<table>
<thead>
<tr>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>353 Broadcast News Practice (2)</td>
<td>Prereq: 350. Preparation of news for broadcast. Students serve as assistants in newsrooms of University's broadcasting stations or, by special arrangement and perm., in other stations.</td>
</tr>
<tr>
<td>362 Community Newspapers (3)</td>
<td>Prereq: 333 or perm. Editorial and business practices of suburban weeklies and dailies.</td>
</tr>
<tr>
<td>363 Reviewing and Criticism (3)</td>
<td>Prereq: 231 or 231A and major, or perm. Written criticism of fine and popular arts. Special role of critic who serves both as reporter and evaluator of artistic works for lay audience.</td>
</tr>
<tr>
<td>370 Media Relations and Publicity (4)</td>
<td>Prereq: C or better 221, 270, 333. Focus on publicity function of public relations and on skills in both public relations writing and media contact.</td>
</tr>
<tr>
<td>407 Electronic Publishing (4)</td>
<td>Prereq: C or better in 231 or 231A and 233, or perm. Principles and case studies in communication law, constitutional guarantees, libel, privacy, contempt, privilege, copyright, and government regulatory agencies.</td>
</tr>
<tr>
<td>411 Communication Law (3)</td>
<td>Prereq: C or better in 231 or 231A and 233, or perm. Principles and case studies in communication law, constitutional guarantees, libel, privacy, contempt, privilege, copyright, and government regulatory agencies.</td>
</tr>
<tr>
<td>412 Ethics, Mass Media, and Society (3)</td>
<td>Prereq: C or better in 411 or perm. Social responsibility of journalist or other mass communicator. Professional codes, responsibility of media for social change, reaction to political and economic pressures.</td>
</tr>
<tr>
<td>415 Online Journalism Practice (3)</td>
<td>Prereq: 314 or perm. Development and production of a news site incorporating audio, video, and text formats. Stress on news gathering and presentation skills in an online media environment. Repeat with perm. Max 6 hours.</td>
</tr>
<tr>
<td>416 Seminar in Online Journalism (3)</td>
<td>Prereq: 314, 333. Introduction to ethical, theoretical, and societal issues of the Internet and online journalism. Digital divide and diversity, social impact of the Internet, and communicators' new roles in a globally networked society.</td>
</tr>
<tr>
<td>418 Web Editing and Management (3)</td>
<td>Prereq: 314. A problem-solving approach to creation and management of interactive features; evaluating effectivenss of Web sites; strategies and systems of site development.</td>
</tr>
<tr>
<td>419 Legal Issues of Online Journalism (3)</td>
<td>Prereq: 314. Legal issues as they apply to online journalism.</td>
</tr>
<tr>
<td>421 Graphic Production Processes (5)</td>
<td>Prereq: 221 and perm. Advanced study of all processes for reproducing printed communication. Theory and lab.</td>
</tr>
<tr>
<td>422 Advertising Production (4)</td>
<td>Prereq: 221, 321, or perm. Techniques and problems in methods of advertising production.</td>
</tr>
<tr>
<td>430 Magazine Editing and Production (4)</td>
<td>Prereq: 221, 233. Theory and techniques of magazine editing and production, including analysis of magazine industry and of specific magazines and audiences they serve. Editorial objectives and formulas, issue planning, article selection, layout, illustration, typography, printing, and distribution. Magazine project required.</td>
</tr>
<tr>
<td>431 Magazine Production Practice (3)</td>
<td>Prereq: 430, 441, repeat with perm, max 9 hrs. Practice course on E.W. Scripps School of Journalism's quarterly lab magazine. Each student assigned specific responsibilities in magazine editing, production, advertising, and circulation.</td>
</tr>
<tr>
<td>432 Specialized Business Magazines (4)</td>
<td>Prereq: 231 or perm. In-depth study of professional, business, industrial, and technical magazines. Consideration of all types of publishing, profitably as case studies.</td>
</tr>
<tr>
<td>435 Advanced Editing (3)</td>
<td>Prereq: 333. Edit content on deadline for Athens.com and its affiliated publications. Work with professional copy editors across the state to broaden perspectives on the craft of news editing.</td>
</tr>
<tr>
<td>441J Magazine Feature Writing (4)</td>
<td>(1J) Prereq: 231 or 231A, 233 or perm. Writing and marketing factual magazine feature articles of various types. Finding subjects, securing photographs, writing articles, and surveying markets.</td>
</tr>
<tr>
<td>442 Advanced Magazine Feature Writing (3)</td>
<td>Prereq: 441. Writing and marketing magazine articles. Emphasis on specialized markets.</td>
</tr>
<tr>
<td>450 Advertising Copy Writing (3)</td>
<td>Prereq: 221, 231 or 231A, 250. Effective persuasion in advertising media.</td>
</tr>
<tr>
<td>455 Seminar in Broadcast News (3)</td>
<td>Prereq: 350, 352. Discussion of problems—operational, social, economic, legal, and ethical—faced by broadcasters reporting public affairs.</td>
</tr>
<tr>
<td>458 TV News Practicum (4)</td>
<td>Prereq: 352. Practicum in preparation and presentation of TV newscast. Students select news material, including video, format, and script for newscast, then deliver on air. Students will rotate through various newsroom positions during quarter.</td>
</tr>
<tr>
<td>461 Specialized Journalism (3)</td>
<td>Prereq: 221 or perm. Seminar approach to individual study of journalistic areas of special interest to individual students.</td>
</tr>
<tr>
<td>464 Reporting of Public Affairs (3)</td>
<td>Prereq: 231 or 231A, sr, major, or perm. Problems of preparing in-depth, interpretive, and analytical reports on public affairs for mass media, with practice in writing such reports. Focus mostly on contemporary issues.</td>
</tr>
<tr>
<td>465 The Editorial Page (3)</td>
<td>Prereq: 333, sr, major, or perm. Problems of content, selection, and presentation of opinion on editorial page. Extensive writing of analytical and persuasive editorials and in-depth interpretive articles.</td>
</tr>
<tr>
<td>466 International Mass Media (4)</td>
<td>Prereq: sr. Development and operations of world mass communication channels and agencies. Comparative analysis of media, media practices, and flow of news throughout world. Relation of communication practices to international affairs and understanding.</td>
</tr>
<tr>
<td>467 Foreign Correspondence (4)</td>
<td>Prereq: 231 or 231A, or perm. Role of foreign correspondent in news gathering. History, scope, techniques.</td>
</tr>
<tr>
<td>470 Column Writing (3)</td>
<td>Prereq: 231 or 231A. The study of newspaper columnists, past and present, with extensive writing of various kinds of columns.</td>
</tr>
<tr>
<td>470 Sportswriting (3)</td>
<td>Prereq: 231 or 231A. A look at sportswriting from lead to 30—the good, the bad, and the ugly of life in a sports press box.</td>
</tr>
<tr>
<td>471 Public Relations Principles (4)</td>
<td>Prereq: 370, sr, and PR major or perm. Using contemporary case studies, all aspects of public relations are studied and analyzed in group discussions and written projects. Heavy emphasis on participation in class discussions.</td>
</tr>
<tr>
<td>472 Advanced Public Relations (4)</td>
<td>Prereq: 471 or perm. Planning public relations programs and projects, including selection of audiences, messages, and media, and evaluation of effects. Project in area of student's interest.</td>
</tr>
<tr>
<td>475 Advanced Advertising Media Planning and Buying (4)</td>
<td>Prereq: 250, 375, jr. Media theories appropriate in specific client advertising situations. Use of computer software for solving media problems. Review, creation, and testing of quantitative and qualitative media models, advanced work in media objectives, strategy, tests, and execution of media plans and evaluation.</td>
</tr>
<tr>
<td>476 Advertising Research (4)</td>
<td>Prereq: 233, 250. Original research in advertising, research methods and procedures, and syndicated/secondary research.</td>
</tr>
<tr>
<td>477 Promotion Media (4)</td>
<td>Prereq: 375. Overview and professional projects concerning media sales and promotion management. Development of sales promotion plan and professional advertising sales presentations.</td>
</tr>
<tr>
<td>479 Computer Assisted Reporting (3)</td>
<td>Prereq: 233, 331 or 464. Advanced class designed to introduce fundamentals of computer assisted reporting, specifically using database analysis.</td>
</tr>
<tr>
<td>481 Newspaper Management (3)</td>
<td>Prereq: 333. Problems in publishing affecting all departments.</td>
</tr>
<tr>
<td>482 Advertising Management (4)</td>
<td>Prereq: 340 and additional 8 advertising hrs. See title.</td>
</tr>
<tr>
<td>485 Journalism in the Secondary School Curriculum (4)</td>
<td>Prereq: 9 hrs of journalism or study and analysis of appropriate content for high school journalism courses. Planning course outlines and curricula.</td>
</tr>
<tr>
<td>486 Advertising Campaigns (5)</td>
<td>Prereq: 375, 450, and 8 additional advertising hrs. Capstone course in advertising sequence to provide thorough understanding of basic elements of advertising campaigns. Includes creation of campaign.</td>
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</tbody>
</table>
The following courses for the A.A.S. in law obtaining information, plus practical experience and functions of related juvenile agencies, laws and federal law enforcement agencies; survey communication, including newspapers, yearbooks, Chillicothe and Southern campuses:

140 Introduction to Criminalistics (3)
Survey of systematic collection of evidence and potentialities and recommendations of applied science to criminal investigation. Includes demonstration of techniques used in processing criminal evidence and practical experience in selected crime lab methods.

150 Police Patrol Operations (3)
Focus on patrol function. Examination of purposes, methods, techniques, and types of patrol. Overview of support services, examination of various police functions and public assistance, and analysis of deployment procedures and practices as related to overall mission of police patrol.

200 Procedures, Rules, and Test of Evidence (4)
Prereq: 120 or perm. Instruction designed to acquaint officer with court system in Ohio, its functions, authority, and duties. Explains workings of all courts of record and provides description of mayor's courts which are only courts not of record in State of Ohio. Kinds and degrees of evidence. Admissibility of evidence in criminal court cases, materiality and competency of evidence. Distinction between admissions and confessions; exceptions to hearsay rule; types of evidence.

210 Cybernetics (3)
Application and use of computers and/or automated systems for storage and retrieval of information. Types of electronic data processing systems and their compatibility with contemporary police operations explored.

220 Court Procedures and Processes (3)
Case preparation, officer testimony and demeanor in court, effective preparation and presentation of criminal evidence, trial procedures, use of written notes, and reaction to cross examination.

230 Police Community Relations (3)
Nature of relationships between police and various segments of community; racial and/or ethnic minorities, news media, clergy, and youth explored. Historical reasons for present dilemma and suggested changes to alleviate these problems.

240 Law Enforcement, Administration, and Supervision (3)
Prereq: 100. Principles of law enforcement agency administration. Organization, planning and research, management, personnel management, training, and public relations. Administrative functions in vice control, crime delinquency prevention and control, patrol, investigation, communications, statistics, and records.

250 Vice and Narcotic Control (3)
Prereq: 140. Exploration of history, identification, and effects of narcotics. Narcotic and vice problem as it exists and penal statutes affecting control of narcotics and vice studied.

260 Criminal Investigation (3)
Fundamentals of investigation; crime scene search and recording; correction and preservation of physical evidence, scientific aids, modus operandi, sources of information, interviews and interrogation, follow-up, and case preparation. 3 lec, 2 lab.

270 Arrest, Search, and Seizure (3)
Prereq: 200. In-depth discussion of moral and legal obligations in use of police weapons. Includes legal provisions, safety precautions, and restrictions in use of firearms. Advanced theories and application, police combat shooting, all-weather firing, and new developments in police weaponry. Training for student in lawful methods of search and seizure and discussion of search of persons, places, and things, with emphasis on legality. Applicable court decisions and rulings presented and discussed. 3 lec, 2 lab.

275 Law Enforcement and the Dead (4)
Problems involved in working with a deceased victim. Includes different types of death, different sing languages, problems in communication, cultural aspects, and protecting individual rights and the officer's case. Covers ADA requirements for law enforcement, courts, and attorneys.

276 Legal Rights of Hearing Impaired (4)
Up-to-date legislation involving hearing impaired/deaf citizens.

280 Traffic Enforcement, Education, and Engineering (3)
Prereq: 100. Law relating to registration of motor vehicles, driver's license, Vehicle Code sections most often encountered and violations, regulation and traffic control, traffic accident investigation, traffic accident report forms; types and uses.

290 Special Problems (3)
Provides opportunity for students to explore topics of interest on individual basis, or in structured courses developed as common interest arises.

Library Science
See Education—Curriculum and Instruction.

Latin
See Foreign Languages and Literatures.

Latin American Studies
See International Studies.

Law Enforcement Technology (LET)
The following courses for the A.A.S. in law enforcement technology are available on the Chillicothe and Southern campuses:

100 Introduction to Law Enforcement Technology (3)
Philosophy and history of law enforcement; overview of crime and police problems; organization and jurisdiction of local, state, and federal law enforcement agencies; survey of professional career opportunities and qualifications required.

110 Police Role in Crime and Delinquency (3)
Extent and distribution of crime and delinquency, with special emphasis on basic factors and conditions contributing to problems, case study and evaluation of community resources in prevention field and detailed review of role of school, family, religious institutions, law enforcement agencies, courts, and correctional institutions. Part law enforcement agencies play in juvenile delinquency, organization and functions of related juvenile agencies, laws governing handling of juvenile offenders, and brief resume of juvenile court and its jurisdiction.

120 Constitution, Criminal, and Civil Law (3)
Prereq: 100. Study of U.S. Constitution and amendments thereto by text material and case method system; major emphasis on freedom of speech, search and seizure, arrest and detention, interrogation and confession, self-incrimination, right to counsel, double jeopardy, and due process stipulated.

130 Interviewing and Report Writing (3)
Examination of interviewing and interrogation procedures employed by law enforcement for obtaining information, plus practical experience in use of methods. Mechanics of written reports, including collecting information and taking statements, writing descriptive narratives, and report revision.

140 Introduction to Criminalistics (3)
Survey of systematic collection of evidence and potentialities and recommendations of applied science to criminal investigation. Includes demonstration of techniques used in processing criminal evidence and practical experience in selected crime lab methods.
Courses / Linguistics

451 Computers for Language Teaching I (4)
Prereq: 270 or 350 or 351 (or concurrent) or perm. Introduction to uses of computers for language teaching, software selection, and creation of supplementary computer-assisted language learning (CALL) materials.

452 Computers for Language Teaching II (4)
Prereq: 451 and 480 or ML 445 or perm. Creation of CALL materials using authoring packages, authoring languages, or programming languages.

453 Computers for Language Teaching III (4)
Prereq: 452. Developing a comprehensive CALL package.

460 Phonology (5)
Prereq: 270 or 350 or 351 (or concurrent) or perm. Introductory course in analysis of sound systems of natural languages.

