

Minot State University
Minot, North Dakota

2002-2004
Undergraduate
Catalog



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Subject to Change Statement

This catalog has been prepared by faculty and administration to provide information to prospective and enrolled students. The right is reserved to change any of the rules and regulations of the University at any time, including those relating to admission, instruction, and graduation. The right to withdraw curricula and specific courses, alter course content, change the calendar, and to add or increase fees is similarly reserved. All such changes are effective at such times as the proper authorities determine and may apply not only to prospective students but also to those who already are enrolled in the University.

Regarding Discrimination

Minot State University subscribes to the principles and laws of the state of North Dakota and the federal government pertaining to civil rights and equal opportunity, including Title IX of the 1972 Education Amendments. Minot State University policy prohibits discrimination on the basis of race, gender, religion, age, color, creed, national or ethnic origin, marital status, or disability in the recruitment and admission of students and the employment of faculty, staff, and students, and in the operation of all college programs, activities, and services. Evidence of practices which are inconsistent with this policy should be reported to the Human Resource Director in the Administration Building.

Course Descriptions

Generic Course Descriptions

Course Numbering System

100-199	Primarily for freshman
200-299	Primarily for sophomores
300-399	Primarily for juniors
400-499	Primarily for seniors
500-599	Primarily for graduate students

Prerequisites and Corequisites

"Prerequisite" indicates the course, courses, or levels of competence to be satisfactorily completed before enrollment in the course described.

"Corequisite" indicates a course which must be taken concurrently with the course described. Questions concerning prerequisites or corequisites should be referred to the instructor of the course.

Sequential Courses

In general, courses listed in majors and minors should be taken in the numerical order as listed.

Independent Study—General

Course number 394 is reserved throughout disciplines for catalog courses to be undertaken independently. Students must make advance arrangements with the faculty member for Independent Study courses. Course number 394 is offered for one-to-four variable credits. No student may apply more than a total of four Independent Study credits to any degree program.

Independent Study—Honors

Course number 494 is reserved throughout disciplines for study to be undertaken independently by students in the Honors Program. Honors students must make advance arrangements with a faculty member for Independent Study projects. Course number 494 is offered for one-to-eight variable credits. No honors student may apply more than a total of eight Independent Study—Honors credits to any degree program. Credit is assigned on the basis of the amount of time to be devoted to the course. These courses are restricted to students in the Honors Program.

Special Topics

Course numbers 299 and 499 are reserved throughout disciplines for special topics such as experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. They are offered for variable credit. The maximum number of 299 and 499 Special Topics credits that may be applied toward any major is 12 credits at each level.

ACCOUNTING

ACCT 102 Fundamentals of Accounting 3 cr. A basic study of the accounting cycle for a sole proprietorship business.

ACCT 200 Elements of Accounting I 3 cr. Basic principles of the complete accounting cycle with emphasis on current assets; property, plant, and equipment; and current liabilities. Prerequisites: BOTE 127 and MATH 103.

ACCT 201 Elements of Accounting II 3 cr. A continuation course of ACCT 200 with emphasis on partnerships, corporations, and management accounting. Prerequisite: ACCT 200.

ACCT 300 Legal Environment of Business 3 cr. Includes the nature and function of law; contracts and private property as basic concepts in free enterprise; the legal system and evolution of attitudes and law regarding marketing functions and governmental regulation imposed on business activities. (Sophomore level standing or consent of instructor required.)

ACCT 301 Intermediate Accounting I 3 cr. Begins with a review of the accounting process and the conceptual framework underlying financial accounting. It proceeds to an in-depth study of cash, time value of money, receivables, and inventory. Prerequisites: ACCT 201, BOTE 247, and MATH 146.

ACCT 302 Intermediate Accounting II 3 cr. Continues the intermediate sequence with in-depth coverage of operational assets (tangible and intangible), liabilities (current and long-term), stockholder's equity, and investments. Prerequisite: ACCT 301.

ACCT 303 Intermediate Accounting III 3 cr. Concludes the intermediate sequence with in-depth coverage of the statement of cash flows, pensions and post retirement benefits, leases, earnings per share, financial statement analysis, accounting for income taxes, accounting changes and error analysis, revenue recognition, and financial reporting. Prerequisite: ACCT 302.

