reports. Contact Hour Distribution: 6 hours lab per week. (RE) Prerequisite(s): 461.

490 Senior Seminar (1-3) Topics of current interest. Repeatability: May be repeated with consent of department. Maximum 6 hours.

491 Foreign Study (3-15) Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (3-15) Repeatability: May be repeated. Maximum 15 hours.

493 Research and Independent Study (1-3) Research and study in field of particular interest with faculty guidance. Repeatability: May be repeated. Maximum 6 hours. Registration Permission: Consent of department.

Plant Sciences (791)

115 Plants for Health, Aesthetics, and Recreation (3) Introduction to the wide variety of plants used in society to enhance health, beautify surroundings and facilitate recreational activities. Exploration of how cultures value their trees, flowers, vegetables, fruits, herbs and grasses, with emphasis on landscaping, people/plant interactions, sports turf, organic gardening and nutrition.


220 Basic Landscape Plants (3) Identification, classification, adaptation, and culture and landscape design uses of basic ornamental trees, shrubs, and vines. Contact Hour Distribution: 2 hours and 1 lab.

226 Public Horticulture (2) Study of the public horticulture profession. Attention given to the diversity of public horticulture institutions, career opportunities, and research. Discussion of current topics and issues.

230 Interior Plantscaping (3) History and introduction of the interior plantscaping industry. Identification, culture, propagation, and use of plants for the commercial interior plantscape. Management of the interior environment including light, humidity, growing media, insects, and diseases. Commercial use of containers, planters, water features, and artificial plants.

240 Turfgrass Management (3) Practical turfgrass management. Cultivar selection, identification, and establishment. Basic fertility programs, mowing, irrigation practices, and thatch removal and compaction control. Pest identification and basic controls. Contact Hour Distribution: 2 hours lecture. Contact Hour Distribution: 2 hours lab. Comment(s): Students in turfgrass science and management concentration must also register for 241.

241 Turfgrass Management Lab (1) Laboratory addressing topics presented in 240. Contact Hour Distribution: 2-hour lab. (RE) Corequisite(s): 241.

250 Food and Fiber Plant Production (3) Introduction to important world crops and production systems. Emphasis on plant terminology, origin, distribution and use, world agro-ecosystems, environmental and economic sustainability, current technology in crop production.

280 Fundamentals of Landscape Design (3) History of landscape design as it relates to contemporary applications. Awareness and sensitivity to the landscape. Basic graphic skills and design theory with an emphasis on residential landscape planning. Introduction to landform, landscape materials, and planting design. Contact Hour Distribution: 1 hour and 2 labs.

290 Fall Herbaceous Ornamental Plants (3) Identification, culture, and landscape use of late summer and fall herbaceous ornamental plants including annuals, perennials, herbs, and ornamental grasses. Basic gardening practices and design elements using such herbaceous ornamental plants. (RE) Corequisite(s): 210.

291 Spring Herbaceous Ornamental Plants (3) Identification, culture, and landscape use of spring and early summer herbaceous ornamental plants including annuals, perennials, herbs, bulbs, and wildflowers. Basic gardening practices and design elements using such herbaceous ornamental plants. (RE) Corequisite(s): 210.

328 Conservatories: Management, Operations, and Display (1) Study of the history, value, and role of public garden conservatories. Management, operations, and display of plants in controlled environments for research, conservation, and public education and entertainment. (RE) Prerequisite(s): 226.

329 Horticultural Interpretation: Educational Programming for Adults and Children (1) Strategic planning, programming, and budgeting for adult and youth education within a public garden. Contact Hour Distribution: 2 hours and 1 lab. (RE) Prerequisite(s): 210 and Biology 112. (DE) Prerequisite(s): Biology 111.
331 Interpreting Research Findings (1) Basic statistical concepts required for understanding and evaluating research findings. Recommended Background: 2 mathematics courses. Registration Restriction(s): Minimum student level – junior.

341 Integrated Turfgrass Management and Environmental Benefits (2) Utilization of resources available to the turfgrass manager (e.g., extension, research, professional associations). Benefits of turfgrass in the environment, including bioturbation, urban greenery, and carbon sequestration. (RE) Prerequisite(s): 240 and Biology 112. (DE) Prerequisite(s): Biology 111.

343 Turfgrass Entomology (1) Biological study and collection of arthropods that challenge maintenance of healthy grasses, turf, and sod. Review and discussion of sampling/monitoring strategies and decision-making guidelines to help manage turfgrass pests. (RE) Prerequisite(s): 240 and Biology 112. (DE) Prerequisite(s): Biology 111.

348 Landscape Plant Physiology (2) Physiological principles as they relate to landscape design and construction, turfgrass management, and public horticulture – photosynthesis and transpiration, respiration, water and hormonal relations, mineral nutrition, plant development, and response to the environment. (RE) Prerequisite(s): 210 and Biology 112. (DE) Prerequisite(s): Biology 111. Registration Restriction(s): 2.25 GPA.

350 Basic Landscape Construction (3) Basic materials and detailing. Introduction to the landscape construction and contracting industry. Application of landscape materials, wood, concrete and masonry construction. Site drainage and landscape grading. Contact Hour Distribution: 2 hours and 1 lab. (RE) Prerequisite(s): 280.

353 Plant Genetics, Breeding, and Biotechnology (3) Genetic principles and techniques used in plant modification. Principles of molecular, transmission and quantitative genetics as applied to plant breeding. (RE) Prerequisite(s): Biology 111 and Biology 112.

360 Practicum in Landscape Construction (3) Practical experience in implementation of landscape development projects. Directed lab and field instruction in planting operations and basic landscape construction including interpreting and implementing landscape design drawings and specifications. Contact Hour Distribution: Two 3-hour labs. (RE) Corequisite(s): 350.

370 Grounds Maintenance (3) Identification and understanding of maintenance tasks, transplanting, soil amendments, growth control, irrigation, climate protection, and pest control. Maintenance and use of equipment; management practices. Contact Hour Distribution: 2 hours and 1 lab. (RE) Prerequisite(s): 210.


410 Nursery Management and Production (3) Management methods as applied to retail and wholesale nurseries and landscape contracting firms. Methods of producing liners, container and field-grown woody liners, containers and field-grown ornamental plants. (RE) Prerequisite(s): 330 and Environmental and Soil Sciences 210. (DE) Prerequisite(s): 220.

421 Native Plants in the Landscape (3) Native plants and plant communities as a basis for landscaping and environmental restoration. Weekly lecture coupled with either an outing or service practicum of invasive exotic plant removals or planting of natives. Study and work sites will primarily be demonstration projects of the University of Tennessee Environmental Landscape Design Lab. They include local schoolyard habitats, greenways, wetlands, streambanks, and shorelines. (RE) Prerequisite(s): 220 or Ecology and Evolutionary Biology 330. (DE) Prerequisite(s): 210.

427 Management and Administration of Public Horticulture Institutions (2) Management of resources in non-profit institutions, support organizations, and communities. Theoretical framework and institutional mission, strategic planning and programming, financial accounting and budgeting, development and fund raising, personnel policies, volunteer development, marketing and publicity, legal issues, relationships between staff and governing boards, the use of information technology in management and development systems, and conservation/preservation roles in community development. (RE) Prerequisite(s): 226 and 210.

429 Field Study of Public Horticulture Institutions (2) Extended 10-12 day field study of various public horticulture institutions such as botanical gardens, arboreta, historical grounds, zoos, conservatories, cemeteries, and nature preserves. Application and travel fee required. (RE) Prerequisite(s): 226 and 210.

430 Greenhouse Management (3) Principles of greenhouse operation and management for commercial crop production. Greenhouse construction and operation, crop scheduling, and cost accounting. Environmental inputs and cultural practices as they affect plant physiological processes and influence plant growth and development. Contact Hour Distribution: 2 hours lecture and one 2-hour lab. (RE) Prerequisite(s): Agriculture and Natural Resources 290 or Computer Science 100.

434 Fruit and Vegetable Crops (3) Botanical description, geographical distribution, general cultural practices of warm and cool season vegetables, small fruits, and deciduous tree fruits. A Saturday field trip is required. Contact Hour Distribution: 2 hours lecture and one 2-hour lab. (RE) Prerequisite(s): 210 and Biology 112. (DE) Prerequisite(s): Biology 111.

435 Field and Forage Crops (2) Agronomic principles of crop production and management. Crop improvement, cropping systems, tillage, fertilization, pest management, and harvest and utilization of major field and forage crops. Contact Hour Distribution: 2 hours and 1 lab.

436 Plant and Garden Photography (2) Principles and techniques of photography as they relate to plants and gardens. Study of equipment options and field shooting under various weather conditions and in different seasons. Registration Restriction(s): Minimum student level – senior.

437 Public Garden Operations and Management (2) An analysis of year-round operations and management of public gardens. Case studies involving time and labor management, budget development and management, implementation of volunteer programs, information dissemination methods for public outreach, and management of grounds and facilities using the University of Tennessee Institute of Agriculture Gardens as a model. (RE) Prerequisite(s): 226 and 210.

448 Horticultural Internet Technology (3) Creation and management of information resources for the Internet with a focus on development of visual and oral communications skills through a series of individual and team exercises in writing, graphics, and public speaking. (WC) (DE) Prerequisite(s): Communication Studies 210 or 240. Registration Restriction(s): Minimum student level – senior.

449 Advanced Turfgrass Management (2) Principles and scientific basis of turfgrass culture. Adaptation, ecology, physiology, climatic influences on grass culture. Clipping, water management, and design. Contact Hour Distribution: 1-hour lecture and one 1-hour lab. (RE) Prerequisite(s): 240 and Biology 112. (DE) Prerequisite(s): Biology 111.

452 Field Study of Public Horticulture Institutions (2) Extended 10-12 day field study of various public horticulture institutions such as botanical gardens, arboreta, historical grounds, zoos, conservatories, cemeteries, and nature preserves. Application and travel fee required. (RE) Prerequisite(s): 226 and 210.

454 Horticultural Therapy (3) Introduction to the application of horticulture as therapy for treatment, rehabilitation, and/or training of individuals with disabilities. (RE) Prerequisite(s): 210 and 226. Registration Restriction(s): Minimum student level – senior.

458 Horticultural Internet Technology (3) Creation and management of information resources for the Internet with a focus on development of visual and oral communications skills through a series of individual and team exercises in writing, graphics, and public speaking. (WC) (DE) Prerequisite(s): Communication Studies 210 or 240. Registration Restriction(s): Minimum student level – senior.

459 Advanced Turf Practicum (1-3) Experiences in active turf projects in the UT Gardens under supervision of staff members. Student should make arrangements for practicum with a faculty mentor prior to enrollment. Repeatability: May be repeated. Maximum 3 hours. Registration Restriction(s): Minimum student level – junior. Registration Permission: Consent of instructor.

459 Botanic Garden Practicum (1-3) Experiences in active public horticulture projects in the UT Gardens under supervision of staff members. Student should make arrangements for practicum with a faculty mentor prior to enrollment. Repeatability: May be repeated. Maximum 3 hours. Registration Restriction(s): Minimum student level – junior. Registration Permission: Consent of instructor.

459 Turfgrass Management (2) Principles of landscape design and construction, turfgrass management, and public horticulture – photosynthesis and transpiration, respiration, water and hormonal relations, mineral nutrition, plant development, and response to the environment. (RE) Prerequisite(s): 210 and Biology 112. (DE) Prerequisite(s): Biology 111. Registration Restriction(s): 2.25 GPA.

464 Field Study of Public Horticulture Institutions (2) Extended 10-12 day field study of various public horticulture institutions such as botanical gardens, arboreta, historical grounds, zoos, conservatories, cemeteries, and nature preserves. Application and travel fee required. (RE) Prerequisite(s): 226 and 210.

464 Horticultural Therapy (3) Introduction to the application of horticulture as therapy for treatment, rehabilitation, and/or training of individuals with disabilities. (RE) Prerequisite(s): 210 and 226. Registration Restriction(s): Minimum student level – senior.

468 Horticultural Internet Technology (3) Creation and management of information resources for the Internet with a focus on development of visual and oral communications skills through a series of individual and team exercises in writing, graphics, and public speaking. (WC) (DE) Prerequisite(s): Communication Studies 210 or 240. Registration Restriction(s): Minimum student level – senior.

469 Advanced Turf Practicum (1-3) Experiences in active turf projects in the UT turfgrass sciences and management program under supervision of staff members. Student should make arrangements for practicum with a faculty mentor prior to enrollment. Repeatability: May be repeated. Maximum 3 hours. Registration Restriction(s): Minimum student level – senior. Registration Permission: Consent of instructor.

470 Specialty Landscape Construction (3) Methods of design, materials, and construction techniques for specialized components of the landscape industry. Irrigation systems, outdoor lighting, garden ponds, and water features.
451 Plant Tissue Culture (3) [See Entomology and Plant Pathology 451.]

454 Plant Biotechniques (3) Lectures will discuss recombinant DNA technology, molecular assessment of economically important crops, gene cloning, and transformation technologies. Examples will be given of food and ornamental crops, pharmaceuticals, and renewable energy sources produced using biotechnology, as well as potential risks of this technology. Labs will include electrophoresis, tissue culture, plasmid preps, genomic DNA preps, PCR, plant transformation, and genomic techniques.