470 Syntax (4)
Prereq: 270 or 350 or 351. Introduction to theory and application of grammatical analysis of natural languages.

475 Theories of Language Learning (4)
Prereq: 270 or 350 or 351 or concurrent. Introduction to theories of first and second language acquisition and their implications for language teaching methodology.

480 TELF Theory and Methodology (4)
Prereq: 475 or concurrent. Second language teaching theory and methodology, with emphasis on teaching English as foreign language.

481 Methods and Materials in TESL (4)
Prereq: 475 or concurrent. Introduction to methods, techniques, and materials useful in the teaching of English in second language contexts and specifically in the public schools.

482 Materials in TEFL (4)
Prereq: 480 or concurrent. Theory and practice of analysis, evaluation, and creation of instructional materials for teaching English as a foreign language.

483 Testing in TESL (4)
Prereq: 480 or 481 or concurrent or perm. Evaluation and writing of language test items appropriate for measuring global competency and competency in specific skill areas. Entry and exit testing for public school ESL programs also discussed.

485 Historical Linguistics (4)
Prereq: 460. Study of genealogical classification of languages, and of historical change in language systems.

490 Sociolinguistics I (4)
Prereq: 270 or 350 or 351. Observation and analysis of similarities and differences of language behavior in variety of linguistic and sociocultural contexts.

491 Sociolinguistics II (4)
Prereq: 490. Introduction to relationships between interlocking systems of language and social grouping.

495 Directed Research (3)
Prereq: perm. Independently directed project on a particular topic of interest in linguistics; required of all majors.

496 Field Methods (4)
Prereq: 460 and 470. Methods of eliciting, transcribing, organizing, and analyzing linguistic data.

499 Special Studies in Linguistics (1–3)
Prereq: perm. Independent study of particular area of interest in linguistics.

Malaysian
See Foreign Languages and Literatures.

Management (MGT)

100 Managing (2)
Introduces the basic concepts of management and the basic functioning of business. In addition, students develop an understanding of current issues confronting managers in business and nonprofit organizations. Emphasis on starting to develop the skills to reason like a manager.

191 Workshop in Management (1–4)
Provides traditional and nontraditional students with specialized course offerings directed toward identified needs. Facilitates offering short courses, workshops, and institutes involving intensified instruction in pertinent management areas.

202 Management (4)
Prereq: soph. Emphasis of practice in solving problems facing managers and administrators using concepts and principles from behavioral sciences and other applicable disciplines.

240 Introduction to Management and Organization (4)
Prereq: soph; College of Business majors only. Provides an introductory coverage of topics in management. The course offers an early focus on teamwork and group dynamics to assist students when they take the integrated cluster. The course also includes specific assignments designed to enhance COB majors’ Electronic Student Portfolios.

298 Internship (1)
Prereq: perm. Internship experience that provides on-site exposure to general business operations and procedures. Intended for experiences following the freshman year.

340 Organizational Behavior (4)
Prereq: jr. Examines the behavior of individuals and groups in organizations. Focus on high performance and satisfaction in the modern workplace, and in context of cultural diversity, globalization, ethical behavior, and social responsibility. Designed to enhance career readiness in management and team leadership.

345 Organizational Behavior—Macro Perspective (4)
Prereq: jr. Organizational theory and behavior emphasizing formal organizational theory and work group behavior. Concentrates on interaction between organization, its environment and its members, and influences of informal work groups on member behavior.

350 Creativity and Innovation Management (4)
Prereq: jr. Examination of the role of creativity and innovation in business with a particular focus on the management of the innovation process. Students will explore personal creativity, management practices that enhance or suppress creativity, the relationship between creativity and innovation, and the process of innovation in a business setting.

398 Internship (1–4)
Prereq: perm. Internship experience that provides opportunities to learn by participating in day-to-day activities of a business concern for at least four consecutive weeks. Intended for experience following the sophomore year.

430 Management Systems—Decision Making (4)
Prereq: 202 or 240 or perm. Decision making and problem solving in organizations from managerial perspective.

462 Women in Management (4)
Prereq: junior. This course explores a variety of social-psychological research on gender issues that affect work behaviors in today’s rapidly changing workforce. Emphasis is placed on student activities, research of pertinent topics, readings, reports, on-line dialogue, and incorporates community service learning.

480 Managing Transformations and Organizational Change (4)
Prereq: 340. Examines theories, concepts, and applications relating to change leadership in the modern workplace. Focus on internal processes of organizational transformation, change, and development. Designed to improve leadership potential through understanding change models and strategies, resistance to change and change leadership roles in the context of a competitive, certain, and ever-changing external environment.

484 International Comparative Management (4)
Prereq: sr. and survey of similarities and differences in management systems, processes, and styles, as well as evaluation of changes and their impact in selected groups of countries.

486 Business World of Asia (4)
Prereq: 202 or 240 or sr. or perm. Examines the current business environment of Asia from the perspective of contemporary history, culture, religion, political economy, geography, and other events. Emphasis is given to developing awareness of global information resources on prospects for active business involvement in Asia. Students are encouraged to develop special expertise in one of the Asian countries, to network with one another for broader understanding, and to pursue in-depth areas of special personal interest.

490 Strategic Business Leadership (4)
Prereq: MGT 340, MGT 350, and sr. Examination of the leadership theories in the context of the strategic business challenges of increased global competition, advances in technology, and the importance of intellectual capital. The focus is on the executive ability to make strategic choices that generate superior performance within and by organizations.

491 Seminar (3–5)
Prereq: jr. or perm. Selected topics of current interest in management and organizational behavior area.

492 Management Thought (4)
Prereq: jr. Review of development of managerial theories from 5000 B.C. to present with consideration of their application to current organizational settings.

494 Management Research (4)
Prereq: 12 hrs of management courses. Practical application of research methods in behavioral sciences to management problems, emphasizing research available and its use in decision making and in solving managerial problems.

497 Independent Research (1–4)
Prereq: perm. Research in selected fields of management and organizational behavior under direction of faculty member.

497H Independent Research (1–4)
Prereq: 3.3 g.p.a., written proposal, and perm. Independent research. Course content selected by professor and student.

498 Internship (1–4)
Prereq: perm.

499 Strategic Business Leadership Portfolio (1)
Prereq: MGT 340, 350, 480, and 490 or concurrent. Formalizes in an electronic portfolio a comprehensive demonstration and self-assessment of the student’s career readiness for strategic business leadership. Informs a formal portfolio defense. A “CR” must be received in this course to graduate with a major in Management and Strategic Leadership.
Management Information Systems (MIS)  
201 Introduction to Microcomputers (3)  
Introduces student to computer concepts within the framework of business applications. Students do computer assignments including word processing, spreadsheet analysis, presentation software, and web pages. No credit for both 201 and CS 120.

202 Business Information Systems (4)  
Prereq: 100 or 201 or CS 120 or CTCH 125 or BMT 200 or HS 309 or IT 103. Addresses issues that arise in dealing with management information as a business resource. As an introduction to the field of management information systems, topics covered include computer technologies, information development, and impact of information systems on business organizations at a variety of levels, from personal information systems to organization information architectures. Major attention is given to the implications of information systems for achieving competitive advantage.

220 Introduction to Business File Processing (4)  
Prereq: 100 or 201 or CS 120 or CTCH 125 or BMT 200 or HS 309 or IT 103. Students learn to write programs in a GUI environment to solve business problems. Structured programming is emphasized.

225 Prototyping and Fourth Generation Languages (4)  
Prereq: 220 with B grade or better. Students will learn how to write business applications using fourth generation languages to process data in an object-oriented environment.

230 Advanced Microcomputer Spreadsheet Applications (4)  
Prereq: 100 or 201 or CS 120 or CTCH 125 or BMT 200 or HS 309 or IT 103. Advanced functions of spreadsheet packages will be examined. Groups of spreadsheet applications will be integrated to create systems designed to support common business functions.

235 Advanced Microcomputer Data Base Applications (4)  
Prereq: 100 or 201 or BMT 200 or CTCH 125 or CS 120 or HS 309 or IT 103. Relational data base software will be used to create integrated data storage and retrieval systems. These systems will be used to solve business problems.

298 Internship (1)  
Prereq: perm. Internship experience that provides on-site exposure to general business operations and procedures. Intended for experiences following the freshman year.

320 Business Systems I (4)  
Prereq: 220 with B grade or better. Coreq: MIS 380. First of a two-part series related to the development of computer information systems in business. This course looks at the planning and management of information systems development projects, along with tools for requirements analysis and evaluation of alternatives. Emphasis on prototyping and use of fourth generation languages.

325 PC LAN Applications (4)  
Prereq: 220 with B grade or better. Introduction to Local Area Networks. Students serve as network administrators to install, cable, and configure a Local Area Network. Topics include creating users, installing software, setting up printers, establishing security, and managing the network.

380 Business Data Base I (4)  
Prereq: 220 with B grade or better. Coreq: 320. Focuses on the use of relational data base technology in implementing business applications. Emphasizes the concepts of data base design and implementation and gives students a chance to create their own data bases.

398 Internship (1–4)  
Prereq: perm. Internship experience that provides opportunities to learn by participating in day-to-day activities of a business concern for at least four consecutive weeks. Intended for experience following the sophomore year.

400 Contemporary Business Programming (4)  
Prereq: 320 and 380. Students learn how to develop business applications using contemporary business programming tools and techniques. Programming languages and development environments are reviewed periodically based on accepted and evolving business practice.

420 Business Systems II (4)  
Prereq: 400. Coreq: 485. Second of a two-part series on the development of computer information systems. This course looks at tools for design and implementation of computer information systems, along with testing and maintenance of systems.

430 IBM COBOL (4)  
Prereq: 320 and 380. Deals with application of COBOL programming language to problems in marketing, finance, management, accounting, and economics.

455 Distributed Systems (4)  
Prereq: 325. This class treats organization-wide networking, comparing the advantages and disadvantages of various network configurations. The class emphasizes business network planning, with special attention to data administration policies and procedures.

460 Introduction to Groupware Applications (4)  
Prereq: 320, 380. Introduces to the industry standard groupware product, Lotus Notes. The purpose of this course is twofold: (1) an understanding of groupware, groupware applications, and business implications of these applications, and (2) hands-on experience with using Lotus Notes and designing groupware applications for business. This course builds on the concepts learned in Business Data Base I. Students learn to use advanced data base features in a lab-oriented environment. Applications will be written to solve business problems using the data stored in the data base.

480 Business Data Base II (4)  
Prereq: 380. This course builds on the concepts learned in Business Data Base I. Students learn to use advanced data base features in a lab-oriented environment. Applications will be written to solve business problems using the data stored in the data base.

485 Management Information Systems (4)  
Prereq: 400. Coreq: 420. This is the capstone course for MIS majors. It will focus upon ways in which information systems can be created to give competitive advantages to businesses. The class will emphasize the management of computing from a people and data perspective, demonstrating that computer-based systems are increasingly the principal tool of effective management.

491 Seminar (1–4)  
Prereq: 320, 380. Selected topics of current interest in the management information systems area.

492 Lab Assistant Seminar (1–15)  
Prereq: perm. Students assist instructors with advising of students in lab classes. Assistants must receive an A in the lab class to be eligible to serve as an assistant. One hour of credit is given for three hours of assistant work.

497 Independent Research (1–4)  
Prereq: accepted proposal and perm. Research in selected fields in management information systems under the direction of a faculty member. Student must submit a proposal and have it accepted by a faculty member before taking this course.

498 Internship (1–4)  
Prereq: 12 hrs of MIS courses above 100, perm.

Marketing (MKT)  
101 Consumer Survival in the Marketplace (4)  
Prereq: ACCT 101. Formerly 301. This course provides a broad understanding of marketing activities, decisions, and terms with an emphasis on the practices and problems of marketing managers and the analysis of the marketing environment.

258 Skills for Professional Development  
Focuses on developing personal skills such as time management, networking, telephone use, computer etiquette, business etiquette, positive thinking, stress management, career planning, listening, and mapping the informal organization. Topics chosen by instructor.

298 Internship (1)  
Prereq: perm. Internship experience that provides on-site exposure to general business operations and procedures. Intended for experiences following the freshman year.

358 Professional Selling Techniques (4)  
Prereq: 202 or 301; marketing major or perm. This course combines personal selling theory with actual practice. Students learn skills needed for successful careers in sales and marketing.

379 Marketing Research (5)  
Prereq: 220 or 301; QBA 201 or equiv. statistics course. This course provides an introduction to the field of marketing research for effective decision-making. Students will learn techniques involved in collection, tabulation, and analysis of marketing information.

398 Internship (1–4)  
Prereq: perm. Internship experience that provides opportunities to learn by participating in day-to-day activities of a business concern for at least four consecutive weeks. Intended for experience following the sophomore year.

404 Management of Distribution (4)  
Prereq: 202 or 301; ACCT 102; preference to majors. Problems encountered by manufacturers and retailers in establishing and maintaining effective distribution system, concentrating on channel design and strategies.

420 Services Marketing (4)  
Prereq: 202 or 301 or perm. This course reflects the increasing proportion of GNP taken up by the service sector. Industries that do not sell a physical good as their main offering to the public are examined. These could include the recreation industry, government agencies, financial institutions, and professional (legal, medical) services.

425 Business to Business Marketing (4)  
Prereq: 202 or 301. This course introduces the field of business-to-business (B2B) marketing. The course answers the questions: What is business marketing? In what markets does it occur? Topics include: Organizational buyer behavior, methods of assessing business market opportunities, and business marketing strategies.

441 International Marketing (4)  
Prereq: 202 or 301; preference to majors. This course focuses on understanding the major issues facing international/global marketing managers today through the application of marketing principles in the international/global business environment.

444 Consumer Behavior (4)  
Prereq: 202 or 301. This course illustrates the practical importance of understanding consumers' knowledge and attitudes, incorporating various approaches for assessing such knowledge and attitudes. It identifies major factors that influence
The following courses for the proposed A.A.S in Marketing strategy. 2 lec, 2 lab.

270 Introduction to Organizational Behavior (4) Prereq: 101. Study of a particular pertinent to the materials management field under direction of a faculty member. May be repeated. 1-5 lec, 2-8 lab.

290 Internship (4) Prereq: 101, 200, 250, 262, 263, 264. Performance of materials manager duties in a supervised, unpaid experience, working 28 hours/week with local businesses. Efforts are made to rotate experience.

Mathematics (MATH)

101 Basic Mathematics (4) Prereq: placement level Dev1. Developmental course in arithmetic and elementary algebra for students with unusually weak background. Credit applies as hours toward graduation but meets no other college requirement. No credit to student who has passed higher-level mathematics course.

102 Elementary Algebra (4) Prereq: placement level Dev2. Developmental course in algebra for students with unusually weak backgrounds. A maximum of 8 credit hours of developmental courses may be applied for graduation. Meets no other college requirement. No credit to student who has passed higher-level mathematics course. Available on regional campuses.