ACCT 311 Federal Tax I 3 cr. Applies federal income taxation to individuals, including the preparation and use of individual and small business tax forms. Prerequisite: ACCT 201.

ACCT 312 Federal Tax II 3 cr. Concludes the study of individual taxation and proceeds to the study of tax laws as they pertain to corporations, partnerships, fiduciaries, and not-for-profit entities. Prerequisite: ACCT 311.

ACCT 315 Not-For-Profit Accounting 3 cr. Covers budgetary accounting, the preparation of reports and statements, and the use of special funds for state and local governmental units, hospitals, colleges, and other organizations. Prerequisite: ACCT 201.

ACCT 321 Managerial Accounting 3 cr. Emphasizes structuring and analyzing accounting data for internal management decision-making purposes, including: cost-volume-profit analysis, manufacturing costs, relevant costs, budgeting, job-costing and process-costing systems, overhead application, segmented reporting, variable costing, and pricing products and services. Prerequisites: ACCT 201 and BADM 301.

ACCT 326 Cost Accounting I 3 cr. Addresses cost behavior and accounting for production and service costs. Focus is on costing systems—services, job order, process, activity based, back flush, operations, and standard costing. Prerequisites: ACCT 201, BOTE 247, and MATH 240.

ACCT 327 Cost Accounting II 3 cr. Studies cost allocation concepts, methods, and problems. In addition, decision models and performance measures are examined. Prerequisite: ACCT 326.

ACCT 330 International Business Law 3 cr. Provides a study of four major topics: 1) international sales contracts subject to the UN Convention for Contracts for the International Sale of Goods (CISG); 2) North American Free Trade Agreement (NAFTA); 3) General

Agreement on Trade and Tariffs (GATT); and 4) remedies/enforcement of the international sales contract. Prerequisite: ACCT 300.

ACCT 331 Business Law I 3 cr. Topics include contracts (formation, performance, rights, and remedies), negotiable instruments, and legal matters relating to the financial/banking community. (Junior level standing or consent of instructor required.)

ACCT 332 Business Law II 3 cr. Topics include Uniform Commercial Code (Art. 2, sales contracts), Uniform Commercial Code (Art. 9, secured transactions), employment/agency law. Prerequisite: ACCT 331.

ACCT 360 Accounting Information Systems 3 cr. Emphasizes how accounting information systems function in today's business environment. Manual and computer systems will be used to study the processes and procedures by which an organization's financial information is accumulated, classified, processed, analyzed, and communicated. Topics include business cycles, controls, integrated accounting software, spreadsheets, and relational databases. Prerequisites: ACCT 302, ACCT 326, and BIT 320.

ACCT 401 Advanced Accounting I 3 cr. Addresses issues related to business combinations and consolidated financial statements. Prerequisite: ACCT 302.

ACCT 402 Advanced Accounting II 3 cr. Addresses accounting for foreign operations, segment reporting, home/branch accounting, interim financial reporting, accounting for estates/trusts, corporate reorganizations/liquidations, and partnership accounting. Prerequisite: ACCT 302.

ACCT 430 Auditing I 3 cr. Introduces the standards and procedures necessary for the independent auditor to employ in the evaluation of the entity's periodic income and financial position. It emphasizes report writing, ethics, legal liability, planning/evidence gathering, and internal control. Prerequisite: ACCT 302.

ACCT 431 Auditing II 3 cr. Completes the coverage of basic auditing concepts. Audit procedures are applied to the basic operating cycles and specific balance sheet accounts. Also discussed are statistical sampling techniques and auditing EDP systems. Prerequisites: ACCT 430 and MATH 240.

ACCT 497 Accounting Internship 2-8 cr. Refers to supervised professional experience in public, industrial, governmental, or non-profit accounting. Students must meet standards set by both the employer and the Accounting Department. A maximum of 2 credits count toward the major with the remaining credits counting as electives. (Consent of program coordinator required.)

ART

ART 101 Introduction to Studio Art 2 cr. An introductory studio art course designed to familiarize the non-art major with the basic painting, printmaking, sculptural, jewelry, and ceramic processes.

ART 110 Introduction to Art 2 cr. Study and appreciation of visual arts. Two hour lecture.