457 Weed Management (2) Principles of weed interference, integrated management, and herbicide selectivity and behavior. Specific recommendations for various crop and non-crop situations.

458 Turf Weed Management Lab (1) Laboratory addressing practices and principles presented in 457 from the standpoint of turf.

459 Agronomy Weed Management Lab (1) Laboratory addressing practices and principles presented in 457 from the standpoint of agronomy.

460 Professional Practices in Landscape Construction and Management (3) Professionalism, salesmanship, proposals, bidding, estimating, specifications, and contract management in the landscape services industry. Computer technology applicable to landscape construction and contracting industry. Includes presentations by industry representatives.

461 Statistics for Biological Research (3) Application of statistics to interpretation of biological research. Notation, descriptive statistics, probability distributions, confidence intervals, t- and chi-square tests. Analysis of variance, mean separation procedures, and linear regression and correlation.

469 Teaching Practicum (1-2) Supervised experience in teaching. May involve preparation of lectures and teaching aids, preparation and supervision of laboratory exercises, evaluation of student performance.


480 Advanced Landscape Design (4) Comprehensive application of landscape design skills to a variety of project experiences with an emphasis on landscape planning and analysis, planting design, and materials estimating.

481 Introduction to Politics (3) An introduction to the concepts, enduring questions, and significant thinkers associated with political philosophy. Focus on the knowledge and principal concerns of political science as a social science.

482 Contemporary Issues (3) Analysis and exploration of the American political system for students with superior ability.

487 Undergraduate Research Participation (1-3) Experiences in active research projects under supervision of staff members. Student should make arrangements for research project with instructor prior to enrollment.

492 Internship in Horticultural and Plant Sciences (1-3) Supervised work experience with a departmentally-approved employer within the ornamental horticulture, turfgrass, production horticulture, or field crop毛泽东思想概论, values, and practices. Writing-emphasis course.

493 Problems in Horticultural and Plant Sciences (1-3) Supervised individual problems relating to the plant sciences or landscape design. Repeatability: May be repeated. Maximum 6 hours.

494 Professional Horticultural Communications (3) Communication for public horticulturists through written, oral, and visual media. Emphasis on communication skills using proper writing techniques and grammar for print media, brochure design using desktop publishing, slide show developments, oral presentations, and video use, educational and informational presentations in ornamental horticulture.

Political Science (801)

101 United States Government and Politics (3) Introduction to fundamental institutions and processes of American national politics including the Constitution, voting, the Presidency, the Congress and the courts.

102 Introduction to Political Science (3) Introduction to politics and political systems emphasizing government in a cross-national and global perspective. Focus on the knowledge and principal concerns of political science as a social science.

107 Honors: United States Government and Politics (3) Analysis and exploration of the American political system for students with superior ability.

300 Introduction to Political Philosophy (3) An introduction to the concepts, enduring questions, and significant thinkers associated with political philosophy with specific attention to differing conceptions of human nature, politics, the state, civic obligation and rights, freedom, justice, and democracy.

301 Contemporary Issues in American Public Policy (3) Selected public policy issues confronting the nation, including the background, nature, and effects of present policies, and options for the future. Writing-emphasis course.

312 Popular Culture and American Politics (3) Popular culture related to American politics and government focusing on the role of film, television, fiction, music, drama, art, and sports. Writing-emphasis course.

320 State Government and Politics (3) Setting, institutions, and processes of government in the 50 states. Generalizations and comparisons with emphasis on federalism and intergovernmental relations.


330 Law in American Society (3) Law as a process through which social problems are addressed in the United States. Examples from case law, legislation, and administrative regulation. Writing-emphasis course.

340 Introduction to Public Administration and Public Policy (3) Public agencies, their organization, personnel, financial management, and administrative responsibility. The policy-making process and political environment.

341 Judicial Process and Policymaking (3) Courts as components of political systems and public policy-making through judicial decision-making. Writing-emphasis course.

350 Political Change in Developing Areas (3) Characteristics and problems of political changes with primary focus on developing areas. Writing-emphasis course.

351 Judicial Process and Policymaking (3) Courts as components of political systems and public policy-making through judicial decision-making. Writing-emphasis course.

361 Politics in Western Democracies (3) Political culture patterns and institutions of western democratic systems. Writing-emphasis course.

365 Introduction to International Relations (3) Resource availability, international economics, international security and peace (imperialism, war, diplomacy, the balance of power, international law, and international organization). Writing-emphasis course.

366 United States Foreign Policy Process (3) Processes whereby United States foreign policies are made and implemented, focusing on interaction within federal bureaucracy and roles of the President, Congress, the press, and public opinion.

370 Contemporary International Problems (3) Analysis of current international events.

374 American Political Thought (3) Major themes and ideas in American political thought related to the development of American political institutions, values, and practices. Writing-emphasis course.

387 Junior Honors Seminar (3) Required of students in honors concentration.

Registration Permission: Consent of department.
388 Junior Honors Seminar (3) Required of students in honors concentration.  
Registration Permission: Consent of department.

401 Political Analysis (3) Nature, character, and functions of research design, data collection, and statistical techniques used in the study of politics. (Same as Legal Studies 401.)


410 Special Topics in Political Science (3)  
Repeatability: May be repeated. Maximum 6 hours.


420 Political Attitudes and Behavior (3) Systematic examination of political attitudes, public opinion, and political behavior. (Same as American Studies 420.)

421 Political Parties and Interest Groups (3) Analysis of political parties, interest groups, campaigns, and elections.

425 Media and Politics (3) Examines the interrelationship between the political system and the media from a political science perspective.

430 United States Constitutional Law: Sources of Power and Restraint (3) Judicial review, constitutional powers of the President and Congress, federalism, sources of regulatory authority, and constitutional protection of political and economic rights. (Same as Legal Studies 430.)

431 United States Constitutional Law: Civil Rights and Liberties (3) Current issues in civil rights and liberties, including first amendment freedoms, equal protection, privacy, and the rights of the accused. (Same as Legal Studies 431.)

435 Criminal Law and Procedure (3) An overview of substantive and procedural law in the criminal justice field with emphasis on constitutional questions and public policy issues. (Same as Legal Studies 435.)

440 Public Management and Human Resources (3) Semester long simulation of a public organization in which student groups plan, organize, direct, teach, and evaluate within a tightly-structured framework.

441 Public Budgeting (3) The process, participants, and politics of government budgeting with emphasis on federal government budgeting. Includes an overview of budget reform measures and their effectiveness.

442 Administrative Law and Regulatory Policymaking (3) Legal and political dimensions of rulemaking, enforcement and adjudication by executive agencies. (Same as Legal Studies 442.)

445 Administration of Justice (3) Administration and processes of justice system, including judicial administration and decision making in trial and appellate courts. (Same as Legal Studies 445.)

446 Housing (3) Nature and demand for housing in the U.S. and abroad. U.S. experience. Private market processes and public influences. Problems of change in housing supply, impact of new technology, and governmental programs to increase supply and quality of housing.

451 Ethnic Conflict in Foreign Countries (3) Examines political and violent conflict among ethnic and national groups and the challenges these conflicts pose for democratic and democratizing states.

452 Black African Politics (3) Recent evolution and current political environment of black African nations. Writing-emphasis course. (Same as Africana Studies 452.)

454 Government and Politics of China and Japan (3) Political setting, structure, and political processes in China and Japan. Writing-emphasis course.

456 Latin American Government and Politics (3) Introduction to the political development of Latin America with an emphasis on contemporary politics. Writing-emphasis course. (Same as Latin American Studies 456.)

459 Government and Politics of Russia and Eastern Europe (3) System transformation, political processes, and governmental structure in Russia and Eastern European countries. Writing-emphasis course.

461 Policy Making in Democracies (3) Comparative approach to theory and process of making public policies.

463 Contemporary Middle East Politics (3) Governments and movements in the Middle East, their characteristics, bases, and interrelationships.

467 International Law (3) Nature and development of international law and compliance with it. Particular attention to function of international law in the context of international conflict. (Same as Legal Studies 470.)

471 International Political Economy (3) The politics of international economics. Topics include globalization, development, trade, crime, the IMF, the WTO, the environment, and challenges to the status quo.

473 Negotiation, Bargaining, and Diplomacy (3) Diplomacy, negotiation, and foreign policy decision-making. Theories of diplomacy and negotiation are applied in a simulation focusing on issues from international crime and global economic stability to world health and the environment.

474 International Organization (3) Constitutional framework and key functions of the United Nations. Topics include collective security, peace-keeping, human rights, development, regional organizations, and the role of the Secretary-General.

475 Ancient and Medieval Political Thought (3) Major western political thinkers from Socrates to Marsilio of Padua. (Same as Medieval Studies 475.)

476 Modern Political Thought (3) Major western political thinkers from Machiavelli to Marx.

487 Senior Honors: Thesis and Seminar (3) Required of students in honors concentration.  
Registration Permission: Consent of department.

488 Senior Honors: Thesis and Seminar (3) Required of students in honors concentration.  
Registration Permission: Consent of department.

491 Foreign Study (1-15)  
Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15)  
Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15)  
Repeatability: May be repeated. Maximum 15 hours.

494 Internship (1-6)  
Grading Restriction: Satisfactory/No Credit grading only.  
Repeatability: May be repeated. Maximum 6 hours.  
Credit Restriction: May not be applied toward the political science major or minor.

499 Service Learning in Political Science (1) Provides framework for participation in service to community. Students assist classes at local schools or perform supervised service to local public service organizations or government institutions.  
Grading Restriction: Satisfactory/No Credit grading only.  
Repeatability: May be repeated. Maximum 3 hours.  
Comment(s): Course can only be taken in conjunction with a section of an undergraduate political science course numbered 300 or above that is designated by instructor as having a service-learning component.  
Registration Permission: Consent of department head.

Portuguese (811)

111 Elementary Portuguese (3) Introduction to Portuguese. Language laboratory required.

112 Elementary Portuguese (3) Introduction to Portuguese. Language laboratory required.  
(Re) Prerequisite(s): 111.

211 Intermediate Portuguese (3) Stresses reading, writing, listening, and speaking of Portuguese to prepare for upper-division courses in the language. Language laboratory required. (CC)  
(Re) Prerequisite(s): 112.

212 Intermediate Portuguese (3) Stresses reading, writing, listening, and speaking of Portuguese to prepare for upper-division courses in the language. Language laboratory required. (CC)  
(Re) Prerequisite(s): 211.

301 Literature, Culture, and Civilization of the Portuguese-Speaking World (3) A course for students who have completed the intermediate sequence of Portuguese and wish to enhance their knowledge of language and culture through the medium of literature. Taught in Portuguese.  
(Re) Prerequisite(s): 212 or 400.

302 Literature, Culture, and Civilization of the Portuguese-Speaking World (3) A course for students who have completed the intermediate sequence of Portuguese and wish to enhance their knowledge of language and culture through the medium of literature. Taught in Portuguese.  
(Re) Prerequisite(s): 212 or 400.
309 Intermediate Conversation and Composition (3) Designed to improve proficiency in oral and written communication in Portuguese.
(RE) Prerequisite(s): 212 or 400.

315 Aspects of Luso-Brazilian Literature (3) Selected writers, trends, and artistic movements set against a broad background of cultural, socio-political, and historical developments. Writing-emphasis course. (Same as Latin American Studies 315.)
Repeatability: May be repeated if topic differs. Maximum 6 hours.
(RE) Prerequisite(s): 212.

326 Brazilian Cinema (3) A study of Brazilian cinema in light of political, cultural, and social contexts. Films and documentaries are shown in Portuguese with English subtitles. Topics may vary. Writing-emphasis course. (Same as Cinema Studies 326, Latin American Studies 326.)
Repeatability: May be repeated. Maximum 6 hours.

400 Portuguese for Speakers of Another Romance Language (3) Accelerated class for beginning students of Portuguese with a strong background in another Romance language. Introduction to grammar, reading, and culture of Portugal and Brazil.
Recommended Background: 3 hours at the 300 level in another Romance language.

409 Advanced Conversation and Composition (3) Informal and structured conversation on contemporary topics (business, politics, economics, religion, culture) and formal writing practice at an advanced level.
Recommended Background: 3 hours at the 300 level in Portuguese.

430 Contemporary Brazilian Studies (3) Current Brazilian cultural, political and racial issues placed in a historical perspective with a comparative emphasis. Topics may vary. Writing-emphasis course. (Same as Latin American Studies 430.)
Repeatability: May be repeated. Maximum 12 hours.
Comment(s): Open to non-majors. Majors will read texts and write papers in Portuguese.

432 Topics in the Literature and Culture of the Portuguese-speaking World (3) Examination of the socio-political environment, literary works, and other important cultural practices of the Portuguese-speaking world. Topics may vary. Writing-emphasis course. (Same as Latin American Studies 432.)
Repeatability: May be repeated. Maximum 12 hours.

490 Internship (1-15) Career-related experiences in the United States or abroad.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 15 hours.
Registration Restriction(s): Language and world business (Portuguese) concentration.

491 Foreign Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.
Registration Permission: Consent of instructor.

Psychology (830)

110 General Psychology (3) Introduction to primary approaches to the study of human behavior and experience. (SS)

117 Honors: General Psychology (3) (SS)
Recommended Background: Chancellor’s Honors Program participant.
Registration Permission: Consent of instructor.