113 Algebra (5) (1M) Prereq: 101 or placement level 1. Topics in algebra including functions, linear equations and systems, polynomials, rational and radical expressions, quadratic equations, exponential and logarithmic functions, and inequalities. Graphing calculators are employed. No credit to those with credit for 117 or 263A.

115 Pre-Calculus (5) (1M) Prereq: 113 or placement level 2. Graphs, inverses, and operations of functions. Study of polynomial, rational, exponential, logarithmic, and trigonometric functions. Additional topics from trigonometry and analytic geometry. Recommended only for students intending to enroll in the 263 calculus sequence.

117 Elementary Applied Mathematics (4) (1M) Prereq: placement level 1. Topics from intermediate algebra such as functions and graphs, systems of linear equations, 3x3 determinants, factoring, quadratic equations and inequalities, exponents and radicals, and logarithms. Available by correspondence and on some regional campuses. Students cannot earn credit for both this course and 113.

118 Elementary Applied Mathematics (4) (1M) Prereq: 117 or placement level 1. Topics from trigonometry and analytic geometry including trigonometric functions, vectors and oblique triangles, trigonometric identities, j-operator, straight lines, conic sections, and translation of axes. Available on a number of campuses and on some regional campuses. Students cannot earn credit for both 118 and any of: 115, 116, or 130.

120 Elementary Topics in Mathematics (4) (1M) Prereq: placement level 1. 120-121-122 is a sequence for majors in elementary education and related fields. Emphasis is on number systems and related properties. 121 and 122 focus on topics related to elementary curriculum including geometry, algebra, statistics, and probability. Satisfies Tier I requirement for elementary education majors only. Does not apply to Arts and Sciences natural science requirements.

121 Elementary Topics in Mathematics (4) (1M) Prereq: 120. Continuation of 120. Does not apply to Arts and Sciences natural science requirements.

122 Elementary Topics in Mathematics (3) (1M) Prereq: 121. Continuation of 120-121. Does not apply to Arts and Sciences natural science requirements.

147 Introductory Game Theory (4) (1M) Prereq: 101 or placement level 1. Course introduces mathematical models for situations of conflict, whether actual or recreational. Topics include matrix representation of games, two-person and n-person games, zero and nonzero-sum games, Nash equilibria, cooperation and the prisoner's dilemma. Application to topics such as warfare, business decisions, football, environmental policy, evolution, voting, and poker will be considered.

150 Finite Mathematics (4) (1M) Prereq: 113 or placement level 2. (formerly 250A) Set theory; logic; vectors and matrices; linear programming.

163A Introduction to Calculus (4) (2N) Prereq: 113 or placement level 2. Presents a survey of basic concepts of calculus. For students who want an introduction to the subject, but do not need the depth of 263A-B-C. Note: Students cannot earn credit for both 163A and either of 263A or 263B.

163B Introduction to Calculus (3) (2N) Prereq: 163A. Continuation of 163A. Note: Students cannot earn credit for both 163B and either of 263A or 263B.

211 Elementary Linear Algebra (4) (1M) Prereq: 115 or placement level 2. Solutions to systems of linear equations, matrices and matrix algebra, determinants, n-dimensional real vector spaces and subspaces, bases and dimension, linear mappings, matrices of linear mappings, eigenvalues and eigenvectors, diagonalization. Emphasis is on techniques and computational skills. No credit to students who have completed 410 or 411.

250 Introduction to Probability and Statistics I (4) (1M) Prereq: 113 or placement level 2. (formerly 250B) Organization of data, central tendency and dispersion, probability, concept of random variables, binomial and normal probability distributions. No credit for 250 if already credit for 450A, PSY 120, PSY 121, PSY 221, ISE 304, or ISE 305.

251 Introduction to Probability and Statistics II (4) (1M) Prereq: 250. Estimation, testing hypotheses, linear regression and correlation, and analysis of variance. Students in business administration should enroll in more specialized QBA 201. No credit for 251 if already credit for 450B, QBA 201, PSY 121, PSY 221, or ISE 306.
NOTE: It is strongly recommended that students who earn less than a 2.0 in any course in the 263 calculus sequence retake that course before progressing in the sequence.

### 263A Calculus I (4) (2N)
Prereq: 115 or placement level 3. Limits and differentiation, including trigonometric functions. Applications of the derivative. NOTE: Students cannot earn credit for both 263A and either of 163A or 263B.

### 263B Calculus II (4) (2N)
Prereq: 263A or 266A. Integration, logarithmic, exponential, and other transcendental functions; indeterminate forms, improper integrals, and techniques of integration. NOTE: Students cannot earn credit for both 263B and either 163B or 266B.

### 263C Calculus III (4) (2N)
Prereq: 263B or 266B. Continuation of 263A-B. Parametric equations, polar coordinates, infinite series, and vectors.

### 263D Calculus IV (4)
Prereq: 263C. Continuation of 263A-B-C. Multidimensional topics, partial differentiation, multiple integrals.

### 266A Calculus with Applications to Biology I (4) (2N)
Prereq: 115 or placement level 3. Introduction to dynamical models in the context of biological applications. Students cannot earn credit for both 266A and either of 163A or 263A.

### 266B Calculus with Applications to Biology II (4) (2N)
Prereq: 266A. Continuation of 266A. Integral calculus and the analysis of differential equations in the context of biological applications. No credit for 266B if already credit for 163A or 263B.

#### 297T Mathematics Tutorial (1–15)
(fall) Special program for students of unusual ability.

#### 298T Mathematics Tutorial (1–15)

#### 299T Mathematics Tutorial (1–15)
(fall) Special program for students of unusual ability.

### Foundations of Mathematics II (4)
Prereq: math major, jr or sr. Survey of main lines of mathematical development in terms of contributions made by great mathematicians. NOTE: The following four courses (306, 307, 314, 330) are primarily intended for prospective mathematics majors to introduce them to mathematical theory at an elementary level.

### Introduction to Number Theory (4)
Prereq: 306. Investigation of properties of natural numbers. Topics include mathematical induction, prime factorization, Euclidean algorithm, Diophantine equations, congruences, and divisibility.

### Elementary Abstract Algebra (4)
Prereq: 306. Groupings, relations, definitions, and examples of groups, groups of rotations, cyclic groups, Lagrange's Theorem, fields, polynomials over fields.

### Teaching of Mathematics in Secondary School (5)
Prereq: 211, 330B, and Jr. Orientation to professional mathematics education and topics related to teaching of mathematics on secondary school level. Not counted toward math major or minor.

### Foundations of Geometry (4)
Prereq: 306. Introduction to axiomatic mathematics via 2 finite geometries and variety of interpretive models. Develops plane Euclidean and non-Euclidean geometries in rigorous fashion from axiomatic approach.

### Foundations of Geometry (4)
Prereq: 330A. Continuation of 330A. See 330A for description.

### Elementary Projective Geometry (4)
Prereq: 330 or perm. Topics in projective geometry.

### Differential Equations (4)
Prereq: 263C. Ordinary differential equations and related topics.

### Mathematical Modeling (4)
Prereq: 250, and 163B or 263B. Construction and analysis of mathematical models and their use in investigation of physical, chemical, geological, social, and environmental problems. Models which use only elementary mathematical concepts stressed.

### Numerical Methods for Civil Engineers (4)
Prereq: 340 and Civil Engr major (B57525).

### Intermediate Analysis (4)
Prereq: 263D and 306, or perm. Rigorous study of limits, continuity, and differentiability of functions of 1 real variable.

### Mathematics Tutorial (1–15)
(fall) Special program for students of unusual ability.

### History of Mathematics (4)
Prereq: math major, jr or sr. Survey of main lines of mathematical development in terms of contributions made by great mathematicians.

### Algebraic Coding Theory (4)
Prereq: 211, 263D, or 330A. Continuation of 297T and 330T. See 330T for description.

### Number Theory (4)
Prereq: 306. Introductory topics in set theory and axiomatic development of real number system.

### Matrix Theory (4)
Prereq: 263D. Matrix algebra, determinants, solutions of linear systems, eigenvalues and eigenvectors, matrix functions and applications to differential equations, Jordan canonical form, inner products diagonalization and generalized inverses. Intended primarily for students interested in applied mathematics, engineering, and sciences.

### Linear Algebra (4)
Prereq: 306. (fall) Vector spaces and linear transformations, characteristic values, quadratic forms, dual spaces, normal forms, and Jordan canonical form.

### Introduction to Algebraic Coding Theory (4)
Prereq: 211 or 411. Encoding and decoding for finite abelian groups and their consequences. Cauchy theorem and first Sylow theorem. Polynomial rings. UFD and Euclidean domains.

### Theory of Linear and Nonlinear Programming (4)
Prereq: 211 or 410, and 263D; computer programming experience is desirable. Minimization of functions subject to equality and inequality constraints. Kuhn-Tucker theorem, algorithms for function minimization, such as steepest descent and conjugate gradient and penalty function methods. (Not a course in computer programming.)

### Mathematical Modeling and Optimization (4)
Prereq: 263D, 340, 211 or 410. Investigation of differential equation and/or discrete optimization models of physical, social, biological phenomena and large economic systems by qualitative analysis, Optimal criteria incorporated to convert models to optimal control problems. Pontriagin's maximal principle used to find analytic solutions. Numerical solutions to optimal control problems also treated. Discrete optimization includes topics from linear and integer programming, network algorithms and their analysis.

### Introduction to Numerical Analysis (4)
Prereq: 263D, 340, and CS210 or CS 220. Polynomial interpolation and approximation; numerical integration and differentiation; numerical solution to differential equations; numerical methods for matrix inversion, determination of eigenvalues, and solutions of systems of equations.

### Advanced Numerical Methods (4)

### Numerical Linear Algebra (4)
Prereq: 410 and CS210 or CS 420 or equiv. Floating point arithmetic, numerical solution of systems of linear equations using Gaussian elimination and its variants, numerical techniques for eigenvalues, error analysis, and implementation of algorithms on computer.

### Advanced Differential Equations (4)
Prereq: 340, and 411 or 411. Introduction to theory of ordinary differential equations with special attention to oscillation, plane autonomous systems, Liapunov theory, and quadratic functionals.

### Theory of Statistics (4)
Prereq: 263D. (fall) Topics in the 450A-B-C sequence include probability distributions of one and several random variables, conditional probability and independence, expectation and variance, moment generating functions, the central limit theorem, sampling theory, estimation, testing hypotheses, regression and correlation, and analysis of variance.

### Theory of Statistics (4)
Prereq: 450A. Continuation of 450A. See 450A for description.
450C Theory of Statistics (4)
Prereq: 450B. (spring) Continuation of 450A-B. See 450A for description.

451 Stochastic Processes (4)
Prereq: 450B. Markov chains, Poisson process, birth and death process, queuing, and related topics.

452 Statistical Computing (4)
Prereq: 450B. Introduction to computational statistics; Monte Carlo methods, bootstrap, data partitioning methods, EM algorithm, probability density estimation, Markov Chain Monte Carlo methods.

455 Basic Principles of Actuarial Science (4)
Prereq: 450A. Basic concepts of risk theory and utility theory, applied calculus and probability models for the analysis of claims, frequency and severity of distributions, loss distributions, premium determination, insurance with deductible, reinsurance and self-insurance.

456 Theory of Interest and Life Contingencies (4)
Prereq: 450A. Theory of interest and contingent payment models. Mathematical models for the actuarial present value of a future set of payments contingent on some random event(s); life insurance, life annuities, benefit reserves.

460A Advanced Calculus (4)
Prereq: 360D. (fall) Critical treatment of functions of one or several variables. Topics in the 460A-B-C sequence include the basic topological features of Euclidean spaces, a careful study of limits and continuity, Riemann-Stieltjes integration, uniform convergence, and multidimensional differentiation and integration.

460B Advanced Calculus (4)
Prereq: 460A. (winter) Continuation of 460A. See 460A for description.

460C Advanced Calculus (4)
Prereq: 460B. (spring) Continuation of 460B-A. See 460A for description.

470 Complex Variables (4)
Prereq: 263D. Analytic and harmonic functions. Cauchy integral and residue theorems, contour integration, Taylor and Laurent expansions, conformality, and linear transformations with applications.

480A Elementary Point Set Topology (4)
Prereq: 360D. (winter) Topology of Euclidean spaces and general metric spaces.

480B Elementary Point Set Topology (4)
Prereq: 480A. (spring) Introduction to general topological spaces.

486 Introduction to Bioinformatics (4)
Prereq: grade of 2.0 or better in 263B or 266B. Major topics and techniques in bioinformatics, including homology searches, sequence alignment, gene finding, phylogenetic trees. The course combines biological, computational, and statistical approaches to the extraction of information from large sets of biomolecular data.

490 Selected Topics in Mathematics (1–5)
Prereq: permission of instructor and chair. When demand is sufficient, course in some phase of mathematics will be offered under this number. (May be repeated for credit.)

491 Studies in Mathematics (1–15)
Prereq: 6 or 400-level courses, Sr or Jr in Honors Tutorial College, or perm of chair and instructor. Selected topics in mathematics studies of guidance of topics particularly interested in field. (May be repeated for credit.)

497T Mathematics Tutorial (1–15)
(fall) Special program for students of unusual ability.

498T Mathematics Tutorial (1–15)
Prereq: 497T. (winter) Continuation of 497T. See 497T for description.

499T Mathematics Tutorial (1–15)

Medical Assisting Technology (MAT)
The following courses for the A.A.S. in medical assisting technology are available only on the Lancaster campus:

101 Introduction to Medical Assisting (2)
Introduction to the field of medical assisting. Roles and responsibilities of a medical assistant; overview of the health care profession; and the safety, liability, professional, and interpersonal relationships necessary in the medical field.

140 Medical Terminology for the Medical Assistant (3)
Understanding and usage of medical terms used in the allied health field. Emphasis is on the spelling of, definition of, and creation of medical terms through the understanding of prefixes, suffixes, and roots. Medical Terminology learned through body system knowledge. Credit cannot be earned for both 140 and OTEC 141M.

150 Medical Transcription and the Medical Assistant (3)
Prereq: 140 or concurrent, OTEC 121. Application of medical transcription rules to typical medical documents, including those used in both hospitals and ambulatory-care settings. Covers proper use and correct spelling of medical terminology, as well as increased production of documents.

170 Administrative Medical Assisting (4)
Prereq: 101, OTEC 121. Introduction to the medical office and current administrative practices. Topics include confidentiality and the daily practices of the medical assistant.

201 Clinical Techniques (4)
Prereq: 101, BIOS 103. Introduction to medical laboratory theory and practice in preparation for physical examination. Patient and exam room preparation, vital sign tests, taking health histories, aseptic techniques, infection control, and universal precautions are studied. 3 lec, 2 lab.

202 Clinical Techniques II (4)
Prereq: 201. Theory and practice in minor hematology, laboratory tests, urinalysis, administration of drugs, laboratory reports, pharmacology, and venipuncture. Covers documentation and government regulations, and the processes of sterilization, quality control, and vision and blood testing. 2 lec, 4 lab.