ART 112 Computer Graphics 2 cr. An introduction to the computer as it applies to page layout, digital imaging, and the visual arts. Four studio hours per week.

ART 122 Two-Dimensional Design 2 cr. A basic course in the study of two-dimensional design for the studio artist. Four studio hours per week.

ART 123 Color and Design 2 cr. Study of color properties and structural devices and their contribution to visual organization. Four studio hours per week. Prerequisite: ART 122 or consent of instructor.

ART 124 Three-Dimensional Design 2 cr. A basic course in the study of three-dimensional design for the studio artist. Four studio hours per week. Prerequisite: ART 122 or consent of instructor.

ART 130 Drawing I 2 cr. Introduction to basic drawing techniques through a variety of materials. Four studio hours per week.

ART 140 Crafts 2 cr. Introduction to basic crafts. Four studio hours per week.

ART 201 Art Methods for Elementary Education 2 cr. Methods of teaching art in elementary education. Four studio hours per week.

ART 204 Jewelry I 2 cr. Introduction to basic jewelry techniques, design, and materials. Four studio hours per week.

ART 210 Art History I 3 cr. A survey of western art from Paleolithic to Renaissance.

ART 211 Art History II 3 cr. A survey of western art from Renaissance to present.

ART 213 Graphic Design I 2 cr. Introduction to the elements and practice of typography with emphasis on typefaces and letterforms in graphic design. Four studio hours per week. Prerequisites: ART 112, ART 123, 130 or consent of instructor.

ART 214 Graphic Design II 2 cr. Application of problem solving skills for visual communications as applied to the history of graphic design. Four studio hours per week. Prerequisite: ART 213 or consent of instructor.

ART 219 Native American Art 2 cr. Art and crafts of the North American Indian through a study of the artifacts and contemporary work.

ART 220 Painting I 2 cr. Introduction to basic painting through a variety of materials. Four studio hours per week. Prerequisite: ART 123.

ART 225 Watermedia I 2 cr. Introduction to basic watermedia painting for the studio artist. Four studio hours per week. Prerequisite: ART 123 or consent of instructor.

ART 231 Figure Drawing I 2 cr. Introduction to basic figure drawing. Four studio hours per week. Prerequisite: ART 130 or consent of instructor.

ART 250 Ceramics I 2 cr. Introduction to basic ceramic techniques. Four studio hours per week.

ART 265 Sculpture I 2 cr. Introduction to basic sculpture materials and techniques. Four studio hours per week. Prerequisite: ART 124.

ART 270 Printmaking I 2 cr. Introduction to basic printmaking techniques and materials. Four studio hours per week. Prerequisites: ART 123 and 130 or consent of instructor.

ART 280 Photography I 2 cr. Introduction to basic photography. Four studio hours per week.

ART 322 Graphic Design III 2 cr. An advanced exploration of graphic design and the assembling of an exiting portfolio. Four studio hours per week. Prerequisite: ART 214

ART 323 Illustration Techniques 2 cr. Introduction to materials, techniques, and problem solving skills used in illustration. Four studio hours per week. Prerequisite: ART 322.

ART 331 Drawing III 2 cr. Advanced problems in drawing including still-life figure drawing, group composition, and style. Four studio hours per week. Prerequisites: ART 220 and 231.

ART 333 Painting II 2 cr. Continuation of ART 220 with emphasis on independent development of technique, composition, and style. Four studio hours per week. Prerequisites: ART 220 or consent of instructor.

ART 334 Painting III 2 cr. Continuation of ART 333. Four studio hours per week. Prerequisite: ART 333 or consent of instructor.

ART 341 Sculpture II 2 cr. Continuation of ART 265. Four studio hours per week. Prerequisite: ART 265 or consent of instructor.

ART 351 Ceramics II 2 cr. Advanced development of the individual ceramist-teacher in studio experience related to clay bodies, glazes, and firing procedures. Four studio hours per week. Prerequisite: ART 250 or consent of instructor.

ART 352 Ceramics III 2 cr. Continuation of ART 351. Four studio hours per week. Prerequisites: ART 250 and 351.