210 Biological Basis of Behavior (3) Survey of theories and research concerning the role of genetic factors, nervous and endocrine systems, and other biological influences on behavior.
(Re) Prerequisite(s): 110 or 117.

220 Behavior and Experience: Humanistic Psychology (3) Behavioral and phenomenological analysis of individuals and their development in natural environments.
(Re) Prerequisite(s): 110 or 117.

295 Research Analysis in Psychology (3) An introduction to the research methods and data analyses used in psychological research. This course should be taken as soon as possible after declaring a major in psychology.
(Re) Prerequisite(s): 110 or 117.

300 Child Psychology (3) The normal child from conception through infancy, childhood, and adolescence. Physical, cognitive, social, and emotional development.
(Re) Prerequisite(s): 110 or 117.

310 Learning and Thinking (3) Survey of theory and findings of research concerning both humans and non-humans.
(Re) Prerequisite(s): 110 or 117.

320 Motivation (3) Survey of theories and related research. Discussion of applications.
(Re) Prerequisite(s): 110 or 117.

(Re) Prerequisite(s): 110 or 117.

347 Honors Seminar (1) Classic works in psychology. Professional and ethical issues in psychology. Presentations of faculty scholarship and honors students’ projects. Meets weekly.
Repeatability: May be repeated. Maximum 6 hours.
(Re) Prerequisite(s): 110 or 117.

360 Social Psychology (3) Theories, methods, and findings of research concerning individual behavior in a social context.
(Re) Prerequisite(s): 110 or 117.

367 Psychology Honors Project (3) Independent studies course which leads to the honors thesis. Student must have plan of study approved by mentor prior to enrollment.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 15 hours.
(Re) Prerequisite(s): 110 or 117.

370 Ethology and Sociobiology (3) (See Ecology and Evolutionary Biology 370.)

382 Contemporary Topics in Psychology (3) Current issue or problem, such as architectural psychology, impact of technology, artificial intelligence, or stereotypes. Different topic each semester.
Repeatability: May be repeated. Maximum 9 hours.
Credit Restriction: Maximum of 6 hours may be applied toward major.
(Re) Prerequisite(s): 110 or 117.

385 Statistics in Psychology (3) Descriptive statistics. Logic of hypothesis-testing and statistical inference. Basic parametric and nonparametric tests.
(Re) Prerequisite(s): 110 or 117.

395 Methods of Research in Psychology (3) Fundamentals in the design, conduct, and interpretation of research, including systematic observation, experiments, quasi-experiments, and program-evaluations. Focus on both laboratory and natural settings.
(Re) Prerequisite(s): 385 or Mathematics 115.
Registration Restriction(s): Minimum student level – junior.

399 Supervised Research and Field Work (1-3) Field experience in community-based research and service settings.
Repeatability: May be repeated. Maximum 6 hours.
Credit Restriction: Any combination of 6 hours of 399, 489, 491, 492, 493 may be used in major. An additional 6 hours may be used as electives.
(Re) Prerequisite(s): 110 or 117.

Nature, use, and development of language.
(Re) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

409 Group Facilitation (3) Study of theory and technique through supervised experience in small groups.
Repeatability: May be repeated. Maximum 6 hours.
(Re) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

410 Sensory Processes and Perception (3) Physiological and psychological theories of perception. Emphasis on audition and vision.
(Re) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

415 Psychology of Religion (3) History of the psychology of religion with an examination of various philosophical and empirical orientations. Exploration of the psychological function of religion for individuals and society. (Same as Religious Studies 415.)
(Re) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

420 History and Systems of Psychology (3) History of psychological thought. Classical approaches and recent developments.
(Re) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

424 Psychology and the Law (3) Psychological aspects of legal systems.
(Re) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.
430 Health Psychology (3) Psychological factors related to health and illness, including stress, personality, and environment. Applications of psychological treatments to physical illness.
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.


434 Psychology of Gender (3) Biological, psychological, and social factors in gender. Importance of gender roles and stereotypes for behavior and experience. (Same as Women's Studies 434.)
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

440 Organizational Psychology (3) Social-psychological analysis of organizations emphasizing role-theory and systems theory. (Same as Management 440.)
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

(RE) Prerequisite(s): 385 or Mathematics 115.
Registration Restriction(s): Minimum student level – junior.

450 Comparative Animal Behavior (3) (See Ecology and Evolutionary Biology 450.)

459 Comparative Animal Behavior Laboratory (3) (See Ecology and Evolutionary Biology 459.)

461 Physiological Psychology (3) Nervous system and physiological correlates of behavior. Biological basis of emotion, learning, memory, and stress.
(RE) Prerequisite(s): 110.

467 Psychology Honors Thesis (3) Independent study for writing and oral defense of honors thesis.
Grading Restriction: Satisfactory/No Credit grading only.

470 Theories of Personality (3) Major theories of human personality and their development.
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

475 Adolescent Development (3) Theoretical perspectives and empirical research findings pertinent to adolescent development.
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

480 Theories of Learning (3) Classical and current approaches to learning and cognition.
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

482 Topics in Psychology (3) Intensive analysis of special topics, such as African-American psychology or evaluation of programs in the community.
Repeatability: May be repeated. Maximum 6 hours.
Credit Restriction: No more than 6 hours of 382, 482 may be applied toward the major. An additional 6 hours of 382, 482 may count as electives.
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – junior.

489 Supervised Research (1-9)
Repeatability: May be repeated. Maximum 12 hours.
Credit Restriction: Any combination of 6 hours of 399, 499, 491, 492, or 493 may be used in the major. An additional 6 hours may be used as electives.
(RE) Prerequisite(s): 110 or 117.

491 Foreign Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.
(RE) Prerequisite(s): 110 or 117.

492 Off-Campus Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.
Credit Restriction: Any combination of 6 hours of 399, 499, 492, and 493 may be applied toward the major. Any combination of 6 hours of 399, 499, 491, 492, or 493 may be applied toward the major. An additional 6 hours may be used as electives.
(RE) Prerequisite(s): 110 or 117.

493 Independent Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.
Credit Restriction: Any combination of 6 hours of 399, 499, 491, 492, or 493 may be applied toward the major. An additional 6 hours may be used as electives.
(RE) Prerequisite(s): 110 or 117.

496 Senior Seminar: Great Ideas in Psychology (3) Key ideas that have shaped conceptions of humankind. Exploration of historical development, scientific evolution, and larger social context. Writing-emphasis course.
(RE) Prerequisite(s): 110 or 117.
Registration Restriction(s): Minimum student level – senior.

Public Health (389)

300 Introduction to Public Health (3) Aspects of public health including discussion of contemporary and controversial health issues.

305 Disease Epidemiology, Prevention, and Control (3) Foundations of epidemiology applied to infectious, acute, and chronic diseases. Emphasis on the applications of public health prevention and control initiatives throughout the disease cycle.
(RE) Prerequisite(s): Biochemistry and Cellular and Molecular Biology 230.

400 Consumer Health (3) (See Health 400.)

493 Directed Independent Study (1-3)
Individual study of selected issues.
Repeatability: May be repeated. Maximum 6 hours.
Registration Permission: Consent of instructor.

Public Relations (841)

270 Public Relations Principles (3) Theories and principles of public relations. Overview of public relations in management of business, government, institutions and organizations. Brief case studies and public relations projects.

320 Public Relations Communication (3) Mechanics of effective writing for various media to achieve organizational goals. Overview of governing communication and persuasion theories. Focus on implementation of research-based, planned, and managed techniques in a lab setting.
(RE) Prerequisite(s): 270 and Advertising 310.
Registration Restriction(s): Public relations major.

370 Public Relations Cases (3) Oral and written analysis of current and classic case studies in public relations. Ethics, professional organizations, publications, research, and forms of public relations. Methods of communication and persuasion.
(RE) Prerequisite(s): Advertising 340.
Registration Restriction(s): Public relations major.

Registration Restriction(s): Public relations major.

470 Public Relations Campaigns (3) Research, planning, and communication and evaluation of major public relations campaigns. Oral and written presentation of a public relations project from inception to completion. Requires extensive out-of-class work.
(RE) Prerequisite(s): 320 and 370.
Registration Restriction(s): Public relations major.

490 Special Topics (3) Topics vary.
Repeatability: May be repeated. Maximum 6 hours.
(RE) Prerequisite(s): 320.
Registration Restriction(s): Public relations major.

491 Foreign Study (1-15) Approval of hours and topic by advisor required prior to registration.
Repeatability: May be repeated. Maximum 15 hours.
Registration Restriction(s): Public relations major.

492 Field Experience (1-2) Approved internships and other supervised practice in public relations.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 4 hours.
Registration Restriction(s): Public relations major.

493 Independent Study (3)
Repeatability: May be repeated. Maximum 6 hours.
Registration Restriction(s): Public relations major.

Reading Education (847)

430 Elementary and Middle School Developmental Reading Instruction (2) Word recognition (including phonics), comprehension, evaluation, and materials.
Registration Restriction(s): Qualification – admission to teacher education.

461 Developing Reading Skills in Content Fields (3) Teaching reading and study skills in content areas of the school program. Extensive assessment of textbooks. Emphasis on middle school and high school.
Recreation and Leisure Studies (853)

100 Orientation to Recreation and Leisure Studies (1) Overview of discipline and professional areas for incoming recreation and leisure studies majors.

201 Foundations of Recreation and Leisure and Principles of Leadership (4) Introduction to the recreation and leisure profession focusing on understanding concepts, philosophy, career opportunities, and professional practices in leisure service industries. The required lab focuses on the application and practice of theories of leadership.

290 Practicum in Recreation and Leisure Studies (2) Supervised practice in approved agencies offering programs in recreation and leisure services. Each hour of credit requires 50 clock-hours of work. Grading Restriction: Satisfactory/No Credit grading only. (RE) Corequisite(s): 201. Registration Restriction(s): Recreation and leisure studies major; 2.50 GPA.

310 Development and Evaluation of Recreation and Leisure Programs (3) Essential elements and principles in the organization, administration, marketing, and evaluation of various types of recreation programs. Emphasis on development of program objectives. Practical and comprehensive program designs and evaluation for population and facility within student’s area of interest. (DE) Prerequisite(s): 201. Comment(s): With consent of instructor, prior knowledge may satisfy prerequisite.

320 Therapeutic Recreation and Special Populations (3) Principles, concepts, historical development of recreation, therapeutic recreation, and leisure services for special population. Discussion and exploration of legislation, attitudes, barriers to participation, inclusion and advocacy as related to leisure fulfillment. Discussion of various disabilities, illnesses, and conditions that impact one’s lifestyle.

325 Therapeutic Recreation and Lifestyle Planning (3) Emphasis on how therapeutic recreation specialists can use the application of healthy lifestyle principles as a treatment modality. Importance and role of recreation/leisure participation (humor, stress-management, self-responsibility, fitness) in the planning and delivery of therapeutic recreation service for individuals with disabilities. Introduction to specific facilitation techniques, e.g., values clarification, etc., that may be applicable to therapeutic recreation.

390 Practicum in Recreation and Leisure Studies (2) Supervised practice in approved agencies offering programs in recreation and leisure services. Each hour of credit requires 50 clock-hours of work. Grading Restriction: Satisfactory/No Credit grading only. (RE) Prerequisite(s): 290. Registration Restriction(s): Recreation and leisure studies major; 2.30 GPA.

410 Management Concepts of Recreation, Leisure, and Sport Programs (3) Principles for operationalizing recreation and leisure and sport-related programs. Units address utilizing research as a management tool, assessing program cost, facility utilization and evaluation, and contemporary management concepts. (DE) Prerequisite(s): 310. Comment(s): With consent of instructor, prior knowledge may satisfy prerequisite.

415 Development of Recreation, Leisure, and Athletic Facilities (3) Principles of designing, planning, equipping, and operating various facilities. Elements of risk management and safety are incorporated into the design process. (DE) Prerequisite(s): 310. Comment(s): With consent of instructor, prior knowledge may satisfy prerequisite.

420 Principles of Therapeutic Recreation (3) Principles and practices in therapeutic recreation, including activity analysis, activity and program selection. Also, individual and program assessment, developing treatment plans, proper documentation and professional issues will be discussed. Registration Permission: Consent of instructor.

425 Therapeutic Recreation Programming (3) Principles and practices of therapeutic recreation programming for individuals with multiple disabilities. Focus is on the social, interpersonal, and behavioral aspects of working with children and young adults with disabilities in recreational environments. Contact Hour Distribution: Includes lab.

430 Organization and Administration of Leisure Services (3) Principles of administration applied to provision of leisure services offered by public, private, non-profit, and/or commercial enterprises. Organizational structures, human resource management, diversity, evaluation, legal authority, introduction to budgeting and fiscal procedures, professional responsibilities, and career management. (DE) Prerequisite(s): 310. Comment(s): With consent of instructor, prior knowledge may satisfy prerequisite.

440 Dimensions of Commercial Recreation and Leisure Enterprises (3) Organizational structures, delivery systems, financing private enterprises, and operating selected profit centers in a variety of settings. Special attention is given to market performance and economic impact. Registration Permission: Consent of instructor.

450 Special Topics in Recreation and Leisure Studies (1-6) Development of special topics in recreation/therapeutic recreation and leisure. Repeatability: May be repeated. Maximum 6 hours.