203 Clinical Techniques II (4)
Prereq: 202. Theory and practice in assisting with minor office surgery, office procedures, and diagnostic procedures. Operation, maintenance, and inventory control of equipment and supplies required of a medical assistant. 2 lec, 4 lab.

210 Law and Ethics for Medical Assisting (2)
Prereq: 101. Introduction to the law and ethics as they apply to allied health fields. Topics include practicing in a medical office, professional liability and malpractice, medical records and informed consent, medical ethics, documentation and reporting, and licenses and accreditation.

230 Insurance Billing and Coding for the Medical Assistant (2)
Prereq: 140. 170. Theory and application of skills necessary to process insurance forms in the health care setting. Covers nationwide medical insurance programs and extensive study and use of ICD-9-CM and CPT coding.

250 Computerized Office Procedures for the Medical Assistant (4)
Prereq: 170, 230. Theory and application of skills necessary to manage administrative duties in a medical office. Emphasis is on computer applications and tasks such as scheduling and billing.

290 Special Topics (1–5, max 5)
Prereq: 101. Special topics current and relevant to the medical assisting field.

291 Independent Study (1–5, max 5)
Prereq: 101. Independent study of a particular topic pertinent to medical assisting under the direction of a faculty member.

295 Externship (3)
Prereq: 203. Practical experience as a medical assistant in a supervised unpaid clinical experience. Student performs administrative and clinical procedures and develops professional attitudes. Student works 21 hours per week each week during the quarter enrolled.

Medical Technology
See Preparation for Clinical Laboratory Science Under Arts and Sciences or Biological Sciences Under Courses of Instruction.

Microbiology
See Biological Sciences.

Military Science (MSC)
Army ROTC
The Department of Military Science offers a program of instruction leading to a commission as a second lieutenant in the United States Army, the United States Army Reserve, or the Army National Guard. Military science is an elective program open to both men and women who are citizens of the United States.

The four-year program consists of a basic course and an advanced course. The basic course requires successful completion of military science 100- and 200-level courses during the freshman and sophomore years. The advanced course requires successful completion of military science 300- and 400-level courses during the last two academic years. During both the basic course and the advanced course, you must attend a leadership lab for two hours each week in addition to the hours of classroom instruction each week. Advanced course students must also attend a 32-day summer training camp. (See MSC 330.)

No military obligation is incurred for the first two years of the four-year program. Following completion of the basic course, qualified students are accepted for the advanced course by entering a ROTC contract which obliges them to complete the program of instruction and accept a commission in the U.S. Army, U.S. Army Reserve, or the Army National Guard. Advanced course students receive a subsistence allowance of up to $400 for each academic month of enrollment, not to exceed two years.

The two-year program is offered for students who transfer from colleges that do not offer ROTC or whose academic course load did not permit military science during their first two years. Students qualify for the two-year program in one of several ways. First is by attending Army ROTC Leaders Training Course (see MSC 230). Upon successful completion of camp, you may enter the advanced course. Attending Leaders Training Camp does not require you to continue in the program, nor does it incur any military obligation. The second is by receiving credit for honorable prior military service of at least one year, as determined by the professor of military science. Additionally, you may receive credit for two or more years of junior ROTC at the high school level. After receiving credit for the basic course, you proceed with the advanced course as previously described. Other options are available for selected situations or circumstances.

Regional Campus Students can participate in the two-year program by attending advanced courses at the Athens campus.
101  Fundamental Military Leadership Concepts (1)
Prereq: fr or soph. (fall) Broad overview of the Army as an institution of the U.S. government. Introduces students to the Army's Reserve Officer Training Corps (ROTC) and overview of the curriculum that can lead to a commission as a second lieutenant in the U.S. Army. Increases self-confidence through activities in basic drill, physical fitness, rappelling, and firing the M-16 rifle. Teaches fundamental concepts of leadership in a profession in both classroom and outdoor laboratory environment. 1 hr and a required 2-hr lab, 110L, plus optional participation in a 1-hr session for physical fitness and a weekend exercise.

102  Fundamental Military Concepts and Basic Leadership I (1)
Prereq: fr or soph. (winter) Provides an understanding of selected basic soldier skills that are essential to the Army's ability to win on the modern battlefield. Develops communication and leadership skills to improve individual performance and group interaction. Reinforces self-confidence through participation in basic drill, physical fitness, and a water survival exercise. Provides hands-on training of basic individual skills both in the classroom and outdoor laboratory environment. 1 hr and a required 2-hr lab, 110L, plus optional participation in a 1-hr session for physical fitness and a weekend exercise.

103  Basic Military Leadership II (1)
Prereq: fr or soph. (spring) Continuation of selected basic soldier skills that are essential to the Army’s ability to win on the modern battlefield. Develops skills to navigate on the ground by understanding map reading. Reinforces self-confidence through participation in basic drill, physical fitness, rappelling, and a land navigation exercise. Provides hands-on training of basic individual skills both in the classroom and outdoor laboratory environment. 1 hr and a required 2-hr lab, 110L, plus optional participation in a 1-hr session for physical fitness and a weekend exercise.

110L  Leadership Laboratory (1)
Prereq: Concurrent with 101, 102, 103. Provides additional skills and hands-on experiences and allows the student to practice what was taught in the classroom. Offers insight into a military organization and builds self-confidence and team-building skills.

201  Advanced Military Leadership (2)
Prereq: fr or soph. (fall) Continues basic skills by applying teamwork as a small group. Teaches the fundamentals of land navigation and basic life-saving techniques. Enhances survival awareness through lectures, films, and participation. Includes a 48-hour field exercise which occurs on a weekend during the quarter. 2-hr-a-week course with a required Leadership Lab, MSC 201L, one day a week. The course also includes rappelling and rifle familiarization, which may not occur during inclement weather.

202  Military Leadership, Tactics, and Officiership (2)
Prereq: fr or soph. (winter) Uses ethics-based leadership skills to develop individual abilities and contribute to the building of effective teams of personnel. Develops skills in oral presentations and military correspondence. Presents the fundamentals of military leadership and their application to team development. Teaches the basic duties of the commissioned and noncommissioned officer. This course is a 2-hr-a-week course with a required Leadership Lab, MSC 202L, once a week.

203A  Military Tactics and Officiership II (2)
Prereq: fr or soph. (spring) Introduction to individual and team development of military tactics in small unit operations. Includes use of radio communications, movement techniques, issue and operation order, security, and troop leading procedures. Teaches techniques for training others as an aspect of continued leadership development. This course is a 2-hr-a-week course with a required Leadership Lab, MSC 203L, one day a week. Includes rappelling and rifle familiarization, which may not occur during inclement weather.

210L  Leadership Laboratory (1)
Prereq: Concurrent with 201, 202, 203. Provides additional skills and hands-on experiences and allows the student to practice what was taught in the classroom. Offers insight into a military organization and builds self-confidence and team-building skills.

230  Leaders Training Course (4)
28-day summer off-campus training program that qualifies students for direct entry to advanced ROTC course. Transportation to and from camp, uniforms, meals, and housing paid for by Army.

301  Small Unit Leadership (3)
Prereq: perm. Study of basic leadership principles, the Army decision-making process, small unit tactics, and required individual skills. Course includes intrinsic leadership practical exercises. A 2-hr-a-week lab, three 1-hr sessions of physical training a week, and a required weekend field training exercise are required parts of the course.

302  Small Unit Leadership and Operations (3)
Prereq: 301. Continuation of 301 developing from squad to platoon level organization and tactics, as well as an increased complexity in leadership positions. Labs, physical training, and a field training exercise are required as part of the course.

303  Small Unit Operations (3)
Prereq: 302. Continuation of PLT level operations with an increased emphasis on the dynamics of leadership to include the ethical decision-making process and the laws of war. The course also makes final preparations for the student to attend their summer training. Labs, physical training, and a field training exercise are required as part of the course.

310A  Advanced Leadership Laboratory (1)
Prereq: enrollment in 301. (fall) Designed to allow you to actually practice what is taught in the classroom by using a hands-on approach.

310B  Advanced Leadership Laboratory (1)

310C  Advanced Leadership Laboratory (1)
Prereq: enrollment in 303. (spring) Continuation of 310A-B. See 310A for description.

330  National Advanced Leadership Camp (4)
Prereq: 303. 32-day field training session conducted at Ft. Lewis, Washington. Exposure to barracks life and daily leadership activities of future commissioned officers in field and garrison. Transportation to and from camp, uniforms, meals, and lodging paid for by the Army.

401  Military Leadership, Management, and Ethics (3)
Prereq: 303. Provides opportunity to plan, conduct, and evaluate activities of the Army cadet organization. Assesses organizational cohesion and develop strategies to improve it. Develop confidence in skills to lead people, manage resources, and plan and execute complex small-organization operations. Teaches application of various Army policies and programs. Two hours and a required Leadership Lab, MSC 410, plus participation in three 1-hr sessions for personal and organizational physical fitness.

402  Military Leadership, Management, Ethics, and Law (3)
Prereq: 401. Continuation of 401. Increased emphasis on critical thinking skills and ability to quickly identify and resolve complex leadership issues.

403  Transition from Cadet to Lieutenant (3)
Prereq: 402. (spring) U.S. in contemporary world scene. Includes study of other major factors in the world arena.

410A  Advanced Leadership Laboratory (1)
Prereq: enrollment in 401. (fall) Allows you to plan and conduct training events such as drill and ceremony and land navigation.

410B  Advanced Leadership Laboratory (1)
Prereq: enrollment in 402. (winter) See 410A for description.

410C  Advanced Leadership Laboratory (1)
Prereq: enrollment in 403. (spring) See 410A for description.

490  Special Problems (1-5, max 15)
Prereq: perm. Provides continuing military education on individual basis. Provides advanced and specialized training depending upon needs of individual and department.

Music (MUS)

Applied Music
Fee for private instruction registration for all applied music (piano, voice, organ, strings, woodwind, brass, percussion) is $100 (MUS 340-358).

Prereq for class voice, piano, guitar, and all instrumental methods courses are $225. (MUS 141A, 142A, 143A, 147A, 148A, 149A, 165A, 166A, 182, 261 A-B, and 263 A-K)

Fees for music computer courses are $40 (MUS 178 and 178A)

Note: A description of the proficiency requirements for applied music may be obtained from the School of Music.

090  Performance Laboratory (0)
Required of all undergraduate music majors.

141  Class Piano (2)
Prereq: music major.

141A  Class Piano (2)
Prereq: nonmusic major. Cremaschi.

142  Class Piano (2)
Prereq: 141, music major. Continuation of 141.

142A  Class Piano (2)
Prereq: 141A, nonmusic major. Cremaschi. Continuation of 141A.

143  Class Piano (2)
Prereq: perm, 142, music major. Continuation of 141 and 142.

143A  Class Piano (2)
Prereq: 142A, nonmusic major. A. Cremaschi. Continuation of 142A.

147  Class Voice (2)
Prereq: music major. For students enrolling in beginning voice.

147A  Class Voice (2)
Prereq: nonmusic major. Beginning instruction in voice for nonmusic majors.

148  Class Voice (2)
Prereq: 147. Continuation of 147.

148A  Class Voice (2)
Prereq: 147A, nonmusic major. (winter) Continuation of 147.

149  Class Voice (2)

149A  Class Voice (2)
Prereq: 148A, nonmusic major. (spring) Continuation of 148A.

165  Class Folk Guitar (2)
Prereq: music major. S. Boyle. Introduction to guitar fundamentals including the playing of chords and melodies using varied systems of notation, basic strumming and finger-picking techniques, and tuning. Skill development in the use of guitar in vocal accompaniment and early solo work.
### Courses / Music