470 Tourism and Leisure Industries (3) An examination of the symbiotic relationship between tourism and various sectors of the leisure industry. Use of resources, both natural and developed, and the economic impacts of these ventures enhance appreciation of both cultural impacts upon the venue and how the venue impacts the local population. Registration Restriction(s): 2.30 GPA.

490 Internship in Recreation and Leisure Studies (12) Required of all majors. Application of previous theoretical and applied knowledge and skills in an appropriate recreation/leisure setting. The internship is intended to simulate a full-time (40 hours/week) professional level work experience during the entire semester. Therapeutic Recreation Internship must meet NCTRC national guidelines. Grading Restriction: Satisfactory/No Credit grading only. (RE) Prerequisite(s): 290 and 390. Registration Restriction(s): Recreation and leisure studies major; 2.50 GPA: minimum student level – senior.

493 Directed Independent Study in Recreation and Leisure Studies (1-3) Development of an independent study project under the direction of an appropriate faculty member in the Recreation and Leisure Studies Program. Independent study project must be approved by appropriate faculty member. Repeatability: May be repeated. Maximum 3 hours.

Religious Studies (863)

101 World Religions in History (3) Introduction to religion in culture and society, including examination of religious traditions from China, India, and the Mediterranean world. Writing-emphasis course. (CC)

102 The Comparison of World Religions (3) Introduction to religion in culture and society, focusing on cross-cultural interpretation and the treatment of common problems and themes within religious traditions. Writing-emphasis course. (CC)

232 Varieties of Religious Community (3) How different forms of religious communities (cults, tribes, sects, monastic orders, denominations, familial, etc.) have sought to reject, reinforce, transform, ignore, or dominate their culture and society. (Same as Sociology 232.)

244 Professional Responsibility (3) (See Philosophy 244.) (AH) (OC)

300 Ways of Understanding Religion (3) Sources and methods used in the study of religion and religions. Analysis of approaches to the study of religion. Writing-emphasis course.

301 Religious Myth, Symbol, and Ritual (3) Distinctive modes of religious expression and analysis of theoretical approaches appropriate to their particular social and cultural functions in religions.

302 Anthropology of Religion (3) Religions of selected non-literate peoples. Role of religion in their social and cultural systems. (Same as Anthropology 302.)

305 Modern Religious Thought (3) Major themes, issues, and thinkers of 19th- and/or 20th-century religion. Repeatability: May be repeated. Maximum 6 hours.

309 Elementary Classical Hebrew (3) Basic elements of Hebrew phonology, script, morphology, and syntax. Introduction to basic elements of text, form, and literary criticism.

310 Elementary Classical Hebrew (3) Basic elements of Hebrew phonology, script, morphology, and syntax. Introduction to basic elements of text, form, and literary criticism.

311 Ancient Hebraic Religious Traditions (3) Development of ancient Israelite and early Jewish traditions with emphasis on those concerning the Exodus, Davidic kingship, and Zion in historical, prophetic, and apocalyptic material. Writing-emphasis course. (Same as Judaic Studies 311.)

312 Religious Aspects of Biblical and Classical Literature (3) Ways in which contemporary modes of literary study enhance appreciation of biblical and classical material. Ways in which the western literary tradition has appropriated and recast the biblical and classical heritage. Writing-emphasis course. (Same as Judaic Studies 312.)
313 Religious Aspects of Modern Literature (3) Issues raised for religious inquiry in contemporary literature. Relation of religious and moral considerations to problems of literary analysis. Relation between religious language and forms of human expression (symbol, metaphor, myth, image) identified in study of literature. Writing-emphasis course.

315 Reformation Europe, 1500-1650 (3) (See History 315.)

320 Women and Religion (3) Concepts of gender in religious traditions. Religious, social, and psychological dimensions of gender-related symbols (e.g., the Goddess, God the Father) that shape women’s and men’s experiences. Contemporary feminist discussions of ways in which religions have liberated and oppressed women. (Same as Judaic Studies 320; Women’s Studies 320.)


322 Christian Thought in Late Antiquity (3) Major themes, events, texts, and figures of Christianity in the Roman and Byzantine Empires (after the New Testament period). Includes the study of early Christian controversies over topics such as gender and sexuality, Christianity and politics, interpreting scripture, and defining Christian orthodoxy. Writing-emphasis course. (Same as History 322.)

326 Images of Jesus (3) Major portrayals of Jesus Christ from the 1st century to the 20th century within the context of the cultural milieu which gave birth to each. Extensive use of slides, video material, recordings, and literature.

329 Intermediate Classical Hebrew (3) Readings in narrative material from the Hebrew Bible. (DE) Prerequisite(s): 329.

332 Classical Islam (3) Content limited to events prior to 1773 CE, focusing on the Qur’an, the prophetic tradition, Islamic law, Sunnism, Shi’ism, and Sufism. Writing-emphasis course. (Same as Asian Studies 332.)

333 Islam in the Modern World (3) Beginning with the Wahhabi revolution (c. 1773 CE), this course examines movements of revival and reform in modern Islam, as well as worldwide missionary activity and the growth of the Islamic community in the U.S. Writing-emphasis course. (Same as Asian Studies 333.) (DE) Prerequisite(s): 332.

342 Religious Ethics (3) Selected ethical theories and moral teachings of religious communities and thinkers, their action-guides for individuals and institutions, and their application to personal and social problems.

351 Introduction to Religion in the United States (3) A representative profile of religion in the United States organized around selected focal themes or problems. Writing-emphasis course.

352 African-American Religion in the United States (3) Historical and critical examination of formation and development of African-American religious thought and institutions in America. Writing-emphasis course. (Same as African Studies 352.)

353 Topics in African-American Religion (3) Selected figures, themes, movements, or problems in the African-American religious tradition. Variable content. (Same as Africana Studies 353.) Repeatability: May be repeated. Maximum 6 hours.

355 Religion and Culture in the United States (3) Selected figures, movements, and problems in American religious life, thought, and culture from pre-colonial period to present. Writing-emphasis course. (Same as American Studies 355.) Repeatability: May be repeated. Maximum 6 hours.

370 Philosophy of Religion (3) (See Philosophy 370.)

373 African Religions (3) Religions of the indigenous peoples of Africa, including how myth, rites, symbols, and certain cultural and political movements in Africa have been and are being informed by religious sensibilities. Writing-emphasis course. (Same as Africana Studies 373; Anthropology 373.)

374 Philosophy and Religion in India (3) Survey of the development of the major non-Buddhist themes of philosophical and religious thought in India. Writing-emphasis course. (Same as Philosophy 374.)

376 Buddhist Philosophy and Religion (3) Survey of the origins of Buddhism in India and further development of Buddhist philosophy and religion in India, China, Korea, Japan, the countries of Southeast Asia, and beyond. Writing-emphasis course. (Same as Philosophy 376.)

378 Theravada Buddhism (3) Historical study of the Theravada Buddhist tradition in South and Southeast Asia. Focus will be on the cult of the Buddha in Theravada Buddhism, the Theravada interpretation of key Buddhist concepts as found in the Pali canon, and the reciprocal relationship between renouncers and lay persons in the tradition.

379 Religion and Philosophy in China (3) Traditional thought and religion of China in its cultural setting as basis for understanding modern China. Writing-emphasis course. (Same as Philosophy 379.)

380 East Asian Buddhism in Asia and North America (3) An overview of the distinctive forms of Buddhism that arose in China, Japan, and Korea, as well as an introduction to their offshoots in North America.

381 Introduction to Judaism (3) History, traditions, philosophy, and religion of the Jewish people grounded in the ancient period, but includes diaspora, emancipation and haskalah. Writing-emphasis course. (Same as Judaic Studies 381.)

382 Religion and Culture in Southeast Asia (3) Historical study of the major religions in Southeast Asia, including indigenous traditions, Hinduism, Buddhism, Islam and Christianity. Focus will be on the historical interplay between religion, culture, and society and the expression of these traditions.

383 Religion in Japan (3) Traditional religious heritage and contemporary expressions of religion in Japan with attention to relationships of persons to nature, self-mastery and spontaneity, individual and community, and secular to sacred. Writing-emphasis course.

384 Zen Buddhism (3) Historical, philosophical, and meditational aspects of Zen. Special emphasis on motifs of emptiness, no-mind, and enlightenment and on practices of meditation and the use of the koan. Recommended Background: 376 or 379 or 383.

385 Contemporary Jewish Thinkers (3) Renewal trends in 19th and 20th-century Judaism. Writing-emphasis course. (Same as Judaic Studies 385.) Repeatability: May be repeated. Maximum 6 hours.

386 Voices of the Holocaust (3) Historical underpinnings of Nazi genocides such as that of the Jewish people, gypsies, and homosexuals. The economic, religious, social, and philosophical trends supporting massive genocide. (Same as Judaic Studies 386.)

389 Literature of the English Bible (3) (See English 389.)

401 Texts and the Study of Texts (3) Systematic introduction to the nature and function of (primarily, but not exclusively, oral and written) texts and textual traditions in the study of religion. How texts are made and used historically, how they are recovered and created by scholars, and how they are interpreted by religious communities and scholars.

405 Modern Jewish Thought (3) History, culture, and geography of the now Israeli portion of the Levant from 1850 to present. The founding of the modern state of Israel in 1948 and the political complexities of the Middle East. Israeli culture and literature. Writing-emphasis course. (Same as Judaic Studies 405.)

411 Modern Religious Philosophies (3) Religious implications of major western thinkers and movements from Nicolas of Cusa to the 19th-century German idealists. (Same as Philosophy 411.)

415 Psychology of Religion (3) (See Psychology 415.)

425 Seminar in Western Religions (3) Selected figures, themes, movements, and problems. Registration Permission: Consent of instructor.

430 Seminar in American Religion (3) Selected figures, themes, movements, and problems. Registration Permission: Consent of instructor.

440 Seminar in Comparative Religion (3) Selected figures, themes, movements, and problems. Registration Permission: Consent of instructor.

474 Modern and Contemporary South Asian Religion (3) Religion in India during the Islamic and European colonial periods and in independent India. May include such topics as the development of vernacular forms of Hinduism; Hindu interactions with other religions; the Indian Freedom Movement and Gandhi; women and tradition; religion, secularism, and politics in independent India; and religion and caste in the new India. Writing-emphasis course. (RE) Corequisite(s): 374.

490 Readings and Research in Religious Studies (3) Repeatability: May be repeated. Maximum 6 hours. Registration Permission: Consent of instructor.
491 Foreign Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

499 Proseminar in Religious Studies (3) For advanced students in religious studies, required for majors. Selected topics, e.g., nature and function of myth in religion, problem of evil, transcendence, theories of religion, hermeneutics, integrating various disciplines involved in study of religion. Repeatability: May be repeated. Maximum 6 hours. Registration Permission: Consent of instructor.

Retail and Consumer Sciences (865)

210 Introduction to Retail Management (3) Development and overview of retailing, related businesses and industries, and the activities involved in the delivery of goods and services to the consumer.

310 Retail Buying and Planning (4) Analysis of the merchandise buying function within different types of retail organizations and structures. Application of principles associated with retail buying, planning, and allocation. Computer simulations with emphasis on Excel. Contact Hour Distribution: 3 hours and 1 hour discussion/lab. (RE) Prerequisite(s): 210 and Mathematics 125. (DE) Prerequisite(s): Accounting 200.

311 Human Resources Management in Hospitality and Retailing (3) (See Hotel, Restaurant, and Tourism 311.)

320 Apparel Product Development (3) Concepts of apparel product development from the retailer’s perspective. Understanding of basic textile and design principles, specification writing, line building, and brand management to develop apparel products for target markets.

341 Consumers in the Marketplace (3) Understanding of behavior of individual and family, demographics, family life cycle, family dynamics and roles, cultural and ethnic influences, and individual and family decision making.

346 Retail Operations Management (3) Analysis of retail operations in terms of organizational structure, logistics and distribution, growth opportunities and productivity. (RE) Prerequisite(s): 210 and Accounting 200.

360 Issues and Trends in Consumer Service (3) Building competencies in providing outstanding customer service in retail organizations. This course will create a unified approach to customer service, recognizing the importance of store environment planning, organizational policies, and internal marketing that will lead to increased business by attracting and retaining desired customers. (Same as Hotel, Restaurant, and Tourism 360.) (RE) Prerequisite(s): 210 or Hotel, Restaurant, and Tourism 210.

376 Strategies for Growth (3) Issues concerning achievement of business growth with focus upon the consumer, operational, and financial dimensions of the service industry. (RE) Prerequisite(s): 310 and Marketing 300. (DE) Prerequisite(s): 341.

390 Professional Development (3) (See Hotel, Restaurant, and Tourism 390.) (WC)

410 Strategic Retail Planning (3) Retail management from a strategic planning perspective. Development and implementation of retail strategy from financial, operational, and customer orientation. (RE) Prerequisite(s): 376 and 422.


412 e-Retailing (3) Issues concerning the use of the Internet and related technologies to improve and/or transform retail businesses. Emphasizes analysis of consumers and product/service types in online retailing and the effective management of online catalogs. Also direct retailing methods that involve technology such as interactive TV and m-commerce (mobile). (RE) Prerequisite(s): 210 and 341. (DE) Prerequisite(s): Marketing 300.