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<th>Course Title</th>
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<td>Class Folk Guitar (2)</td>
<td>Prereq: nonmusic major. See 165 for further description.</td>
</tr>
<tr>
<td>166</td>
<td>Class Folk Guitar (2)</td>
<td>Prereq: 165. Continuation of 165.</td>
</tr>
<tr>
<td>166A</td>
<td>Class Folk Guitar (2)</td>
<td>Prereq: 165A. S.Boyle. Continuation of 165A.</td>
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<tr>
<td>241</td>
<td>Class Piano (2)</td>
<td>Prereq: music major, 143 with minimum grade of C, or perm.</td>
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<tr>
<td>242</td>
<td>Class Piano (2)</td>
<td>Prereq: 241, music major. Continuation of 241.</td>
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<tr>
<td>244D</td>
<td>Community Band (2)</td>
<td>Prereq: audition. A wide variety of music literature, including marches, overtures, and musicals is studied and performed both on and off campus under both a permanent and guest conductor.</td>
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<td>251A</td>
<td>Marching Band (2)</td>
<td>Prereq: audition. R. Suk.</td>
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<td>251C</td>
<td>University Band (1)</td>
<td>Prereq: audition. R. Suk.</td>
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<td>251D</td>
<td>Varsity Band (1)</td>
<td>Prereq: audition. R. Suk.</td>
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<td>Concert Band (1)</td>
<td>Prereq: audition. R. Suk.</td>
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<td>252A</td>
<td>Symphony Orchestra (2)</td>
<td>Prereq: audition. A. George.</td>
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<td>252B</td>
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<td>253A</td>
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<td>Prereq: audition. P. Jarjisian.</td>
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<td>253B</td>
<td>Choral Union (1)</td>
<td>Prereq: audition. P. Jarjisian.</td>
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<tr>
<td>253C</td>
<td>Opera Theater (1–4)</td>
<td>Prereq: audition. W. Mouat.</td>
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<tr>
<td>253E</td>
<td>Women’s Chorale (1)</td>
<td>Prereq: audition. P. Jarjisian.</td>
</tr>
<tr>
<td>254A</td>
<td>Chamber Music, Strings (1)</td>
<td>Prereq: strings. Participation in playing of standard string chamber literature.</td>
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<td>254B</td>
<td>Chamber Music, Woodwinds (1)</td>
<td>Participation in playing of standard woodwind chamber literature.</td>
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<tr>
<td>254C</td>
<td>Chamber Music, Brass (1)</td>
<td>Participation in playing of standard brass chamber literature.</td>
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<tr>
<td>254D</td>
<td>Chamber Music, Percussion (1)</td>
<td>Participation in playing of standard percussion chamber literature.</td>
</tr>
<tr>
<td>254E</td>
<td>Chamber Music, Contemporary (1)</td>
<td>New music ensemble. Participation in performing contemporary chamber music for various ensembles of instruments and voices.</td>
</tr>
<tr>
<td>254F</td>
<td>Chamber Music, Piano (1)</td>
<td>Participation in playing of standard piano chamber literature.</td>
</tr>
<tr>
<td>255B</td>
<td>Percussion Ensemble (1)</td>
<td>R. Braun.</td>
</tr>
<tr>
<td>255C</td>
<td>Trombone Choir (1)</td>
<td>C. Hayes.</td>
</tr>
<tr>
<td>343</td>
<td>Organ (1–4)</td>
<td>P. Barte.</td>
</tr>
<tr>
<td>343A</td>
<td>Harpsichord (1–4)</td>
<td>P. Barte.</td>
</tr>
<tr>
<td>344</td>
<td>Violin (1–4)</td>
<td>M. Bagley.</td>
</tr>
<tr>
<td>346</td>
<td>Violoncello (1–4)</td>
<td>M. Carrera.</td>
</tr>
<tr>
<td>347</td>
<td>Double Bass (1–4)</td>
<td>D. Messina.</td>
</tr>
<tr>
<td>348</td>
<td>Flute (1–4)</td>
<td>A. Brown.</td>
</tr>
<tr>
<td>349</td>
<td>Oboe (1–4)</td>
<td>D. Conaty.</td>
</tr>
<tr>
<td>350</td>
<td>Bassoon (1–4)</td>
<td>E. Stombberg.</td>
</tr>
<tr>
<td>351</td>
<td>Clarinet (1–4)</td>
<td>R. Rischin.</td>
</tr>
<tr>
<td>352</td>
<td>Saxophone (1–4)</td>
<td>M. James.</td>
</tr>
<tr>
<td>353</td>
<td>Trumpet (1–4)</td>
<td>J. Schlabach.</td>
</tr>
<tr>
<td>354</td>
<td>Horn (1–4)</td>
<td>S. Smith.</td>
</tr>
<tr>
<td>355</td>
<td>Euphonium (1–4)</td>
<td>J. Smith.</td>
</tr>
<tr>
<td>356</td>
<td>Trombone (1–4)</td>
<td>C. Hayes.</td>
</tr>
<tr>
<td>357</td>
<td>Tuba (1–4)</td>
<td>J. Smith.</td>
</tr>
<tr>
<td>358</td>
<td>Percussion (1–4)</td>
<td>R. Braun.</td>
</tr>
<tr>
<td>359</td>
<td>Class Piano (2)</td>
<td>Prereq: 243 with minimum grade of C, and 103.</td>
</tr>
<tr>
<td>360</td>
<td>Class Piano (2)</td>
<td>Prereq: 359.</td>
</tr>
<tr>
<td>361</td>
<td>Class Piano (2)</td>
<td>Prereq: 360.</td>
</tr>
<tr>
<td>370</td>
<td>Practicum in Music (1–2, max 12)</td>
<td>Provides practical experiences such as supervised private and/or small group teaching, seminars in instrument repair, small touring ensembles, and pit orchestra performance. May be repeated.</td>
</tr>
<tr>
<td>372</td>
<td>Advanced Functional Skills (2)</td>
<td>Prereq: jr in piano. (full) instruction to provide greater facility in handling basic functional keyboard skills. Emphasis on transferring these skills to actual situations encountered as music educators and/or music therapists.</td>
</tr>
<tr>
<td>375A</td>
<td>English Diction for Singers (1)</td>
<td>Stresses using vocal repertoire, correct pronunciation for singing.</td>
</tr>
<tr>
<td>375B</td>
<td>Italian Diction for Singers (1)</td>
<td>Prereq: ITAL 111. See 375A for description.</td>
</tr>
<tr>
<td>375C</td>
<td>German Diction for Singers (1)</td>
<td>Prereq: GER 111. See 375A for description.</td>
</tr>
<tr>
<td>375D</td>
<td>French Diction for Singers (1)</td>
<td>Prereq: FRN 111. See 375A for description.</td>
</tr>
<tr>
<td>377A</td>
<td>Jazz Improvisation I (2)</td>
<td>Prereq: C or better in 103. Bastin. Learning and applying through improvisation the Ionian, Dorian, and Mixolydian modes, the ii-V7-I progression, and culminating with a final project utilizing the song form.</td>
</tr>
<tr>
<td>377B</td>
<td>Jazz Improvisation II (2)</td>
<td>Prereq: C or better in 377A. Bastin. Learning and applying through improvisation the whole tone, diminished and blues scales, the Aeolian and Locution modes, the ii-V7-I progression, and culminating with a final project utilizing blues form.</td>
</tr>
<tr>
<td>379</td>
<td>Performance Preparation (2)</td>
<td>Assistance in developing strategies for preparing physically and psychologically to achieve maximum potential in musical performance.</td>
</tr>
<tr>
<td>450</td>
<td>Accompanying (1, max 3)</td>
<td>Basic problems in accompanying vocalists and instrumentalists—rehearsal techniques, ensemble, pedaling, balance, etc. May be repeated.</td>
</tr>
<tr>
<td>455</td>
<td>Basic Conducting (3)</td>
<td>Prereq: 203, 205. P. Jarjisian, J. Climer. Basic beat patterns, technique of baton, and use of left hand. Experience in conducting choral and small instrumental ensembles in works suitable for school groups.</td>
</tr>
<tr>
<td>456A</td>
<td>Instrumental Conducting (3)</td>
<td>Prereq: 205, 455. P. Jarjisian. Specialized conducting techniques for choral groups, including experience in conducting works suitable for high school and college groups.</td>
</tr>
<tr>
<td>456B</td>
<td>Choral Conducting (3)</td>
<td>Prereq: 205, 455. P. Jarjisian. Specialized conducting techniques for choral groups, including experience in conducting works suitable for high school and college groups.</td>
</tr>
<tr>
<td>457A</td>
<td>Solo Repertoire of String Instruments (1)</td>
<td>Prereq: 323. Survey of student’s major performance instrument literature.</td>
</tr>
<tr>
<td>457B</td>
<td>Solo Repertoire of Woodwind Instruments (1)</td>
<td>Prereq: 323. See 457A for description.</td>
</tr>
<tr>
<td>457C</td>
<td>Solo Repertoire of Brass Instruments (1)</td>
<td>Prereq: 323. See 457A for description.</td>
</tr>
<tr>
<td>457D</td>
<td>Solo Repertoire of Vocal Music (1)</td>
<td>Prereq: 323. See 457A for description.</td>
</tr>
<tr>
<td>457F</td>
<td>Solo Repertoire of Percussion Instruments (1)</td>
<td>Prereq: 323. See 457A for description.</td>
</tr>
<tr>
<td>457G</td>
<td>Early Keyboard Repertoire, 1600 through 1750 (2)</td>
<td>Prereq: 125. A comprehensive study of the keyboard repertoire from 1600 through 1750, including major works of Baroque composers.</td>
</tr>
<tr>
<td>457K</td>
<td>Classical and Romantic Piano Repertoire (2)</td>
<td>Prereq: 125. A comprehensive study of the piano repertoire from 1750 through 1900, including major works of classical and romantic composers.</td>
</tr>
<tr>
<td>457L</td>
<td>Twentieth Century Piano Repertoire (2)</td>
<td>Prereq: 125. Twentieth century piano repertoire beginning with works from the impressionistic Period and including major works of composers to the present.</td>
</tr>
<tr>
<td>458A</td>
<td>String Instrument Pedagogy (2)</td>
<td>Teaching techniques and use of selected materials for various levels of ability. Includes practical experience in teaching string instruments.</td>
</tr>
<tr>
<td>458B</td>
<td>Woodwind Instrument Pedagogy (2)</td>
<td>See 458A for description—woodwind instruments.</td>
</tr>
<tr>
<td>458C</td>
<td>Brass Instrument Pedagogy (2)</td>
<td>See 458A for description—brass instruments.</td>
</tr>
<tr>
<td>458D</td>
<td>Vocal Pedagogy (2)</td>
<td>See 458A for description—voice.</td>
</tr>
<tr>
<td>458E</td>
<td>Class Piano Pedagogy (2)</td>
<td>M. Stewart. Practical teaching techniques unique to class piano instruction, particularly in...</td>
</tr>
</tbody>
</table>
Courses / Music
178A Computer Skills for Musicians, Nonmajors (2)
See 178 for description.

179 Technology for Music Educators (2)
Prereq: 178. Provides the prospective music educator with technology skills, knowledge of software, and methods for using technology in the music classroom.

201 Music Theory IV (3)
Prereq: 103 with a minimum grade of C. Harmonic and contrapuntal practices of 18th, 19th, and 20th centuries, including structural analysis of small and large forms.

202 Music Theory V (3)
Prereq: 201 with a minimum grade of C. Continuation of 201. See 201 for description.

203 Music Theory VI (3)
Prereq: 202 with a minimum grade of C. Continuation of 201 and 202. See 201 for description.

204 Dictation and Sight Singing IV (2)
Prereq: 106 with a minimum grade of C. Should be taken concurrently with 201.

205 Dictation and Sight Singing V (2)
Prereq: 204 with a minimum grade of C. Continuation of 204.

206 Dictation and Sight Singing VI (2)
Prereq: 205 with a minimum grade of C. Continuation of 204 and 205. See 204 for description.

304 Instrumentation (3)
Prereq: 203. (Fall) Technical characteristics of instruments of band and orchestra. Arranging for small ensembles.

305 Orchestration I (3)
Prereq: 303. 304. (Winter) Scoring for instrumental ensembles with emphasis on intra- and cross-choir scoring. Writing of transcriptions and score reductions.

306 Orchestration II (3)
Prereq: 305. (Spring) Continuation of 305. See 305 for description.

307 Choral Arranging (3)
Prereq: 203. Arranging for standard vocal ensembles with and without accompaniment.

308 Composition, Nonmajor (2)
Prereq: Non-composition major; 203, 206. Introduction to 20th-century compositional techniques. Writing smaller compositions.

309 Composition, Major (2)
Prereq: Composition major. See 308 for description.

402A Styles I (3)
Prereq: 203 with minimum grade of C. (offered alternate years) Analysis of Medieval and Renaissance music.

402B Styles II (3)
Prereq: 203 with minimum grade of C. (offered alternate years) Analysis of 19th century music.

402C Styles III (3)
Prereq: 203 with minimum grade of C. (offered alternate years) Analysis of 20th-century music.

405A Jazz Theory I (3)
Prereq: 203, 206, keyboard skills as determined by instructor. Harmonic vocabulary, notational systems, and chord progressions in traditional jazz.

405B Jazz Theory II (3)
Prereq: 405A. Continuation of 405A. See 405A for description.

407A Counterpoint I (3)
Prereq: 203, 205. (offered alternate years) Analysis and composition in sacred style of the 16th century.

407B Counterpoint II (3)
Prereq: 203, 205. (offered alternate years) Analysis and composition of 18th-century contrapuntal forms.

407C Counterpoint III (3)
Prereq: 203, 205. (offered alternate years) Continuation of 407B.

410B Composition (2)

413 Introduction to Electronic Music (2)
Prereq: 102A, 141A, or music major. History, theories, techniques, and aesthetics of electronic music.

414 Senior Thesis (2)
Prereq: sr. Preparation of senior project.

415 Microcomputer Applications in Music Production (3)
Prereq: 413. Using various MIDI and digital audio applications running on microcomputers to produce a series of small projects in electronic music.

416 Project in Electronic Music (3)
Prereq: 415. Creating a major project using MIDI synthesizers and software and/or digital audio.

416A Advanced Projects in Electronic Music (3)
Prereq: approved project proposal, 416. A project proposal must be submitted to and approved by the instructor prior to enrolling in this course. An electronic music composition will be produced for public performance.

416B Advanced Recording Studio Techniques (4)
Prereq: 416. Instruction in operating a 16-track recording studio. Topics including advanced mixing techniques, sound processing, mixing, and SMPTE time code synchronization on a 16-track recorder.

417 Advanced Digital Synthesis (4)
Prereq: 415. Concepts of digital sound synthesis primarily using the Synclavier system. Topics include advanced FM synthesis, additive synthesis, sampling, sequencing, and SMPTE time code synchronization on the Synclavier.

417A Advanced Digital Synthesis and Multitrack Projects (4)
Prereq: approved project proposal, 416B, 417. A project proposal must be submitted to and approved by the instructor prior to enrolling in this course. Supervision and guidance for working on creative electronic projects using the Synclavier and the 16-track recording studio.

Music Therapy

180 Music Therapy Practicum I (1–2)
Prereq: fr in music therapy. Selected field experience in approved clinical facilities; field evaluation of student.

181 Introduction to Music Therapy (3)
(fall) Introduction to clinical practice of music therapy; clinical observation.

182 Recreational Music Instruments and Materials (3)
Prereq: music major. (Spring) Guitar and nonsymphonic classroom instruments; special instrumental methods for disabled.

280 Music Therapy Practicum II (1–3)
Prereq: soph in music therapy. Selected field experiences in approved clinical facilities; field evaluation of student.

281 Observation, Evaluation, and Research in Music Therapy (3)
Prereq: soph. (Spring) Observation and evaluation skill development through classroom videotape, and field data collection and analysis; tests and evaluations; research methods and their application to clinical investigations. 2 lec, 1 lab.

282 Music Therapy Activities for Clients and Clinic (3)
Prereq: soph. (Winter) Development of skills in treatment planning and application including activity design and analysis for problems in all clinical areas.

380 Music Therapy Practicum III (1–3)
Prereq: jr standing in music therapy. Selected field experiences in approved clinical facilities; field evaluation of student.

381 Psychological Foundations of Music (3)
Prereq: jr standing in music therapy/music education. Basic study of acoustics, ear and hearing, and psycho-socio-physiological process involved in music behavior.

382 Psychological Foundations of Music II (3)
Prereq: 381. Theory of music therapy, survey of current literature and trends in music therapy; influence of music on behavior, psychology, emotions, learning, and work performance; experimental research required.

80 Music Therapy Practicum IV (1–3)
Prereq: sr in music therapy. Selected field experience in approved clinical facilities; field evaluation of student.

481 Music Therapy Principles and Techniques I (3)
Prereq: jr standing in music therapy. Problems of exceptional children and therapist strategies and techniques for remediation; terminology; treatment settings.

482 Music Therapy Principles and Techniques II (3)
Prereq: 481. Problems in psychiatry and rehabilitation; therapist strategies and techniques for remediation; terminology; treatment settings; traditional and current psycho-therapeutic and behavioral approaches.

483 Music Therapy Principles and Techniques III (3)
Prereq: 482. Program development process for selected clinical populations; administration of music therapy program.

489 Clinical Training in Music Therapy (1)
Prereq: 483. Six months as full-time music therapy intern at AMTA-approved clinical training facility following completion of sr yr.

Nursing

Associate’s Degree Program (NURS)
The following courses for the A.A.S. in nursing are available on the Chillicothe and Zanesville campuses:

110 Foundations of Nursing I (4)
Prereq: admission to AD nursing program. Designed to introduce the beginning nursing student to the concepts that form the foundation of associate degree nursing. Students are introduced to nursing as a caring profession. Opportunities will be provided for the student, as a beginning nursing care provider, to develop skills in critical thinking through the application of the nursing process and in the implementation of selected nursing techniques. Emphasis will be placed on the three roles of the AD nurse as they relate to the nursing care of the adult.