415 Retail Promotion (3) In-store promotional activities. Development of retail promotion strategies. Evaluation of retail promotions. Supplementary focus on advertising and other methods to communicate in-store promotions. (RE) Prerequisite(s): 210 and 341. (DE) Prerequisite(s): Marketing 300.

421 International Retailing (3) The study and analysis of retailing in an international and global setting. Retail processes and practices and issues within international environments – cultural, economic, social, political, legal, and business. (RE) Prerequisite(s): 210 and 341. (DE) Prerequisite(s): Marketing 300.

422 Professional Experience in Retail and Consumer Sciences (6) Supervised educational experiences in selected retail and consumer sciences service operations. (RE) Prerequisite(s): 310 and Hotel, Restaurant, and Tourism 390. Registration Restriction(s): Retail and consumer sciences major.

480 Retail Market Planning and Execution (1-3) Exposes students to the process of planning and executing a market trip. Involves off-campus experience at a major market center. Repeatability: May be repeated. Maximum 6 hours. (RE) Prerequisite(s): 310. Registration Permission: Consent of instructor.

482 Professional Experience in Retailing II (6) Supervised professional experience in selected retail operations that build upon first professional experience. (RE) Prerequisite(s): 410 and 422.

484 International Retail Industry Study Tour (3) Group study abroad involving academic research and field investigation. Repeatability: May be repeated. Maximum 6 hours. Recommended Background: 210. Registration Permission: Consent of instructor.

493 Directed Study (1-3) Individual problems for junior and senior students with special interests in retail and consumer sciences. Repeatability: May be repeated. Maximum 6 hours. Recommended Background: Minimum student level – junior. Registration Permission: Consent of instructor.

495 Special Topics (3) Topics in retail and consumer sciences. Repeatability: May be repeated. Maximum 9 hours. Recommended Background: Minimum student level – junior. Registration Permission: Consent of instructor.

497 Honors: Retail and Consumer Sciences (1-3) Individual problems for junior and senior students showing special ability and interest in retail and consumer sciences. Repeatability: May be repeated. Maximum 6 hours. Recommended Background: Minimum student level – junior. Registration Permission: Consent of instructor.

498 Honors: Retail and Consumer Sciences (1-3) Individual problems for junior and senior students showing special ability and interest in retail and consumer sciences. Repeatability: May be repeated. Maximum 6 hours. Recommended Background: Minimum student level – junior. Registration Permission: Consent of instructor.

Rural Sociology (880)

380 Rural Sociology (3) Topics include the analysis of U.S. land tenure systems, agricultural regions, rural minorities, Amish, farmer organizations, rural institutions, community decision-making, local government, rural policy issues, rural industrialization, food policy, and cross-cultural analysis.

Russian (886)

101 Elementary Russian (4)
102 Elementary Russian (4) (RE) Prerequisite(s): 101.
201 Intermediate Russian (4) (CC) (RE) Prerequisite(s): 202.
202 Intermediate Russian (4) (CC) (RE) Prerequisite(s): 201.

221 Rebels, Dreamers, and Fools: The Outcast in 19th Century Russian Literature (3) Texts in English translation. Writing-emphasis course. (AH) (WC) Credit Restriction: No foreign language credit.

222 Heaven or Hell: Utopias and Dystopias in 20th-Century Russian Literature (3) Texts in English translation. Writing-emphasis course. (AH) Credit Restriction: No foreign language credit.

311 Russian Composition and Conversation (3) Practice in writing and speaking, Grammar review and vocabulary building. (RE) Prerequisite(s): 202.
312 Russian Composition and Conversation (3) Practice in writing and speaking. Grammar review and vocabulary building. (RE) Prerequisite(s): 311.

325 Russian Film (3) A study of the Russian cinema from the earliest days to the present. Writing-emphasis course. (Same as Cinema Studies 325.)

371 Martyrs, Mobs, and Madmen in Russian Culture: 988-1861 (3) Explores various aspects of Russian music, art, and literature, emphasizing violent cultural clashes that produced extreme artistic reactions. Texts in English translation. Writing-emphasis course.

372 Modern Russian Culture through Readings and Dramatic Production (3) A survey of Russian culture from the era of great reforms of the 1860s through modern times, supplemented by participation in a dramatic production. Texts in English translation. Some texts in Russian for Russian majors. Writing-emphasis course.

401 Advanced Grammar, Conversation, and Composition (3) (RE) Prerequisite(s): 312.

402 Advanced Grammar, Conversation, and Composition (3) (RE) Prerequisite(s): 401.

424 Nabokov's Novels and Stories (3) An intensive course covering several novels and stories, the memoir, and some scientific writings of the prolific Russian-American author. Particular attention given to the author's philosophical views and the contact between his science and his art. In English with readings in Russian for majors. Writing-emphasis course.

425 Introduction to Descriptive Linguistics (3) (See French 425.)

426 Methods of Historical Linguistics (3) (See German 426.)

430 Selected Topics in Russian Literature (3) Writing-emphasis course. Repeatability: May be repeated if topic differs. Maximum 9 hours.

451 Senior Seminar (3) Intensive study of language, literary style, and literary criticism based on selected major novels. (RE) Prerequisite(s): 312. Comment(s): For students majoring in Russian; minors admitted at the discretion of the instructor.

452 Senior Seminar (3) Intensive study of language, literary style, and literary criticism based on selected major novels. (RE) Prerequisite(s): 312. Comment(s): For students majoring in Russian; minors admitted at the discretion of the instructor.

490 Internship (1-15) Career-related experiences in the United States or abroad. Grading Restriction: Satisfactory/No Credit grading only. Repeatability: May be repeated. Maximum 15 hours. Registration Restriction(s): Russian major/language and world business concentration.

491 Foreign Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

Safety (890)

406 Death, Dying and Bereavement (3) (See Health 406.)


452 Safety Principles and Practices (3) An introduction to the general principles, practices, and procedures in occupational and community safety. A survey of historical and present safety issues, problems, and practices addressing safety of individuals and groups in work-site, school, community, transportation, and industrial settings. Registration Restriction(s): Minimum student level – junior.

460 Fire Risk Management (3) Provides the knowledge and skills necessary to develop, implement, and manage a comprehensive fire safety program. Incorporates basic fire risk management concepts, interpretation of codes, and an exposure to basic fire analysis techniques. Registration Restriction(s): Minimum student level – senior.

Science Education (899)

496 Teaching Science Grades 7-12 (3) Methods, materials, recent trends in science and environmental education programs for secondary schools. Registration Restriction(s): Qualification – admission to teacher education.

Social Science Education (900)


Social Work (905)

200 Introduction to Social Work (3) Emergence of the social work profession. Professional mission, knowledge, skills, and values. Practice settings, client groups, helping services, career patterns, and practice methods. Designed to assist students to consider their ability for careers in social work.


310 Social Work Research (3) Scientific method and research strategies to evaluate one’s practice and/or social service delivery. Knowledge of statistical techniques required. (RE) Prerequisite(s): Mathematics 115 or Psychology 385. (RE) Corequisite(s): 315 and 316. (DE) Corequisite(s): 390.

312 Social Work Practice I (3) Knowledge, values, and skills for entry-level generalist practice in a variety of settings. The social work problem-solving process, different size client systems, ethnic-sensitive assumptions, and the worker's regard for person-environment configuration. Concurrent skills laboratory. (RE) Corequisite(s): 314. Comment(s): Progression required.

313 Social Work Practice II (3) In-depth study of generalist practice with individuals and families. Practice roles, value dilemmas, and working with people of diverse backgrounds. Concurrent skills laboratory. (RE) Prerequisite(s): 312. (RE) Corequisite(s): 310 and 316. (DE) Corequisite(s): 390. Comment(s): Progression required.

314 Human Behavior and the Social Environment (3) Interrelatedness of biological, social, cultural, environmental, and psychological factors in human behavior. Person-in-environment over the life span with special attention to diversity, impact of racism, sexism, and other sociocultural factors. Integration of knowledge into a social work practice perspective. (WC) (RE) Prerequisite(s): English 101 and English 102. (RE) Corequisite(s): 312. Comment(s): Progression required.

316 Culturally Responsive Social Work Practice (3) Social work practice with diverse populations. Variables including race, ethnicity, gender, class, and sexual orientations as they relate to generalist social work practice. Students develop self-awareness of their own culture and the culture of others and acquire knowledge and understanding of the impact of oppression on diverse groups. (RE) Corequisite(s): 310 and 313. (DE) Corequisite(s): 390. Comment(s): Progression required.

380 Field Practice in Social Work I (3) Eight-hour-per-week, supervised field experience with practice situations for developing professional skills, values, and attitudes. Concurrent seminar focuses on integration of knowledge with practice experiences. (RE) Corequisite(s): 310 and 313. (DE) Corequisite(s): 316. Comment(s): Progression required.

412 Social Work Practice III (3) Generalist practice with emphasis on groups and communities, including treatment theories, techniques, and issues. (RE) Corequisite(s): 416 and 480. Comment(s): Progression required.

460 Integrative Seminar (3) Social work content for entry-level professional practice and current issues influencing the profession. Includes development of a portfolio reflecting BSW competencies and research development and presentation.

(REA) Corequisite(s): 481.
Comment(s): Progression required.

461 Child Welfare I: History, Programs, and Policies (3) Study of the child welfare system examining history, policies, and programs, both state and federal, pertinent to child maltreatment and juvenile justice.

Comment(s): Progression or consent of instructor required.

462 Child Welfare II: Skills and Practice Methods (3) Emphasis on the special challenges, needed skills, and different strategies and interventions in the provision of culturally responsive child welfare services.

Comment(s): Progression or consent of instructor required.

460 Field Practice in Social Work II (6) Sixteen-hour-per-week supervised agency field practicum for integration of theory and practice and critical examination of oneself as a professional helping person. Concurrent field seminar on integration of knowledge with practice experiences.

(REA) Prerequisite(s): 480.
Comment(s): Progression required.

491 Foreign Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.
Registration Permission: Consent of instructor.

492 Off-Campus Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.
Registration Permission: Consent of instructor.

493 Independent Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.
Registration Permission: Consent of instructor.

Sociology (915)

110 Social Justice and Social Change (3) Problems of deviance, crime, and victimization, inequalities in exposure to environmental risks, and inequalities in power and participatory democracy within the context of social change. Assessment of control strategies and redress of injustices. (SS)

117 Honors: Social Justice and Social Change (3) (SS)
Comment(s): 3.00 GPA required for first-year students; 28 ACT composite or 1200 SAT required for incoming students.

120 General Sociology (3) Major concepts and theoretical approaches of sociology with emphasis on culture, socialization, social organization, and social stratification. (SS)

127 Honors: General Sociology (3) (SS)
Comment(s): 3.00 GPA required for first-year students; 28 ACT composite or 1200 SAT required for incoming students.

232 Varieties of Religious Community (3) (See Religious Studies 232.)

250 Introduction to Global Studies (3) Exploration of how globalization is fostering change in culture, politics, economics, philosophy, and the environment. Uses interdisciplinary perspectives to understand the relationship between historic processes and the contemporary world and the reciprocal influences of local dynamics and global change. (Same as Global Studies 250.) (CC)

260 Introduction to the Study of Environmental Issues (2) Examination of selected environmental issues and their significance in contemporary societies. Demonstrates the utility of combining sociological and humanistic perspectives of the environment with the more traditional biophysical perspectives. Writing-emphasis course.

310 American Society (3) Institutional organization of contemporary American society with particular attention to major social values. Writing-emphasis course.

311 Family (3) Theoretical frameworks and methodological approaches and their application in the sociological study of past and present family forms.

321 Sociological Theory (3) Survey of contemporary issues and problems in sociological theory with an emphasis on their historical development and their importance for the field. Students are required to form critical appraisals of the topics addressed.

(REA) Prerequisite(s): 110 or 120.
Comment(s): C or higher in 110 or 120 required.

331 Sociological Research (3) Selected issues in philosophy of social science, research design, sampling, methods of data collection, and interpretation. Requires written research report. (Same as Legal Studies 331.)

(REA) Prerequisite(s): Statistics 201.
Comment(s): C or higher in 110 or 120 required.


343 Race and Ethnicity (3) Social sources of racial and ethnic cleavages and social, economic, and political consequences. Emphasis on race and ethnicity in the United States. Writing-emphasis course. (Same as Africana Studies 343; American Studies 343.)

344 Power and Society (3) Sociological analysis of the formation and application of nation state policies. Examination of who gets what, why, and how. Emphasis on contrasting explanations of the control of the state and the relative autonomy of the state.

345 Collective Behavior and Social Movements (3) Collective phenomena leading to social change. Response to disaster, popular crazes, and social protests and development, organization, and function of social movements. Emphasis on American cases. (Same as American Studies 345.)

350 Criminology (3) Systematic inquiry into how crime is defined, measured, and explained. Implications for criminal justice policy.

351 Juvenile Delinquency and Social Policy (3) This course examines the historical and contemporary nature and social contexts of juvenile delinquency, as well as theoretical explanations of and social reactions to delinquency in American society.

352 Deviance and Social Control (3) Deviants, their lifestyles, social organization, and social control.

360 Environment and Resources (3) Relationship between scarcity of natural resources and changes in societal beliefs and social structure. Topics include social and physical limits to growth and collective action problems. Writing-emphasis course.