111 Foundations of Nursing II (4)
Prereq: Cor better in 110, 115, 120, 130; BIOS 130; CHEM 121. Continuation of 110 with increased emphasis on integrating the concepts of caring, critical thinking, and the three roles of the AD nurse. The nursing process continues to be the framework for assisting clients throughout the lifespan.

115 Communication in Nursing (1)
Prereq: admission to AD nursing program. Explores the concepts of effective communication and the application of the teaming process with clients across the lifespan. A caring therapeutic nurse/patient relationship depends upon effective communication. As a teacher, the nurse addresses the nursing roles of communicator, direct patient care provider, and manager of clients with safety, physiological, psychosocial, or health promotion/learning
needs. Critical thinking skills and effective communication are required by the nurse to successfully meet the learning needs of the client.

120 Assessment of the Middle and Older Adult (2)
Prereq: admission to AD nursing program. Focuses on the assessment of environmental safety, level of physiological and psychosocial integrity, and health promotion and maintenance practices of the middle to older adult. Emphasis is placed on establishing a caring relationship between the client, family, and nurse. The nurse will use critical thinking skills to promote health and well-being.

212 Health Alterations III (7)
Prereq: C or better in 210, 212; BIOS 131; HCFN 128. Focuses on the roles of the AD nurse as a member within the discipline of nursing, provider of care, and manager of care for infants, children, and adolescents with health alterations. Emphasis will be placed on establishing a caring relationship between the child, family, and nurse. The nurse will use critical thinking skills to promote health and well-being.

220 Maternal, Newborn, and Women's Health Alterations (5)
Prereq: C or better in 111, 121, 131; BIOS 131; HCFN 128. Emphasizes the use of critical thinking and caring as a foundation for the AD nurse in delivering care to the childbearing client and to women with alterations in reproductive health. The student will function as a member within the discipline of nursing as a provider/manager of care and promoter of health and well-being.

230 Mental Health Alterations (5)
Prereq: C or better in 111, 121, 131; BIOS 131; HCFN 128. Focuses on the roles of the AD nurse as a member within the discipline of nursing and as a provider and manager of care for children, adolescents, and adults with mental and emotional problems. Emphasis will be placed on establishing a therapeutic relationship to assist individuals and families to achieve adaptation, recovery, and growth by working through alterations in psychosocial needs. The nurse will use critical thinking skills to promote mental health.

240 Child and Adolescent Health Alterations (5)
Prereq: C or better in 111, 121, 131; BIOS 131; HCFN 128. Focuses on the roles of the AD nurse as a member within the discipline of nursing, provider of care, and manager of care in providing care for infants, children, and adolescents with health alterations. Emphasis will be placed on establishing a caring relationship between the child, family, and nurse. The nurse will use collaboration, communication, and critical thinking skills to promote health and well-being.

260 Transition to Nursing Practice (10)
Prereq: C or better in 212, 220, 230, 240; SOC 101. Focuses on facilitating a transition to entry-level nursing. This capstone course further refines critical thinking, caring of self and others, and the roles of the nurse in providing care across the lifespan. Topics such as client care environment, managing client, managing others, and professional development will be included.

290A-Z Current Issues in Nursing (1-5, max 15)
Prereq: perm. Series of elective short courses for nursing students at OU-Zanesville. RNs and allied health professionals from the local area may enroll.

291A-D Current Issues in Nursing (1-5, max 5)
Prereq: perm. See 290A-Z for description.

Baccalaureate Program for RNs (NRSE)

295 Introduction to Baccalaureate Nursing Education (1)
Prereq: B.S.N. major. The philosophy, conceptual framework, and curriculum of the Ohio University School of Nursing. Technical and professional levels of nursing education compared. 1 lec.

300 Transitions in Nursing (5)
Prereq: B.S.N. major or student nurse. Focus on issues related to transition from technical to professional nursing. History and development of nursing as a profession; professional practice and the nursing process; nursing theories; nursing research; general systems theory; role theory; Ohio University’s School of Nursing’s philosophy and conceptual framework. 5 lec.

303 Health and Safety in Early Childhood (3)
Prereq: HCCF 160 or PSY 273. Health and safety knowledge and skills needed in working with children under the age of five years. Includes communicable disease, first aid, environmental safety, and abuse content. 3 lec.

305 Introduction to School Nursing (4)
Prereq: 300. Historical overview of school nursing in the U.S., plus current responsibilities of school nurse in implementing a school health program. 4 lec.

310 Health Appraisal I (4)
Prereq: 300 or concurrent. Focus on developing cephalo-caudal nursing assessment skills and the ability to draw valid inferences from the data collected. 3 lec, 3 lab.

315 Pain Management for Nursing (4)
Prereq: licensed RN, CS 120 or equivalent. Assists RNs in moving from historical perspective of pain management to current concepts underlying the pathophysiology and treatment of pain. Pharmocological and nonpharmacological approaches to acute and chronic pain management addressed from holistic client and family perspectives. This course may be taught on the Internet. 4 lec.

325 Health Interventions in Nursing (5)
Prereq: 300 or concurrent. Concept of health and its relationship to nursing intervention strategies, Theoretical and practical aspects of teaching/ learning and counseling emphasized. 5 lec.

330 Family Nursing (4)
Prereq: 300 or concurrent. Focus on nursing care of family system throughout the life cycle. Synthesis of family theory and application of the nursing process to families. 3 lec, 3 lab.

335 Ethical and Legal Issues in Nursing (4)
Prereq: 300 or concurrent. Analysis of the relationships between ethics and the law with close attention given to the issues and decisions that impact professional nursing practice. 4 lec.

340 Community Health Nursing (4)
Prereq: 330 or concurrent. Nursing care of aggregate systems within a community. Topics include community health nursing roles and basic concepts of community health. Analysis of population focused care through the nursing process, collaboration, and interdisciplinary skills. 3 lec., 3 lab.

405 Research: Critique and Methodology (4)
Prereq: 340A or concurrent; PSY 120 or 221 or MATH 251 or QBA 201 Research in nursing practice. Topics include interrelationships among theory, practice and research; theory and science in nursing; nursing practice models; steps in the research process; critiquing of current research; development of a research proposal. 4 lec.

415 Restorative Nursing (4)
Prereq: 405 or concurrent. Nursing care of individuals, families, and groups experiencing alterations in health and the responses to those changes throughout the life cycle. Concepts addressed include loss, pain, crisis, coping, quality of life. Development of critical thinking and problem solving. 4 lec.

416 Management Issues in Nursing (4)
Prereq: 300 or concurrent. Nursing management through use of a systems approach. Leadership models and behavior at various organizational levels discussed. Critical management strategies introduced. 4 lec.

425 Clinical Applications in Nursing (4)
Prereq: 415A. Examination of selected nursing situations and independent clinical professional nursing roles. 3 lec, 3 lab.
Courses / Nursing

122  **Keyboarding II** (4)  
Prereq: 121. Emphasis on formatting problems and keyboarding speed building. Production work involves tabulations, reports, correspondence, and business forms.

123  **Keyboarding III** (4)  
Prereq: 122. Advanced keyboarding problems, techniques, knowledge, and skills involved in production keyboarding work using computers. Designed to aid career maximum in production.

130  **Business Communication I (3–4)**  
Basic English grammar review with emphasis on word usage, sentence structure, paragraph development, capitalization, and punctuation for more effective business in production.

141L  **Legal Terminology** (2)  
Prereq: 121. Intensive course of study in legal terminology and vocabulary including definitions, usage, derivations, and spelling.

141M  **Medical Terminology** (2)  
Prereq: 121. Structure of medical words and terms. Emphasis on spelling and defining commonly used prefixes, suffixes, root words, and their combining forms.

171  **Administrative Procedures I (3–4)**  
Prereq: 121. Enchantment of skills as they relate to the world of work.

171L  **Legal Support and Procedures I (3)**  
Prereq: 121. Enhancement of skills as they relate to the world of legal work.

171M  **Medical Support and Procedures I (3)**  
Prereq: 121. Enhancement of skills as they relate to the world of medical work.

172  **Administrative Procedures II (4)**  
Prereq: 171. Continuation of 171. Instruction in current office practices as well as critical thinking and problem solving skills, including business protocol, professional development, telecommunications, and experiences in general office work expectations.

172L  **Legal Support and Procedures II (3)**  
Prereq: 171L. Emphasizes machine transcription utilizing complete production units concerning legal correspondence and documents.

172M  **Medical Support and Procedures II (3)**  
Prereq: 171M. Emphasizes machine transcription utilizing complete production units concerning medical correspondence and documents, such as cases histories, articles, and hospital reports.

189  **Independent Study (1–5, max 10)**  
Prereq: perm. Studies in selected subject areas related to office technology field. May be repeated up to 5 credit hours.

200  **Desktop Publishing I (3)**  
Prereq: 121 recommended. Develops skill in using desktop publishing software. Covers publishing information, graphic design basics, and will prepare students to produce newsletters, brochures, catalogs, etc., that are of professional quality.

201  **Desktop Publishing II (3)**  

221  **Diction/Transcription (4)**  
Prereq: 121 and 130. Development of machine transcription skills for taped dictation.

225  **Communication Processing I (3–4)**  
Prereq: 121 or concurrent. Introduction to professional communication processing. Emphasis will vary by campus.

226  **Communication Processing II (3–4)**  
Prereq: 225. Continuation of 225. Emphasizes advanced applications.

227  **Communication Processing III (3)**  
Prereq: 226. Designed to introduce students to a variety of work situations, including integrated hardware and software evaluation and analysis—using the microcomputer.

230  **Business Communication II (4)**  
Prereq: 130 or ENG 150 or higher placement. Extensive and detailed practice in written communication for business, industry, and professions. Involves composition of letters, memoranda, and reports.

231  **Business Calculations (4)**  
Prereq: MATH 101, 102, or higher placement. Practical mathematical calculations typical of a business situation. Concentration on problem-solving techniques necessary to perform calculations accurately and efficiently.

248  **Administration of Record Systems (3)**  
Controlling cost and improving effectiveness of records and information management within business enterprises. Includes control of record creation, maintenance, and disposition through systems analysis; forms management, protection methods.

258  **Stress Management for Office Personnel (3)**  
Involves recognition of stress, how to handle stress within yourself, how to assist office personnel in dealing with stress, and implications of time in its relationship to stress.

267  **Office Supervision (4)**  
Prereq: 122, 172. Involves principles and practices of management of flow of information within enterprise. Includes basic management functions of planning, controlling, organizing, and coordinating as applied to office services, physical facilities, systems and procedures, work measurement and standards, and business information systems. Emphasis on matters of personnel.

268  **Information System Design (3)**  
Effective use of management techniques and equipment in meeting informational needs of business and industry. How to design organizational system utilizing feasibility studies, etc., and how to implement design.

288  **Information System Equipment Selection—Acquisition Seminar (2)**  
Remodeling or designing new facilities, including space management, as well as source, cost, and justification for special equipment and furniture. Use of consultants and feasibility studies reviewed.

290  **Seminar (4)**  
Prereq: perm. Special topics and problems encountered in field experience discussed. Opportunity to share ideas and experiences and to find possible answers to questions arising in actual working situations.

291  **Special Topics (1–5, max 10)**  
Prereq: perm. Projects concerning office technology field explored on one-to-one basis with instructor.

298  **Practicum in WIP Supervision (2)**  
Experiences in supervision of word/data processing labs or centers. Responsibilities include assisting WIP trainees, demonstrating equipment to classes/visitors, producing complex documents, designing forms, and learning/developing new systems.

299  **Internship (1–5, max 10)**  
Prereq: 225 and perm. Practical field experience or in-class office simulation.

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**Office Technology (OTEC)**

The following courses for the A.A.B. in office technology are available on the Chillicothe, Lancaster, and Southern campuses. Some elective courses are unique to a particular campus. Under University College, see the Colleges and Curricula section for the list of required courses.

121  **Keyboarding I (4)**  
Introduction to touch keyboarding system with emphasis on correct techniques, mastery of keyboard, typical business correspondence, tabulation, and reports.

**Ohio Program of Intensive English (OPIE)**

Credit hours listed for OPIE are not applicable to degree requirements. For English for nonnative speakers applicable to degree requirements, see ENG 150A, 151A in English under ENG 150, 151.

21  **Elementary Core Skills (12)**  
Prereq: perm. 12-hour core sequence in office of a full-time (20 hours/week) course in English as a second language for students at the elementary level whose ultimate aim is academic study.
Core Skills class focuses on basic grammar and communication skills. Writing sometimes included. Focus is on American English for effective communication both inside and outside the classroom.

22 Elementary Listening/Speaking (4)
Prereq: perm. This course is one component of full-time study of English as a second language for students at the elementary level whose ultimate aim is academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in listening and speaking.

23 Elementary Reading/Writing (4)
Prereq: perm. This course is one component of full-time study of English as a second language for students at the elementary level whose ultimate aim is academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in reading and vocabulary. Students build their reading skills by learning reading strategies and practicing with readings and exercises from the textbook. Students build their vocabulary by learning new words and learning to determine the meaning of words from context clues and word analyses. Students work to develop sentence-level writing skills and may begin practice writing simple paragraphs.

26 Intermediate Core Skills (12)
Prereq: perm. This course is a component of a full-time (20 hours/week) course in English as a second language for students aiming at academic study. Students at this level do not take academic courses. Paraphrase and writing competency is developed as students expand grammatical knowledge and explore the process of writing. Instruction and practice includes an introduction to the three-paragraph essay.

27 Intermediate Listening/Speaking (4)
Prereq: perm. This course is one component of full-time study of English as a second language for students at the intermediate level whose ultimate aim is academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in listening and speaking.

28 Intermediate Reading/Vocabulary (4)
Prereq: perm. This course is one component of full-time study of English as a second language for students at the intermediate level whose ultimate aim is academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in reading and vocabulary. Students build their reading skills by learning reading strategies and practicing with readings and exercises from the textbook. Students build their vocabulary by learning new words and learning to determine the meaning of words from context clues and word analysis. This course includes introduction and practice in using an English-only dictionary.

31 Advanced Core Skills A (12)
Prereq: perm. The Advanced Core Skills A is a 12-hour CORE component of a full-time (20 hours/week) course of study in English as a second language for students preparing for academic study in an American university. Students incorporate understanding of grammatical structures, appropriate vocabulary, and organization into formally developed essays. More emphasis is placed on rhetorical modes and developing editing skills. Reading comprehension and lexical skill development is emphasized along with the improvement of reading rate. Students learn to synthesize the various skills and strategies to which they have been exposed. Listening and speaking skill activities rely more heavily on small group and class discussions, and oral presentations.

33 Academic Listening/Note-taking/ Speaking (4)
Prereq: perm. This OPIE part-time level elective class aims to improve students’ oral listening, note-taking, and speaking skills needed for successful academic work. Class time is spent on listening to academic mini-lectures, note-taking, discussions, and oral presentations.