370 Social Psychology (3) Social psychological analysis of social behavior emphasizing its acquisition, its enactment, and its dynamic nature.

375 Gender in Society (3) Exploration of gender in society utilizing various sociological perspectives with special focus on the relationships between social structures, social roles, and gender identities. (Same as Women’s Studies 375.)

400 Special Topics (3) Variable topics. Scope of subject matter determined by students and instructor with consent of department.

442 Comparative Poverty and Development (3) A critical examination of patterns of poverty and inequality in developing areas of the world, along with a review of major sociological theories which attempt to explain differences in patterns of development. Writing-emphasis course. (Same as Africana Studies 442.)

446 The Modern World System (3) Critical examination of the capitalist world-system as a social system, its coherence, boundaries, regions, member groups, cleavages, and patterns of conflict. Analysis of who gets what, why, and how in the global political economy. Writing-emphasis course.

451 Criminal Justice (3) A critical assessment of the criminal justice apparatus and its components. Brief examination of the police, with most of the emphasis on the criminal courts and institutions and programs such as the prison, probation, and parole. Analysis of their operation and impacts. (Same as Legal Studies 451.)

Recommended Background: Completion of 350.

452 Minorities, Crime, and Criminal Justice (3) Examines racial/ethnic disparities in criminal offending and victimization, as well as differences in experiences with law enforcement, judicial, and correctional agencies. Emphasis on social justice.

453 Gender and Crime (3) Probes the gendered nature of offending, victimization, and criminal justice. Examines the different experiences of males and females, and theories that attempt to explain these differences.

455 Society and Law (3) How laws and legal processes are affected by social change, the social impact of legal sanctions, and relations between law and social justice. Writing-emphasis course. (Same as Legal Studies 455.)

459 White-Collar Crime (3) The distinctive nature and dynamics of white-collar crime, victims and costs of white-collar crime, organizations as white-collar offenders, causal theories, and the dynamics of responses to white-collar crime by private and public parties.

464 Urban Ecology (3) The relation of humans to their urban environment with emphasis on conservation and the use of appropriate technology.

465 Social Values and the Environment (3) Human dimensions of ecosystem management and public policy. An applied focus on how social values are activated within specific biophysical and social settings. Writing-emphasis course.

491 Foreign Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

495 Social Justice and Community Service (3) Examines social stratification, inequalities, and social justice. Service learning component offers supervised internships in the community with service agencies and non-profit organizations.

Comment(s): For sociology majors with senior standing.

Spanish (924)

111 Elementary Spanish (3) Language laboratory required.
Credit Restriction: Not available to students eligible for 150.

112 Elementary Spanish (3) Language laboratory required.
Credit Restriction: Not available to students eligible for 160.

(RE) Prerequisite(s): 111.

150 Intermediate Spanish Transition (3) This course is designed to prepare students for enrollment in 211.
Credit Restriction: For elective credit only. This class will not count toward the College of Arts and Sciences intermediate-level foreign language requirement. Since 150 is a review of elementary Spanish, students who receive credit in this course may not also receive credit for any other 100-level Spanish course and, therefore, also forfeit the 6 hours of elementary language credit awarded through placement examination.

Recommended Background: Two years of high school Spanish or placement score below level required for 211.

211 Intermediate Spanish (3) (CC)
(DE) Prerequisite(s): 112 or 150 or departmental placement exam.
Comment(s): Students who place in 200-level courses from high school will receive 6 hours of elementary Spanish credit.

212 Intermediate Spanish (3) (CC)
(RE) Prerequisite(s): 211 or 217.
Comment(s): Students who place in 200-level courses from high school will receive 6 hours of elementary Spanish credit.

217 Honors: Intermediate Spanish (3) Honors course for students of superior ability in Spanish. Students follow an enriched program with continuing emphasis upon speaking ability and with an introduction to reading literary selections.

(DE) Prerequisite(s): 112 or 150 or departmental placement exam.
Comment(s): Incoming freshmen are admitted on the basis of a diagnostic test, high school average and performance on the ACT.

218 Honors: Intermediate Spanish (3) Honors course for students of superior ability in Spanish. Students follow an enriched program with continuing emphasis upon speaking ability and with an introduction to reading literary selections.

(RE) Prerequisite(s): 217.
Comment(s): Incoming freshmen are admitted on the basis of a diagnostic test, high school average and performance on the ACT. Students who earn an A or B in 218 receive credit for 300.

300 Transition: Composition and Grammar through Reading (3)
Provides preparation in writing skills and exercise in key elements of grammar through the development of reading comprehension, vocabulary acquisition, and compositions on assigned topics.

(DE) Prerequisite(s): 212 or 218 or departmental placement exam.
Comment(s): Available to non-native or non-bilingual students of Spanish only.

305 Conversation and Aural Comprehension (3) Develops speaking and listening comprehension skills through a variety of in-class and extra-class activities.

Credit Restriction: Not available for credit for students whose level of proficiency in Spanish is superior as defined by the ACTFL Proficiency Guidelines.

(RE) Prerequisite(s): 300 or 219.

322 Upper-level Grammar and Composition (3) Study of the more challenging grammatical issues in Spanish with practical application in composition assignments. Any review of basics covered in previous courses is to introduce finer points. Writing-emphasis course.

Credit Restriction: Not available for credit for students whose level of proficiency in Spanish is superior as defined by the ACTFL Proficiency Guidelines.

(RE) Prerequisite(s): 218 or 300.

330 Textual Analysis (3) Introduction to the art of reading and interpreting literary texts and the writing of critical essays, with attention to language structures, literary terminology, theory and concepts such as romance, tragedy, comedy, irony, narrative voice, symbol, metaphor, etc. with application to works such as short stories, one-act plays, essays, and letters. Writing-emphasis course.

(RE) Prerequisite(s): 323.

331 Introduction to Hispanic Culture (3) Introduction to the fundamental historical, political, and demographic developments that led to the creation, geographic distribution, and distinctive character of Hispanic cultures with attention to those qualities that distinguish Hispanic culture from other cultures, as well as to ethnic and linguistic components of the Hispanic world in the present day. Writing-emphasis course. (Same as Latin American Studies 331)

(RE) Prerequisite(s): 323.

332 Survey of Spanish Literature: 1700-Present (3) Main writers, trends, stylistic periods, and artistic movements in Spain since 1700 set against a broad background of cultural, socio-political and historical developments. Emphasis on neo-classicism, the romantics, the realists of the 19th century, the Generation of ’98, the avant-garde of the 1920s and 1930s, social realism, women writers, and contemporary developments. Writing-emphasis course.

(RE) Prerequisite(s): 323.

333 Survey of Spanish-American Literature: 1700-Present (3) Main writers, trends, stylistic periods and artistic movements in Spanish America since 1700 set against a broad background of cultural, socio-political and historical developments. Emphasis on neo-classicism, the romantics, modernismo, the avant-garde of the 1920s and 1930s, social realism, magical realism, the Latin American boom, women writers, and contemporary developments. Writing-emphasis course. (Same as Latin American Studies 333)

(RE) Prerequisite(s): 323.

334 Survey of Hispanic Literatures: Beginnings-1700 (3) Main writers, trends, stylistic periods and artistic movements in Spain and Spanish America up to 1700 set against a broad background of cultural, socio-political and historical developments. Writing-emphasis course. (Same as Latin American Studies 334)

(RE) Prerequisite(s): 323.

(RE) Corequisite(s): 330.


(RE) Prerequisite(s): 323.


(RE) Prerequisite(s): 323.

347 Latin American Studies Seminar (3) Selected topics in Latin American studies. Writing-emphasis course. (Same as Latin American Studies 402)

Repeatability: May be repeated. Maximum 6 hours.

348 Cultural Plurality and Institutional Changes in Latin America (3)
Value systems, behavioral patterns, political parties, role of the military, the church, educational institutions, dictatorship and nationalism. Writing-emphasis course. (Same as Latin American Studies 401)

Credit Restriction: May not be applied toward the Spanish major.

Recommended Background: 6 hours of coursework in Latin American studies.

402 Latin American Studies Seminar (3) Selected topics in Latin American studies. Writing-emphasis course. (Same as Latin American Studies 402)

Repeatability: May be repeated. Maximum 6 hours.

Credit Restriction: May not be applied toward the Spanish major.

Recommended Background: 6 hours of 300- or 400-level coursework in Latin American studies.

421 Phonetics (3)
(RE) Prerequisite(s): 323.
422 Advanced Grammar and Translation (3) Structure of the grammatical system of Spanish. In-depth analysis of selected syntactic phenomena with practical illustration/application and exercise in Spanish-English and English-Spanish translation. Emphasis on finer points of grammatical structures. Writing-emphasis course.

423 Advanced Composition and Conversation (3) Develops writing and speaking skills to the advanced level, covering a wide range of topics and situations and including a variety of in-class and extra-class activities. Writing-emphasis course.

425 Introduction to Descriptive Linguistics (3) (See French 425.)

426 Methods of Historical Linguistics (3) (See French 426.)

429 Romance Linguistics (3) (See French 429.)

430 Topics in Hispanic Linguistics (3) Introduction to the study of the Spanish language through different areas of linguistics such as phonology, morphology, syntax, semantics, sociolinguistics, dialectology, and second language acquisition. Writing-emphasis course. (Same as Linguistics 431.)

433 Images of Woman in Hispanic Literature (3) Examines major Hispanic texts (and/or women authors) in the light of the relation of female individuality to a particular social context, the role of women in society, patriarchal tradition, woman as cultural and as aesthetic value (the feminine symbolic), and feminist theoretical issues. Writing-emphasis course.

434 Hispanic Culture through Film (3) Analysis of selected films on subjects concerning life, culture, and artistic traditions in the Hispanic world; exploration of ideological, philosophical, social, and political implications of films and a comparison of them with treatments of related subjects in other types of artistic production. Taught in Spanish. Writing-emphasis course. (Same as Cinema Studies 434.)

461 Special Topics (3) Focus on some aspect of Hispanic literature, culture, linguistics, or foreign language pedagogy. Topics vary.

465 Latin American Film and Culture (3) Explores Latin American and Latino/a films and videos from 1900s to present as works of art and in light of political, cultural, and social contexts. Taught in English. Writing-emphasis course. (Same as Cinema Studies 465; Latin American Studies 465.)

480 Social Forces in Hispanic Literary Expression (3) Analysis of major Hispanic texts that address factors and events that influenced and/or continue to influence the social and cultural evolution of the Hispanic world, including literature itself. Writing-emphasis course.

482 Trends in Hispanic Thought (3) Intellectual/philosophical currents represented in literary works, selected thinkers, or movements from historical periods of Spain and Latin American countries. Writing-emphasis course.

484 Race, Ethnicity, and Nation in Hispanic Literature (3) Close reading and analysis of literary texts that deal with issues of race and ethnicity in the Hispanic world, especially with regard to identity and concepts of nationhood. Among possible course topics – mestizaje; conceptual distinctions between race and ethnicity in Latin America; indigenismo; afrocentrism; issues of monarchy and empire; and relationship between Jews, Christians, and Moors in Spain. Writing-emphasis course.

486 Literary and Artistic Movements in the Hispanic World (3) Examination of relationships (thematic, cultural, socio-political, aesthetic, philosophical, etc.) between specific trends in literature and other artistic media in light of historical contexts in which those relationships emerged. Writing-emphasis course.

489 Topics in Hispanic Civilization (3) Analysis of major trends, issues and movements in the civilizations of Spain and Spanish America. Political, literary, and cultural perspectives dealing with topics from the Middle Ages to the present day may be explored. Writing-emphasis course.

490 Internship (1-15) Career-related experiences in the United States or abroad.

491 Foreign Study (1-15) Grading Restriction: Satisfactory/No Credit grading only.

492 Trends in Hispanic Thought (3) Intellectual/philosophical currents represented in literary works, selected thinkers, or movements from historical periods of Spain and Latin American countries. Writing-emphasis course.

493 Independent Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

494 Spanish Community Service Practicum (1) Supervised community service with local agencies that assist Hispanic community or supervised activities with local cultural organizations that promote awareness of Hispanic culture among the general public. Each credit hour requires 40 semester hours of off-campus supervised work and a weekly one-hour tutorial with a faculty member.

495 Community Service Practicum (1) Grading Restriction: Satisfactory/No Credit grading only.

496 Professional Studies: Special Education and Diverse Learners (3) Characteristics and needs of students with disabilities and diverse learners with emphasis on educational implications. Techniques, strategies and resources for teaching and assessing students with diverse learning, behavioral, medical and/or sociocultural characteristics, and the requirements of special education and other relevant laws.

497 Disenched Texts in Hispanic Literature (3) Texts representing trends and periods of renewal in Spain and Latin American countries. Selected topics on traditions in crisis. Content will vary. Writing-emphasis course. (Same as Latin American Studies 479.)

498 Social Forces in Hispanic Literary Expression (3) Analysis of major Hispanic texts that address factors and events that influenced and/or continue to influence the social and cultural evolution of the Hispanic world, including literature itself. Writing-emphasis course.

499 Independent Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

500 Professional Studies: Special Education and Diverse Learners (3) Characteristics and needs of students with disabilities and diverse learners with emphasis on educational implications. Techniques, strategies and resources for teaching and assessing students with diverse learning, behavioral, medical and/or sociocultural characteristics, and the requirements of special education and other relevant laws.

501 Early Childhood Special Education Foundations (3) Introduction to the field of early childhood special education, including the nature of disabling conditions, theoretical perspectives in the field, legislation, and policies and procedures used in the field.

502 Professional Studies: Special Education and Diverse Learners (3) Characteristics and needs of students with disabilities and diverse learners with emphasis on educational implications. Techniques, strategies and resources for teaching and assessing students with diverse learning, behavioral, medical and/or sociocultural characteristics, and the requirements of special education and other relevant laws.

503 Early Childhood Special Education Foundations (3) Introduction to the field of early childhood special education, including the nature of disabling conditions, theoretical perspectives in the field, legislation, and policies and procedures used in the field.
419 Psychology and Education of Students with Mild Disabilities (6)
Nature and characteristics of persons with mild handicaps and the educational strategies appropriate for these persons.
(RE) Prerequisite(s): 402.
(RE) Corequisite(s): 420.
Registration Restriction(s): Qualification – admission to teacher education.

420 Field Experience in Special Education Programs (3)
Practicum in teaching special education programs. Planning, developing, implementing, and evaluating instruction.
Grading Restriction: Satisfactory/No Credit grading only.
(RE) Prerequisite(s): 402.
(RE) Corequisite(s): 419.
Registration Restriction(s): Qualification – admission to teacher education.

431 Field Experience in Comprehensive Programs (3)
On-site teaching experience with moderately and severely handicapped children and youth.
Grading Restriction: Satisfactory/No Credit grading only.
(RE) Prerequisite(s): 402.
(RE) Corequisite(s): 432.
Registration Restriction(s): Qualification – admission to teacher education.

432 Psychology and Education of Students with Moderate/Severe Disabilities (6)
Nature and characteristics of persons with moderate/severe disabilities and the educational strategies appropriate for those persons.
(RE) Prerequisite(s): 402.
(RE) Corequisite(s): 431.
Registration Restriction(s): Qualification – admission to teacher education.

456 Speech and Language Basis of Learning Disabilities in the Classroom (3)
Normal communication development. Understanding of speech and language impairments in school-age students. Integration of oral/written communication skills into existing curriculum, especially for high incidence special education students.

470 Psychology of the Exceptional Child (3)
General characteristics and educational needs of exceptional children. Implications of developmental variations for functioning as adults.
Comment(s): Non-education majors only.

471 Early Childhood Special Education (6)
Assessment, curriculum planning and development, and teaching approaches used in early childhood special education.
Registration Restriction(s): Qualification – admission to teacher education.

472 Field Experience in Early Childhood Special Education (2-5)
Placement in educational settings serving young children with special needs. Provides experience in assessment, curriculum planning and teaching.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 5 hours.
Registration Restriction(s): Qualification – admission to teacher education.

Sport Management (957)

100 Orientation to Sport Management (1)
Overview of the sports industry and sport management major. To be taken the first semester as a pre-major.

250 Foundations of Sport Management (3)
An introduction to the scope of the sport enterprise including why business is involved in sport and an overall evaluation of sport management as a profession.
(RE) Prerequisite(s): 100.

290 Practicum I (3)
Supervised part-time field experience (minimum of 120 clock hours) at an approved site for the purpose of clarifying career goals.
Grading Restriction: Satisfactory/No Credit grading only.
Registration Restriction(s): Sport management major.

330 Sport Communication (3)
An introduction to the communication industry and its relationship with sport. Students will explore cultural issues, such as gender and ethnicity, and their relationship to sport and media. The course will also provide students opportunities to develop practical communication skills and learn how media and sport interact.
Registration Restriction(s): Sport management major.

340 Sport Finance (3)
This course enables students to understand the importance of budgeting and finance in the sports industry. Students will understand how financing works in the sports industry and how corpora-
tions are valued. Students will also be introduced to the basic fundamentals of investing and accounting, and how they relate to the sport industry.
Registration Restriction: Sport management major.

350 Sport Management: Theory to Practice (3)
Overview of managerial theories and applications including responsibilities and practices associated with broad perspectives of sport enterprise.

360 Sport Governance (3)
The primary focus is the organizational structure, authority, and functions of governing bodies. Special emphasis is given to the role of the National Collegiate Athletic Association in collegiate athletics.

370 Event Management (3)
Study of the various principles involved in the organization, promotion, and management of special events. Students will combine theory and practice through experience with assigned special events.
Registration Restriction(s): Sport management major.

380 Special Topics (1-3)
Study in selected disciplinary or professional areas of sport management.
Repeatability: May be repeated. Maximum 6 hours.
Registration Restriction(s): Sport management major.

390 Practicum II (3)
Supervised part-time experience (minimum of 120 clock hours) at an approved site offering sport management opportunities.
Grading Restriction: Satisfactory/No Credit grading only.
(RE) Prerequisite(s): 290.
Registration Restriction(s): Sport management major.

440 Sport Marketing (3)
Application of fundamental marketing concepts to the sport industry. Marketing research, promotions, fund raising, advertising, and assessment of marketing programs specific to sport will be covered. The historical development of sport marketing will be included.
(RE) Prerequisite(s): Marketing 300.
Registration Restriction(s): Sport management major.

450 Legal Aspects of Sport (3)
Identification and application of various areas of law to sport industry. Includes how constitutional law, contract law, anti-trust law, and tort law impact sport management decisions. Special emphasis placed on discrimination in sport (e.g., race, gender, ethnicity, and disability).
Registration Restriction(s): Sport management major.

460 Development and Revenue Generation in Sport (3)
Designed to provide overview of theories, strategies, and techniques used in the production of revenue for sport organizations and through sporting events. Emphasis on developing balanced, multifaceted programs that target a variety of constituencies in the sport industry.

490 Sport Management Internship (6-12)
Supervised work experience (minimum of 480 clock hours) at an approved site offering sport management opportunities. Emphasis on managerial tasks and administrative procedures.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 12 hours.
(RE) Prerequisite(s): 350 and 390.
Comment(s): Enrollment for 2 semesters (6 hours each) or 1 semester (12 hours). Total of 12 hours required.
Registration Restriction(s): Sport management major; 2.50 GPA; minimum student level – senior.

493 Directed Independent Studies (1-3)
Independent study in a specialized area of sport management.
Repeatability: May be repeated. Maximum 9 hours.
Registration Restriction(s): Sport management major.

Sport Studies (959)

231 Introduction to Sport Psychology (3)
Introduction to the psychology of sport and exercise. Includes the scientific study of people and their behaviors in these contexts and the practical application of that knowledge. Topics include personality, motivation, anxiety, competition and cooperation, group and team dynamics, leadership, goal-setting, self-confidence, injury, moral and ethical considerations, and unhealthy behaviors.

290 Principles of Movement Control and Skill Learning (3)
Theories and principles explaining the performance and learning of skilled actions. Emphasis placed on the consideration of how factors related to the learner, the task, and the performance context influence instructional decisions.
Registration Restriction(s): Minimum student level – sophomore; exercise science or recreation and leisure studies majors.

335 Socio-Cultural Foundations of Sport and Leisure (3)
An overview of the sociological, historical, and philosophical foundations of sport and leisure in American society. Various forms of sport and leisure are explored within a social justice framework based on a cultural studies perspective. Students explore sport and leisure as global phenomena in social, historical, and philosophical contexts.

336 Social Issues in Sport (3)
An exploration of power relations and cultural ideologies as they impact participation opportunities in sport. Students use in-depth critical thinking analysis to identify and explore social justice issues linked to the major spheres of social life. In addition, moral decision-making and ethical dilemmas in sport, leisure, and exercise are addressed.
380 Special Topics: (1-3) Study in selected disciplinary or professional areas of sport studies. 
Repeatability: May be repeated. Maximum 9 hours.

490 Psychology of Coaching (3) Major topics and theories dealing with the social-psychological factors affecting the performance of athletes and teams, with practical suggestions for enhancing the effectiveness of teachers and coaches.

493 Directed Independent Studies (1-3) Independent study in a specialized area within sport studies. 
Repeatability: May be repeated. Maximum 9 hours.

Statistics (962)

(RE) Prerequisite(s): Mathematics 125 or Mathematics 141.

207 Honors: Introduction to Statistics (3) Intended as an alternative to 201 for higher GPA students. (QR)
Contact Hour Distribution: Two 50-minute lectures and one 110-minute lab per week.
(RE) Prerequisite(s): Mathematics 125 or Mathematics 141.
Recommended Background: 28 composite ACT or 1250 composite SAT.

(RE) Prerequisite(s): Mathematics 142 or Mathematics 148.

320 Regression and Correlation Methods (3) Simple linear regression and correlation analysis, time series analysis, multiple regression, variable selection, regression diagnostics, partial correlation, and categorial data analysis techniques. Use of statistical computing software. Applied course appropriate for a general audience.
(RE) Prerequisite(s): 201 or 251.

330 Experimental Methods (3) Strategies of experimentation: randomization, blocking, sequential experimentation, replication. Design and analysis of experiments to collect nominal data (paired comparison, triangle tests), ordinal data (rating and ranking experiments) and numerical data (single and multiple factor experiments, fractional factorials). Use of statistical computing software. Applied course for a general audience.
(RE) Prerequisite(s): 201 or 251.

(RE) Prerequisite(s): 201 or 251.

471 Statistical Methods (3) Numeric and graphic description of data, probability and probability distributions, simulation, and sampling distributions. Estimation and hypothesis testing for one and two samples, parametric and nonparametric approaches, and bootstrapping. Tests for count data, simple and multiple linear regression, diagnostics and validation, and analysis of variance. Uses SÁS and other statistical software. 
(RE) Prerequisite(s): 320.

(RE) Prerequisite(s): 320.

(RE) Prerequisite(s): 330.

474 Introduction to Data Mining (3) Understanding and application of data mining methods. Data preparation, exploratory data analysis and visualization, cluster analysis, logistic regression, decision trees, neural networks, association rules, model assessment, and other topics. Applications to real world data. Use of standard computer packages. 
(RE) Prerequisite(s): 471.

475 Time Series Analysis (3) Model building techniques for linear time series models, practical methods for univariate time series forecasting, Box-Jenkins forecasting methods, forecasting based on explanatory smoothing, autoregression and stepwise autoregression, and forecasting from regression models. Use of standard computing packages. Major writing requirement. 
(RE) Prerequisite(s): 320.

483 Special Topics in Statistics (1-3) Topics vary. 
Repeatability: May be repeated. Maximum 6 hours. 
Registration Permission: Consent of instructor.

485 Principles of Statistical Process Management (3) Control charts and other statistical techniques applied to management of business processes.
Registration Permission: Consent of department head.

492 Internship (1-6) Supervised off-campus experience in application of statistical principles and methods in business, industry, or government, culminating in a written and oral report. 
Grading Restriction: Satisfactory/No Credit grading only. 
Repeatability: May be repeated. Maximum 6 hours. 
Registration Permission: Consent of department head.

493 Independent Study (2-6) Faculty directed reading and investigation of specified topic in probability or statistics culminating in a written report. 
Repeatability: May be repeated. Maximum 6 hours. 
Registration Permission: Consent of department head.

Theatre (976)

100 Introduction to Theatre (3) Understanding theatre thought, philosophy, aesthetics, and production practices. Writing-emphasis course. (AH)

220 Acting I (3) Basic acting techniques.

221 Acting II (3) Further exploration and development of acting techniques through exercises and beginning scene work. 
(RE) Prerequisite(s): 220.

242 Fundamentals of Costume Design and Technology (2) Introduction to the elements of costume design, technology, and the design process. Hands-on and lab-intensive.

252 Fundamentals of Scene Design and Technology (2) Introduction to the elements of scene design, basic scenic technology, and the design process. Hands-on and lab-intensive.

262 Fundamentals of Lighting Design and Technology (2) Introduction to the elements of lighting design, basic technology and the design process. Hands-on and lab-intensive.

300 Play Analysis (3) Study of methods and tools used in script analysis for the purpose of play production. (WC)
(RE) Prerequisite(s): 100.

320 Advanced Acting I (3) Character study and scene study in 20th century American plays. 
(RE) Prerequisite(s): 221.

(RE) Prerequisite(s): 320.

323 Stage Movement (3) Introduction to movement/kinesthetic awareness techniques and their application to performance. 
(RE) Prerequisite(s): 221.

325 Fundamentals of Musical Theatre (3) Introduction to musical theatre, including reading music, singing techniques, basic dance, and an overview of musical theatre styles. 
(RE) Prerequisite(s): 220.

326 Advanced Voice and Speech (3) Breath-centered voice production. Exploration and control of shaping sound. IPA and text work. Geared toward acting for the stage. 
(RE) Prerequisite(s): 221.

340 Costume Design I (3) Development of research, rendering, and conceptualization skills.

345 Costume Construction (3) Techniques in the construction of costumes for the theatre. 
(RE) Prerequisite(s): 242.
352 Entertainment Technology I (3) Techniques in live entertainment production, including scenery techniques, structures, special effects, and rigging. (RE) Prerequisite(s): 252.

355 Scenic Design I (3) Designing a set by combining the elements and principles of design composition with dramaturgical research.