34 Academic Reading Skills (4)
Prereq: perm. Provides students with both an understanding of the reading process and intensive practice in developing advanced-level reading strategies and skills. Designed to improve reading comprehension, reading speed, academic vocabulary, and awareness of text structures and rhetorical patterns.

41 American Culture (4)
Prereq: perm. A general overview of American culture to increase awareness and understanding of the cultural values of the United States and other cultures. Provides cross-cultural activities for small group and class discussions, and topics for oral presentations, research, and writing projects. Academic English skill-building through reading, writing, listening and speaking activities, vocabulary study, summarizing, research and oral reports, and group activities.

42 Stories in the News (4)
Prereq: perm. Students in this four-hour per week course will work to improve reading, writing, listening, and speaking skills while they study and report on current events stories and b) contemporary world issues.

43 U.S. Cities: New York and Los Angeles (4)
Prereq: perm. Through instruction in the history and cultural geography of two U.S. cities: New York City and Los Angeles, students improve their academic English language skills in grammar, listening, and speaking. Students practice language skills through discussion, oral presentations, written comprehension, vocabulary learning, and completing reading logs. Students also learn and develop research skills by accessing and gathering information from a variety of sources.

44 Native Americans of the U.S. (4)
Prereq: perm. This course is designed to help students further develop all English language skills while learning about Native American history, culture, and current social and political issues. Students will gather information from a variety of sources including newspaper and magazine articles, the Internet, videotapes, guest speakers, and field trips; they will use this information in discussions, presentations and papers.

46 Ecology and the Environment (4)
Prereq: perm. This course will help students further develop all language skills as well as knowledge about local ecology and worldwide environmental issues. Students will gather information from a variety of sources including newspaper and magazine articles, the Internet, videotapes, guest speakers, and field trips; they will use this information in discussions, presentations and papers.

47 English through Music (4)
Prereq: perm. This course is a component of either full-time or part-time study of English as a second language for students whose ultimate aim is full-time academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in listening/speaking and reading while exploring American musical genres and American culture.

51 Academic Core Skills 1 (8)
Prereq: perm. Academic Core Skills 1 is a part-time integrated core in English as a Second Language for students who are also permitted to take one academic course. Eight hours of classroom instruction (two hours a day, four days a week) focus on the development of academic English language skills including reading, writing, study skills, and academic performance skills needed for success in an academic program in the U.S. Listening and speaking will also be addressed, and grammar will be addressed as needed.

52 Americans at Work (4)
Prereq: perm. This course focuses on improving students’ academic reading, composition, and presentation skills by introducing them to work as a cultural phenomenon, to the history of work in the U.S., and to American cultural values and beliefs about work.

53 Adventures in Mythology (4)
Prereq: perm. Students in this course will work on improving their academic reading, writing, listening, and speaking skills through simulated academic study of mythology.

54 Public Speaking (4)
Prereq: perm. The Public Speaking class develops speaking, listening, and presenting skills through discussion, demonstration, and intensive practice. This course is useful for both academic work and the workplace.

56 Academic Core Skills 2 (8)
Prereq: perm. Academic Core Skills 2 is a part-time integrated core in English as a Second Language for students who are also permitted to take one or two academic courses simultaneously. Eight hours of classroom instruction (two hours a day, four days a week) are designed to provide students with high-level language skills development, with a specific focus on academic reading and writing skills, as well as academic performance and study skills. Students also work on academic listening and speaking skills.

57 Pronunciation through Current Events (4)
Prereq: perm. This course will focus on improving the accuracy of students’ speaking abilities. Students will have the opportunity to learn and practice the individual sounds, rhythm, intonation, and stress associated with spontaneous and planned spoken English. In addition, students will study current issues through the use of news-related listening materials and class discussions. These discussions of current events will provide the primary means for student improvement by enabling students to practice speaking in a relevant and engaging context.

58 College Vocabulary (4)
Prereq: perm. This course is designed to engage students in improving their vocabulary and using it accurately and fluently for academic purposes.

61 Academic Core Skills 3 (8)
Prereq: perm. This course is a part-time support course in English as a Second Language for students who are also permitted to take two academic courses. Eight hours of classroom instruction (two hours a day, four days a week) are designed to provide students with high-level language skills development, with a specific focus on academic reading and writing skills, as well as academic performance and study skills.

62 Intercultural Communication (4)
Prereq: perm. This course focuses on improving students’ academic reading, composition, and presentation skills by introducing them to the fundamental concepts of intercultural communication and the problems of intercultural conflict.

64 Grammar (4)
Prereq: perm. Through this OPIE part-time level elective class, students will improve their ability to use a variety of grammatical patterns and structures to express original ideas, to edit written text, and to paraphrase, summarize, and synthesize information and ideas in order to perform extended academic tasks orally and in writing.
65 Composition (4)  
Prereq: perm. Through this OPIE part-time level elective class, students will increase their ability to write about familiar or prepared topics (up to three double-sided pages) with some precision and sufficient support. They will increase their ability to synthesize, summarize and paraphrase information from articles and academic texts. Students will perform various academic writing tasks such as writing persuasive essays and integrating paraphrased or summarized sources into a text. They will increase their ability to use a variety of grammatical patterns and structures to express original ideas in writing.

66 Issues through Film (4)  
Prereq: perm. Students in this five session per week course (ordinarily six hours of class) will work to improve speaking, reading, and writing as well as listening skills through a study of some of the traditional themes of USA cinema, and of movies that exemplify those themes.

67 Information Gathering (4)  
Prereq: perm. This OPIE part-time level elective class on Information Gathering (Techniques for Gathering and Evaluating Research Information) aims at providing international students with basic and, in some cases, advanced level information gathering and evaluation skills while at the same time improving their English language ability, particularly in the areas of reading, listening/speaking, and classroom interaction skills.

73 Introduction to Graduate Writing (3)  
Prereq: perm. This required course is for graduate students whose first language is not English and whose writing assessment reveals serious weakness in acceptable standard English for academic purposes. This course addresses critical reading and written communication of information for academic purposes—from the paragraph to the research paper. Grammatical and vocabulary issues are also addressed.

74 Advanced Graduate Writing (3)  
Prereq: perm. For graduate students whose first language is not English, this course addresses how to organize and present written information in acceptable academic English. Students practice discourse skills that include but are not limited to word choice clarity, emphasis, and subtleties of expression. Emphasis in writing will be emphasized. Practice in the critical discourse modes of graduate writing and editing are addressed.

82 Oral Communication in Graduate Studies (3)  
Prereq: perm. The goal of this course is to improve students' oral communication skills in English for success in the U.S. academic community. Students explore aspects of language, the U.S. academic culture, and strategies for effective discussion and presentation. Students will have the opportunity to learn and practice the individual sounds, rhythm, intonation, and stress associated with spontaneous and planned spoken English.

99 Special Studies (1-15)  
Prereq: perm. Individual or small group independent or tutorial study classes set up to meet the needs of students unable to participate in standard classes. Content and objectives taken from standard classes but adapted to the individual or small group independent or tutorial method of delivery.

Operations (OPN)  
298 Internship (1)  
Prereq: Perm. Internship experience that provides on-site exposure to general business operations and procedures. Intended for experiences following the freshman year.

310 Principles of Operations (4)  
Prereq: QBA 201 or PSY 221 or ECON 381 or COMS 301 or GEOG 271 or MATH 251. More than any other function, operations provides an organization with the capability to compete successfully in the global marketplace. With proper operations management, the firm can provide a product or service of higher quality in less time and at a cost less than the competition. Emphasis on conceptual understanding of the operations function and includes the following topics: product/service selection and design, facility location and layout, capacity, material and inventory management, quality, etc.

398 Internship (1-4)  
Prereq: perm. Internship experience that provides opportunities to learn and participate in day-to-day activities of a business concern for at least four consecutive weeks. Intended for experience following the sophomore year.

497 Independent Research (1-4)  
Prereq: written perm and perm. Independent research. Course content determined by professor and student.

498 Internship (1-4)  
Prereq: perm.

Philosophy (PHIL)  
101 Fundamentals of Philosophy (4) (2H)  
Survey of selected basic problems, concepts, and methods in philosophy.

120 Principles of Reasoning (4) (1M)  
Basic concepts of logic and techniques for judging validity of arguments introduced. System for symbolic arguments and deriving conclusions from premises employed. Some of following topics also covered: informal fallacies in reasoning, syllogistic or Aristotelian logic. Venn diagrams, truth tables. Most sections are traditional lecture/test format, some taught in computer-assisted format, others use self-paced approach.

130 Introduction to Ethics (4) (2H)  
Discussion of classic and/or modern philosophical views of human values, ideals, and morality. Provides introductory survey of some major problems, concepts, and results of ethics including selected philosophers of past and present.

216 Philosophy of Science Survey (3) (2H)  
Nontechnical study of the methods, credibility of hypotheses, methods of experimental inquiry; measurement; laws, theories and their role in explanation, concept formation.

231 Philosophy of Sport (4)  
Prereq: soph. Philosophical exploration into nature, meaning, purposes, values, and ideals of sport. Topics include goods and evils of competition, nature of sports experience, winning and losing, aesthetic and ethical dimensions of sport, ultimate athlete, scholastic athletics, philosophy of physical education, concept of sportsmanship, etc.

232 Philosophy of Art (4) (2H)  
Conceptual analysis of common assumptions, attitudes, theories, and ideas about arts, their criticism, and appreciation.

235 Business Ethics (4)  
Prereq: soph. Examination of moral reasoning as it pertains to institutions and practices of contemporary business. First half is devoted to basic ethical concepts and analysis of basis for acceptable ethical theory, investigation of role of government and society in their relationship to business. Second half examines case studies.

240 Social and Political Philosophy (4) (2H)  
Introduction to major philosophical theories concerning nature of social and political communities including those offered by Plato, Aquinas, Hobbes, Locke, Mill, and Rawls. Consideration of some significant specialized problems in social and political theory including distributive justice, civil disobedience, liberty, punishment, etc.

250 Philosophy of Mind (4)  
Mind-body problem; concept of self; human-machine relation; problem of other minds.

260 Philosophy of Religion (4) (2H)  
Problems in the nature of religion, existence and the nature of God; problem of evil, immortality, and religious language.

297 Philosophy Tutorial (1-10)  
Prereq: Honors Tutorial College students only. (fall) 1st-yr tutorial studies in philosophy.

298 Philosophy Tutorial (1-10)  
Prereq: Honors Tutorial College students only. (winter) 1st-yr tutorial studies in philosophy.

299 Philosophy Tutorial (1-10)  
Prereq: Honors Tutorial College students only. (spring) 1st-yr tutorial studies in philosophy.

310 History of Western Philosophy: Ancient (3) (4H)  
Significant ideas of representative Greek and Roman philosophers.

311 History of Western Philosophy: Medieval and Renaissance (5) (2H)  
Augustine to Bruno and Campanella.

312 History of Western Philosophy: Modern (5) (2H)  
17th and 18th century European philosophy.

314 19th Century European Philosophy (4) (2H)  
Subjects selected from French, German, and British philosophers of 19th century.

320 Symbolic Logic 1 (4)  
Techniques of modern symbolic logic.

330 Ethics (5)  
Study focusing on specific philosopher, or one type of ethical or value theory.

331 Moral Problems in Medicine (4)  
Prereq: soph. Philosophical investigation of complex moral problems engendered by modern medicine, e.g., death with dignity, human experimentation, allocation of scarce medical resources, birth defects, killing or letting die, informed consent, etc. Basic philosophical concepts underlying these problems explored, including autonomy, coercion, normality, naturalness, rights, justice, responsibility, personhood, etc.

332 Philosophy of Sex and Love (4)  
Prereq: jr. Philosophical and evaluative investigation into subject of sexual love and Western morality. Topics include roles and relations between sexes, abortion, monogamy, sexual perversion, homosexuality, promiscuity, adultery, semantics of sex, etc.

333 Philosophy of Literature (4)  
Prereq: jr. Examines nature of fictional literature as differentiated from other types of writing. Explores philosophical ideas within specific works of fiction, concentrating on problems of translating philosophical content into literary form, interpretation, belief, truth, and artistic integrity.

335 Environmental Ethics (4)  
How should we value nature? What is important about it, and why? Is it important to us because caring for nature advances our interests, or because it is valuable in its own right? Do animals have special claims upon us? Should our primary concern be for individual organisms, or for species? This course will aim at thinking through some of the questions that surround the idea of valuing the environment in which we live, and understanding possible views as to the source and nature of that value.

350 Philosophy of Culture (5)  
Philosophical studies of humankind as culture-creating being.
351 Philosophy of Language (4)
Prereq: 6 hrs in philosophy, including 120 or 320. Theories of meaning and reference and their philosophical significance, relations of meaning to verification and truth, and relationship between language and concepts.

358 Existentialism (4)
Prereq: 9 hrs in philosophy. Existential thought from Kierkegaard to Camus stressing such themes as freedom, existence, despair, authenticity, alienation, death, and revolt against system.

397T Philosophy Tutorial (1–10)
Prereq: Honors Tutorial college students only. (fall) 2nd-yr tutorial studies in philosophy.

398T Philosophy Tutorial (1–10)
Prereq: Honors Tutorial college students only. (winter) 2nd-yr tutorial studies in philosophy.

399T Philosophy Tutorial (1–10)
Prereq: Honors Tutorial college students only. (spring) 2nd-yr tutorial studies in philosophy.

412 Philosophy of Biology (5)
Prereq: BIOS 172 or PBIO 111. An analysis of such issues as the structure of theory in biology, whether biology differs from other sciences; whether species exist, natural selection, how taxonomy should be done, and whether biology raises any ethical issues.

413 Philosophy and Freudian Analysis (5)
Prereq: PSY 332 or 333. The philosophical and scientific presuppositions of Freudian psychology (including Freud’s methodology) will be identified and subjected to rigorous philosophical analysis. Freud’s early thought on hysteric, dreams, sexuality, and psychoanalysis will be emphasized. Recent attacks on the legitimacy of psychoanalysis will be examined. Alternative schemes for understanding human behavior will also be discussed.

414 Analytic Philosophy (5)
Prereq: 4 philosophy courses. Selected topics in contemporary Anglo-American philosophy.

416 Philosophy of Science (4)
Prereq: 3 philosophy courses. Selected problems in logic and methodology of sciences.

417 Philosophy of Logic (4)
Prereq: 320 or 502. Provides a survey of issues in the philosophy of logic. Topics include formal theories of truth, logical and semantical consequences, modal logic, conditionals, interpretations of quantifiers, and philosophical implications of Godel’s incompleteness theorems.

418 Plato (5)
Prereq: 4 philosophy courses, including 310.

419 Aristotle (5)
Prereq: 4 philosophy courses, including 310.

420 Symbolic Logic II (4)
Prereq: 320 or 502 or MATH 306 (or equiv.) or CS 300. Continuation of 320. Focuses on the completeness of first-order logic, Gödel’s incompleteness theorems, axiomatic set theory, and Cantor’s and Dedekind’s theories of the infinite.