362 Lighting Design I (3) In-depth lighting design practice and principles. Project and lab-intensive. (RE) Prerequisite(s): 262.

410 Special Studies in History, Literature, and Criticism (3) Concentrated study in a given period or area of theatre history, literature or criticism. Content varies. Repeatability: May be repeated. Maximum 6 hours.

411 Theatre History I (3) Antiquity to 1700. Major historical periods and diverse cultural traditions in world theatre history. (RE) Prerequisite(s): 300.

412 Theatre History II (3) 1700 to contemporary theatre. Major historical periods and diverse cultural traditions in world theatre history. (RE) Prerequisite(s): 300.

420 Special Studies in Acting (3) Exercises in selected concentrated areas such as styles, techniques, approaches, e.g., Shakespeare, movement, humor. Content varies. Repeatability: May be repeated. Maximum 9 hours. (DE) Prerequisite(s): 320. Registration Permission: Consent of instructor.

422 Ensemble (4) Intensive studio work for students interested in the performance aspect of the major. Content varies. Repeatability: May be repeated. Maximum 12 hours. (RE) Prerequisite(s): 320. Comment(s): An audition or consent of the instructor is required.

425 Advanced Musical Theatre (3) Study and practice of musical theatre material including both dance and vocal work. (RE) Prerequisite(s): 325.

430 Principles of Play Directing (3) Problems in composition, picturization, rhythm, and movement. (RE) Prerequisite(s): 220.

431 Principles of Play Directing (3) Problems in composition, picturization, rhythm, and movement. (RE) Prerequisite(s): 430.

446 Costume Patterning (3) Draping patterns for period costumes. Includes corsetry and the study of historic patterns 1500-1900. Repeatability: May be repeated. Maximum 9 hours.

450 Special Studies in Entertainment Technology (1-3) Content varies. Repeatability: May be repeated. Maximum 9 hours.

452 Entertainment Technology II (3) Automation systems in live entertainment, including advanced rigging and flying for stage and film.

454 Scenery Painting (2) Introduction to materials, techniques, and principles of the craft. Emphasis on gaining skill and understanding through studio experience.

456 Scenic Design II (3) Advanced studies in set design. (RE) Prerequisite(s): 355.

462 Lighting Design II (3) Advanced lighting design theory and practice. Lab and project intensive. (RE) Prerequisite(s): 362.

464 Computer Aided Drafting for the Theatre (3) Introduction to entertainment drafting. Emphasis on 2-D graphical standards, drafting techniques, and drawing layout and presentation.

470 Playwriting (3) Advanced instruction in the writing of plays. Registration Permission: Consent of instructor.

481 Applied Theatre (1-2) Laboratory in applied theatre techniques for departmental productions. Repeatability: May be repeated. Maximum 6 hours. Registration Permission: Consent of instructor.

491 Foreign Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15) Repeatability: May be repeated. Maximum 15 hours.

Theory and Practice in Teacher Education (978)

203 Field Study in Education (1-3) Problems of persons in active service in the field. Includes methods of teaching, curriculum materials, school-community relationships, and school organizations. Repeatability: May be repeated. Maximum 6 hours.

352 Field Experiences in Teaching: Secondary I (1) Field experiences in tasks related to teaching and teacher roles. Grading Restriction: Satisfactory/No Credit grading only. Registration Restriction(s): Qualification – admission to teacher education.

353 Field Experience in Teaching: Secondary II (1) Field experiences in tasks related to teaching and to teacher roles. Grading Restriction: Satisfactory/No Credit grading only. (RE) Prerequisite(s): 352. Registration Restriction(s): Qualification – admission to teacher education.

355 Introduction to Secondary Schools (3) Aspects of teaching in grades 7-12, including curricular program and roles and responsibilities of secondary school teachers and administrators. Registration Restriction(s): Qualification – admission to teacher education.

492 Directed Independent Study (1-3) Tutorial and specialized area. Repeatability: May be repeated. Maximum 6 hours. Registration Permission: Consent of instructor.

493 Independent Study (1-3) Topics to be assigned. Repeatability: May be repeated. Maximum 12 hours.

494 Supervised Readings (1-3) Topics to be assigned. Repeatability: May be repeated. Maximum 12 hours.

495 Special Topics (1-3) Topics to be assigned. Repeatability: May be repeated. Maximum 12 hours.

University Honors (983)

See Chancellor’s Honors Program for Honors-by-Contract information.

100 Chancellor’s Honors First-Year Seminar (1) Required of and limited to freshmen students in the Chancellor’s Honors Program. Introductory seminar focused on a topic within an academic discipline. Topics vary. Grading Restriction: A, B, C, No Credit grading.

157 Arts and Humanities Honors Seminar (3) Interdisciplinary examination of selected issues in the arts and/or humanities. Topics vary. (AH) Repeatability: May be repeated if topic differs. Maximum 6 hours.

167 Social Science Honors Seminar (3) Interdisciplinary examination of selected issues in the social sciences. Topics vary. (SS) Repeatability: May be repeated if topic differs. Maximum 6 hours.

177 Cultures and Civilizations Honors Seminar (3) Interdisciplinary examination of selected global and cultural issues. Topics vary. (CC) Repeatability: May be repeated if topic differs. Maximum 6 hours.

187 Quantitative Reasoning Honors Seminar (3) Interdisciplinary applications of quantitative reasoning methods. Topics vary. (QR) Repeatability: May be repeated if topic differs. Maximum 6 hours.

257 Special Topics in the Arts and Humanities (3) Examination of a selected issue in the arts and/or humanities from a multi-disciplinary perspective. Topics vary. (AH) (WC) Repeatability: May be repeated if topic differs. Maximum 6 hours. (RE) Prerequisite(s): English 102 or English 118.

267 Special Topics in the Social Sciences (3) Examination of a selected issue in the social sciences from a multi-disciplinary perspective. Topics vary. (SS) (WC) Repeatability: May be repeated if topic differs. Maximum 6 hours. (RE) Prerequisite(s): English 102 or English 118.

277 Special Topics in Cultures and Civilizations (3) Examination of a selected global or cultural issue from a multi-disciplinary perspective. Topics vary. (CC) (WC) Repeatability: May be repeated if topic differs. Maximum 6 hours. (RE) Prerequisite(s): English 102 or English 118.

287 Special Topics in the Natural Sciences (3) Examination of a selected issue in the natural sciences from a multi-disciplinary perspective. Topics vary. Repeatability: May be repeated if topic differs. Maximum 6 hours. (RE) Prerequisite(s): English 102 or English 118.

337 Honors: Concentration in the Humanities (3) Small group studies of selected topics, issues, or problems with a concentration in the humanistic disciplines. Topics vary. Repeatability: May be repeated if topic differs. Maximum 6 hours. Comment(s): Open to all students with a GPA of 3.25 or greater.
347 Honors: Concentration in the Social Sciences (3) Small group studies of selected topics, issues, or problems with a concentration in the social sciences. Topics vary.
Repeatability: May be repeated if topic differs. Maximum 6 hours.
Comment(s): Open to all students with a GPA of 3.25 or greater.

357 Honors: Concentration in the Natural and Applied Sciences (3) Small group studies of selected topics, issues, or problems with a concentration in the natural and applied sciences. Topics vary.
Repeatability: May be repeated if topic differs. Maximum 6 hours.
Comment(s): Open to all students with a GPA of 3.25 or greater.

491 Honors: Foreign Study (1-15) Open to any undergraduate honors student. Proposals must be approved in advance. Contact the director for information.
Repeatability: May be repeated. Maximum 15 hours.

492 Honors: Off-Campus Study (1-15) Open to any undergraduate honors student. Proposals must be approved in advance. Contact the director for information.
Repeatability: May be repeated. Maximum 15 hours.

493 Honors: Independent Study (1-9) Open to any undergraduate honors student. Proposals must be approved in advance by Chancellor’s Honors Program.
Graduation Restriction: Letter grade only.
Repeatability: May be repeated. Maximum 9 hours.

499 Senior Honors Project (3) Substantial scholarly, scientific, or artistic endeavor representing the capstone of a student’s undergraduate education. Required of all Chancellor’s Honors Program students not completing an equivalent senior project for an academic department or program.

University Studies (984)

210 Special Topics in University Studies (1-9) Interdisciplinary approaches to selected topics for lower-division students. Small group discussion of varying topics that transcend the boundaries of a single discipline. Writing-intensive and team-taught.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

220 Special Topics in University Studies (1-9) Interdisciplinary approaches to selected topics for lower-division students. Small group discussion of varying topics that transcend the boundaries of a single discipline. Writing-intensive and team-taught.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

227 Honors: Topics in University Studies (3) Interdisciplinary approach to a major scholarly or social issue for lower division students. Small group discussion of varying topics that transcend the boundaries of a single discipline. Writing-intensive.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

310 Special Topics in University Studies (3) Interdisciplinary approaches to issues transcending the boundaries of a single discipline. Topics may be initiated by faculty or students through arrangements with the University Studies Program. Taught by faculty from throughout the university (often team-taught). Discussion-based and writing-intensive.
Repeatability: May be repeated. Maximum 9 hours.

311 AIDS and Society (3) Speakers from across the state speak about scientific, social, medical, emotional, and financial aspects of acquired immunodeficiency syndrome. Students are required to participate in some AIDS-related community activity and to describe that activity in writing.

317 Honors: Special Topics in University Studies (3) Honors course utilizing an interdisciplinary approach to a significant scholarly or social issue. Topics change every semester. Consult Timetable for current offering. Discussion-based and writing-intensive.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

320 Special Topics in University Studies (3) Interdisciplinary approaches to issues transcending the boundaries of a single discipline. Topics may be initiated by faculty or students through arrangements with the University Studies Program. Taught by faculty from throughout the university (often team-taught). Discussion-based and writing-intensive.
Repeatability: May be repeated. Maximum 9 hours.

322 Technology, Society, and the Common Good (3) Explores philosophical and religious systems with a commitment to stewardship of the planet and those with an antagonistic or neutral perception of the natural world. Systems are presented in conjunction with cultural and species extinctions caused by or related to their beliefs and values.

410 Advanced Topics in University Studies (1-9) Interdisciplinary research approaches to major issues transcending the boundaries of a single discipline. Topics may be initiated by faculty or students through arrangements with the University Studies Program. Taught by faculty from throughout the university (often team-taught). Discussion-based and writing-intensive.
Repeatability: May be repeated. Maximum 9 hours.

411 Art and Organization (3) Interdisciplinary investigations of the relationship between art and biology. Readings and discussions focus on the idea that while art is one of the most wholly human cultural endeavors, it is undeniably linked to, if not emergent from, our basic biology.

417 Honors: Advanced Topics in University Studies (3) Honors course utilizing an in-depth interdisciplinary research approach to a significant scholarly or social issue. Topics change every semester. Consult Timetable for current offering. Discussion-based and writing-intensive.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

420 Advanced Topics in University Studies (1-9) Interdisciplinary research approaches to major issues transcending the boundaries of a single discipline. Topics may be initiated by faculty or students through arrangements with the University Studies Program. Taught by faculty from throughout the university (often team-taught). Discussion-based and writing-intensive.
Repeatability: May be repeated. Maximum 9 hours.

491 Foreign Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

492 Off-Campus Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

493 Independent Study (1-15)
Repeatability: May be repeated. Maximum 15 hours.

Wildlife and Fisheries Science (993)

101 Current Topics in Wildlife Health (1) All aspects of wildlife health, including current topics, emerging diseases, and impact of diseases on wildlife populations, general disease mechanisms, and career opportunities in the wildlife profession.

201 Ecology and Management of Wildlife Health (1) All aspects of wildlife health with an emphasis on current events and research.
(Re) Prerequisite(s): 101.

301 Introduction to Wildlife Diseases (3) Fundamentals of wildlife health and disease emphasizing relevant current information on the biology of physiological diseases, infectious agents, pathogenesis, epidemiology, wildlife management, interrelationships among diseases of wild animals, humans and domestic animals, and molecular techniques.
(Re) Prerequisite(s): 201 and Microbiology 310.

305 Prescribed Fire Management (2) Prescribed fire ecology, use, and management in forest stands.
(Re) Prerequisite(s): Forestry, Wildlife and Fisheries 212.
323 Human Dimensions of Wildlife and Fisheries (1) Examination of the linkages between people, institutions, and society at large to natural resource management practices. Case studies and application of basic skills of group communication and collaborative problem-solving and planning will be emphasized. Overnight field trips required.
(Re) Prerequisite(s): 305 and 341.

340 Wetland Ecology and Management (2) Ecology, restoration, and management of wetland ecosystems, including biotic and abiotic processes, functions, and wildlife considerations.
(Re) Prerequisite(s): Forestry, Wildlife and Fisheries 317.
341 Law Enforcement and Public Relations (2) Fundamentals and general principles of local, state, and federal laws and regulations governing natural resources and their management. Principles and practices of interacting with the public.
(Re) Prerequisite(s): English 102 and Communication Studies 210.
350 Wildlife Damage Management (2) Principles and methods for wildlife damage management, including biological, regulatory, practical, and social considerations. Weekend field trips (2) required.
Contact Hour Distribution: 2 hours lab and 1 lab or field.
(Re) Prerequisite(s): Forestry, Wildlife and Fisheries 317.
(Re) Corequisite(s): 305 and 323.
College Scholars Honors Courses 221
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