425 Philosophical Problems in Quantum Physics (4)
Prereq: 3 courses from PHIL, PHYS, CHEM, MATH, CS, or engineering. Interpretation and paradoxes of quantum theory. Topics include the problem of measurement, the Bohr-Einstein debates, Schrodinger’s cat paradox, the Einstein-Podolsky-Rosen paradox, and Bell’s Theorem and its implications.

426 Philosophy of Space and Time (4)
Prereq: 3 courses from PHIL, PHYS, CHEM, MATH, CS, or engineering. In addition to classical topics, issues in the philosophy of space and time that have been greatly influenced by the emergence of Einstein’s theory of relativity will be discussed. Topics to be covered include the nature of geometry and its relation to the world, absolute vs. relational theories of space, time, and space-time, and Zeno’s paradoxes of motion and extension. Contemporary and classical thinkers will be examined.

427 Philosophy of Mathematics (4)
Prereq: 3 courses from PHIL, PHYS, CHEM, MATH, CS, or engineering. An in-depth examination of a major work in the philosophy of mathematics or of a particular concept that plays a central role in mathematical philosophy, such as the concept of number, the concept of mathematical proof, and the concept of the mathematical infinite.

428 Continental Rationalism (5)
Prereq: 4 philosophy courses, including 312. (alternate yrs) Descartes, Spinoza, Leibniz.

429 British Empiricism (5)
Prereq: 4 philosophy courses, including 312. (alternate yrs) Locke, Berkeley, Hume.

430 Contemporary Ethical Theory (5)
Prereq: 4 philosophy courses, including 130, 240, 330, or 442. Significant current literature in selected topics of moral, social, political, and legal philosophy.

431 History of Aesthetic Theory (5)
Prereq: 4 philosophy courses. Readings from Plato to Dewey and relation of these theories to selected arts and recent criticism.

432 Problems in Aesthetics (5)
Prereq: 9 hrs philosophy, literature, or art. A variety of philosophical issues surrounding the arts and aesthetics drawn from contemporary sources will be discussed. Topics include the nature of art, expression, interpretation, evaluation, and art and knowledge.

434 Metaethics (4)
Prereq: 4 philosophy courses including 130 or 240 or 430. The study of metaethics is the study of the nature of ethical or normative judgments. What are we doing when we make ethical judgments? Is it right to think that ethical judgments are capable of being true or false? If so, in virtue of what? We can also wonder about the nature of moral motivation. Does a judgment that something is morally wrong automatically entail that one has a motive not to do it? This course will be a survey of readings on these two questions.

438 Kant (5)
Prereq: 4 philosophy courses, including 312. Kant’s Critique of Pure Reason with attention given to his ethical theory.

440 Contemporary Social Philosophy (5)
Prereq: 330 or 240 or 442 and 3 other philosophy courses. Consideration of any number of various issues in contemporary, social, political, and legal philosophy. Possible topics: theories of distributive justice, culpability, causality and responsibility, legal and moral rights, etc.

442 Philosophy of Law (5)
Prereq: 3 philosophy courses or perm. Consideration of nature and justification of law and examination of some specialized topics in philosophy of law, including ascription of responsibility, civil disobedience, theories of punishment, liberty, etc.

444 Philosophy of Marxism (5)
Prereq: 4 philosophy courses. Philosophical inquiry into classical and contemporary Marxist thought stressing Marx, Engels, Lenin, Stalin, Mao, and several contemporary Marxist theorists such as Praxis group of Yugoslavia.

448 Pragmatism (5)
Prereq: 4 philosophy courses. Peirce, James, Dewey, and other American thinkers.

450 Theory of Knowledge (5)
Prereq: 4 philosophy courses, including 312. Critical examination of various views of what knowledge is and how it is attained.

451 Metaphysics (5)
Prereq: 4 philosophy courses, including 310 or 312. Discussion of basic philosophical issues such as: conceptual schemes and the external world, causation, universals, determinism and freedom, the nature of the mind, etc.

458 Contemporary European Philosophy (5)
Prereq: 4 philosophy courses, including 358 and 468. Phenomenology and existentialism as seen in Husserl, Heidegger, Scheler, Hartman, Dilthey, Cassirer, Gelser, Ingarden, Sartre, Camus, Marcel, Merleau-Ponty, and Ricoeur.

468 Phenomenology (5)
Prereq: 4 philosophy courses, including 312. Method and philosophy of phenomenological movement from Husserl to Merleau-Ponty.

475 Chinese Philosophy (5)
Prereq: 4 philosophy courses, including 371. Major Chinese philosophers and schools of thought from earliest times to present.

476 Indian Philosophy (5)
Prereq: 4 philosophy courses, including 370. Classical Hinduism.

477 Buddhist Philosophy (5)
Prereq: 4 courses, including 371. (on demand) Abhidharmika, Madhyamika, Yogacara, Zen, and other philosophical doctrines of Buddhism.

478 African Philosophy (5)
Prereq: Jr. Critical examination of the question, debated today among African philosophers, whether traditional African thought systems should be regarded and developed as philosophical systems. Includes survey of most significant of these thought systems.

490 Senior Seminar (3)
Prereq: sr, 310, 312, 320. Survey of selected subfields of philosophy. Required of all majors in philosophy during the senior year.

491 Seminar in Philosophy (1–15, max 15)
Prereq: 5 philosophy courses. Selected problems.

492 Applied Ethics (5)
Prereq: 2 courses from 130, 235, 330, 331, 430. An examination of the relationship of applied ethics to ethics as a branch of philosophy, a survey of major areas within applied ethics (medical, business, journalistic, etc.), and a consideration of selected problems in each area.

497 Independent Reading (1–9, max 12)
Prereq: perm of chair.

497T Philosophy Tutorial (1–10)
Prereq: Honors Tutorial College students only. (fall) 3rd-yr tutorial studies in philosophy.

498T Philosophy Tutorial (1–10)
Prereq: Honors Tutorial College students only. (winter) 3rd-yr tutorial studies in philosophy.

499 Senior Thesis (3–15)
Prereq: perm. Must be enrolled in each of three senior quarters to achieve honors in philosophy. Research and writing of long philosophical paper.

499T Philosophy Tutorial (1–10)
Prereq: Honors Tutorial College students only. (spring) 3rd-yr tutorial studies in philosophy.

Physical Education
See Recreation and Sport Sciences—Physical Education Activity
**Courses / Physical Therapy**

**Physical Therapy (PT)**

259A Introduction to Physical Therapy (2) (fall, spring). Designed for those students who are considering physical therapy as a career option. Presentations and topics of discussion will attempt to bring the student to an understanding of the physical therapy profession and the requirements for entry into the profession. 2 lec.

295B Introduction to Physical Therapy Clinical Experience (3)

For students who are considering physical therapy as a career, presentations and direct observation of evaluation and treatment of patients through Therapy Associates will help identify the various roles and settings for physical therapy. 1 lec, 4 lab.

400 Human Anatomy and Dissection (7)

Prereq: major. (summer) Detailed study of gross structures of extremities and body wall with emphasis on musculoskeletal, neuromuscular, respiratory, and cardiovascular structures. Relationships of structure to normal and abnormal function stressed. Includes surface inspection, palpation, and dissection of cadavers. (Same as PT 500.) 4 lec, 9 lab.

401 Functional Anatomy (3)

Prereq: C or better 400. (fall) Based on a foundation of gross anatomy structure, the course applies the principles of biomechanics to explore the relationship between structure and function. Emphasis on biomechanics, arthrokinematics, and muscle function of common activities. Study of palpation, goniometry, manual muscle testing. (Same as PT 501.) 2 lec, 2 lab.

402 Clinical Kinesiology (3)

Prereq: 401. (winter) Application of the principles of functional anatomy to the study of posture and gait. Applications of palpation, goniometry, and muscle testing skills to clinical situations. (Same as PT 502.) 2 lec, 3 lab.

404 Introduction to the Profession (2)

Prereq: major. (summer) Introduces the physical therapy profession and professional role expectations. Includes the history of the physical therapy as it relates to the professionalization process, including ethical and legal obligations, as well as student responsibilities. (Same as PT 504.) 2 lec.

405 Introduction to Clinical Education (2)

Prereq: 404. (fall) Introduces professional role responsibilities and patient problems involved in different clinical settings such as acute-care hospitals (inpatient and outpatient), outpatient clinics, rehab facilities, home health agencies, long-term care facilities, schools, and industrial settings. Basic communication skills for effective therapist-patient interaction. Prepares students for first clinical experiences. (Same as PT 505.) 2 lec.

406 Clinical Neurology for Physical Therapists (2)

Prereq: 400. (fall) Provides a link between basic neuroscience and the clinical manifestations which occur following a disruption of processes within the peripheral and central nervous systems. Focuses on the signs and symptoms of conditions treated by physical therapists. (Same as PT 506.) 2 lec.

412 Professional Role Issues (2) (winter)

Major philosophical and substantive issues confronting physical therapists and other professionals involved in health care delivery. Includes historical perspectives, education and accreditation, and roles and responsibilities of physical therapists relative to supportive personnel and related health care disciplines. Emphasis on role problems. (Same as PT 512.) 2 lec.

425A PT Evaluations: Case Studies (2)

Prereq: 402. (winter) Introduction to evaluation formats and procedures to complement the clinical decision making process concurrently taught. Focus on presenting general and specialty evaluations by clinicians, with opportunities for discussion, practice, and critique. (Same as PT 525A.) 1 lec, 2 lab.

440 Clinical Decision Making (2)

Prereq: 400. (winter) Presents theoretical foundation of clinical problem solving. Problem solving models for decision making are advanced and critiqued. Focus on physical therapy evaluation and treatment with analysis of process utilized by clinicians. (Same as PT 540.) 2 lec.

448A Clinical Modalities (3)

Prereq: 403. (spring) Designed to provide both theoretical basis and procedural techniques involved in the use of clinical modalities. Emphasis on thermal agents, mechanical agents, electrical stimulation, biofeedback, and electromyography. (Same as PT 548A.) 3 lec, 3 lab.

450A Introduction to Clinical Orthopedics (3)

Prereq: 402. (spring) Application of kinesiology, pathophysiology, evaluation, and decision making skills in common conditions such as sprains, strains, fractures, and total joint arthroplasty. Clinical decision making in sports medicine, industrial, and geriatric cases. Aspects of orthopedic surgical intervention discussed. (Same as PT 550A.) 2 lec, 3 lab.

467 General Medical-Surgical Cases (3)

Prereq: 400. (spring) Application of general medical-surgical patient problems commonly seen in physical therapy. Case study approach incorporates basic, social, and clinical sciences as well as PT and interdisciplinary evaluation and treatment. Practice skills focus on diagnostic and patient care procedures. (Same as PT 567.) 2 lec, 3 lab.

480A Research Design (3)

Prereq: 440. (spring) Application of research principles and procedures to critical analysis of physical therapy and research literature; identification and development of a researchable problem in physical therapy. (Same as PT 580A.) 3 lec.

499 Clinical Education Experience I (1)

Prereq: 405. Assigned clinical experiences appropriate to student’s level of skill. (Same as PT 599.) 3 lab.

500 Introduction to Planetary Science (3)

Prereq: PHYS 525, MATH 263C. Physical foundations of astronomical observation and theory. Time and coordinate systems, orbits, celestial mechanics, radiation mechanisms, and spectra. Telescopes and instrumentation. Introduction to the physical properties of stars, galaxies, and interstellar matter. Overview of cosmological distance measurements and the “hot big bang” model. 3 lec.

110 Astronomy Laboratory (1-3)

Prereq: PHYS 525; graduate standing or enrollment. Telescope observations and other laboratory studies dealing with astronomy.

401 Stellar Astrophysics (3)

Prereq: 305, MATH 340, MATH 440. The physics of stellar atmospheres and interiors. Mathematical treatments of radiative transfer, hydrodynamics, and stellar structure; stellar atmospheres and spectra; stellar interiors; and nuclear energy sources. Stellar evolution, red giant stars, pulsating variables; physics of degenerate gases, white dwarfs, neutron stars, pulsars, black holes.

402 Galactic and Interstellar Astrophysics (3)


403 Extragalactic Astrophysics and Cosmology (3)


410 Observational Astrophysics (3)

Prereq: 305. Modern observational techniques and instrumentation. Planning and execution of observational programs; data acquisition, reduction, and analysis; presentation of scientific results. 2 lec, 2 lab.

450 Studies in Astronomy (1-3, arranged)

Prereq: 305 and perm.

**Physics and Astronomy**

Astronomy (ASTR)

100 Survey of Astronomy (4) (2N)

General introduction to astronomy, with emphasis on the structure of the universe beyond our solar system. Topics (chosen by instructor) may include historical astronomy, the sun, stars and galaxies, interstellar matter, black holes, the “Big Bang” theory, and the evolution of the universe. No prereq, but familiarity with basic algebra and geometry is beneficial. Also listed as PSC 100. 4 lec.

100D Moons and Planets: The Solar System (4) (2N)

General introduction to astronomy, with emphasis on our solar system and other planetary systems. Topics (chosen by instructor) may include historical astronomy, the sun, surfaces, interiors, and atmospheres of the planets, comets, asteroids and meteor impacts, planets around other stars, and the origin of life. No prereq, but familiarity with basic algebra and geometry is beneficial. Also listed as PSC 100D. 4 lec.

100D Observational Astronomy Laboratory (1) (2N)

Experience with telescopes and locating stars, planets, and deep-sky objects in the night sky. Also covers topics such as solar system, seasonal variations, lunar cycles, and, when appropriate, eclipses and comets. Meets at night only. Also listed as PSC 140. 2 lab.

200 Introduction to Planetary Science (3) (2N)

Prereq: 4 hrs PSC or GEOl or perm; MATH 113 or equiv; no credit for both ASTR 200 and PSC 200. An introduction to the physical processes behind the formation and evolution of planets, moons, asteroids, and comets. Topics will include formation of the Solar System, planetary atmospheres and interiors, volcanism, meteor impacts, and cratering.

205 Life on Other Worlds? (3) (2N)

Prereq: 4 hrs PSC, MATH 113 or equiv; no credit for both ASTR 205 and PSC 205. An exploration of ideas relating to the possibility that life exists elsewhere in the universe, both on planets and moons within our solar system, and within other planetary systems. The course begins by considering our planet’s formation and the history of life here, then moves outward.

305 Fundamentals of Astrophysics (3)

Prereq: PHYS 253, MATH 263C. Physical foundations of astronomical observation and theory. Time and coordinate systems, orbits, celestial mechanics, radiation mechanisms, and spectra. Telescopes and instrumentation. Introduction to the physical properties of stars, galaxies, and interstellar matter. Overview of cosmological distance measurements and the “hot big bang” model.

310 Astronomy Laboratory (1-3)

Prereq: PHYS 253 or graduate standing. Telescope observations and other laboratory studies dealing with astronomy.