ART 361 Printmaking II 2 cr. Basic experiences in intaglio printing techniques with emphasis upon imaginative expression in these media. Four studio hours per week. Prerequisites: ART 123 and 130 or consent of instructor.

ART 362 Printmaking III 2 cr. Continuation of 270 and 361 with emphasis on independent development of technique, composition, and style. Four studio hours per week. Prerequisite: ART 270 or 361 or consent of instructor.

ART 370 Photography II 2 cr. Course emphasis will encourage exploration and production in photographic media not studies in restrictive basic courses. Four studio hours per week. Prerequisite: ART 280 or consent of instructor.

ART 371 Photography III 2 cr. Continuation of Art 370 with emphasis on independent development of technique, composition and style. Four studio hours per week. Prerequisite: ART 280 and ART 370 or consent of instructor.

ART 380 Watermedia II 2 cr. Continuation of ART 225 with renewed emphasis on development of an individualized technique, style, and concept though acrylic as well as transparent watercolor. Four studio hours per week. Prerequisites: ART 123 and 225.

ART 390 Art Methods 2 cr. Basic experience in organizational techniques and classroom presentation as they apply specifically to the public school art class. Prerequisites: Admittance to Teacher Education and ART 122, 130, 140, 201 or consent of instructor.

ART 410 Advanced Independent Drawing 1-16 cr. Open to advanced art students for independent involvement in drawing. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 411 Advanced Independent Painting 1-16 cr. Open to advanced art students for independent involvement in painting. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 412 Advanced Independent Ceramics 1-16 cr. Open to advanced art students for independent involvement in ceramics. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 413 Advanced Independent Sculpture 1-16 cr. Open to advanced art students for independent involvement in sculpture. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 414 Advanced Independent Graphic Design 1-16 cr. Open to advanced art students for independent involvement in graphic design. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 415 Advanced Independent Jewelry 1-16 cr. Open to advanced art students for independent involvement in jewelry. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 416 Advanced Independent Crafts 1-16 cr. Open to advanced art students for independent involvement in crafts. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 417 Advanced Independent Photography 1-16 cr. Open to advanced art students for independent involvement in photography. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 418 Advanced Independent Printmaking 1-16 cr. Open to advanced art students for independent involvement in printmaking. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 419 Advanced Independent Computer Graphics 1-16 cr.

Open to advanced art students for independent involvement in computer graphics. A preliminary outline of proposed studio work and approach is required. Critiques with art staff required. (A minimum of four clock-hours per credit per week.) Prerequisite: consent of instructor or advanced status. May be repeated for a total of 16 credits.

ART 420 Art Internship 1-16 cr. This course is offered for variable credit. It is an internship in any of the following areas: graphic design, art gallery administration, and professional studio apprenticeship. A minimum of four clock-hours per credit hour per week.

ART 422 Digital Design 2 cr. The exploration of multimedia and web page design as related to visual communication. Prerequisite: ART 322 or consent of instructor.

ART 423 Digital Communication and Design Lab 1 cr. An exploration of multimedia software. Corequisite: ART 422

ART 425 Professional Practices for the Visual Artist 2 cr. Introduction to the business of being a professional artist. Includes a comprehensive exhibit of the student's creative work prior to graduation. Prerequisite: Senior status. Must enroll two semesters prior to anticipated graduation.

ART 497 Art Internship 1-16 cr. This course is offered for variable credit. It is an internship in any of the following areas: graphic design, art gallery administration, and professional studio apprenticeship. A minimum of four clock-hours per credit hour per week.

BUSINESS ADMINISTRATION

BADM 120 Fundamentals of Business 3 cr. Acquaints the student with the American free enterprise system. Topics include consumer rights, personal finance, business ethics, employment and careers in finance, management, marketing, and international business. This course may not be taken by business majors during their final two semesters. An excellent course for beginning business students and nonbusiness majors.

BADM 205 Supervisory Management 3 cr. Focuses on the primary functions associated with the supervision of employees. The course explores the relationship between supervisors and employees, the organizational framework in which supervisors must operate, employee hiring, motivation, and discipline. Beginning business students, nonbusiness majors, and employees in beginning supervisory positions will find this to be a valuable course.

BADM 251 Personal Finance 3 cr. Introduces the consumer to money management and the development of long and short term personal financial planning. Topics include budgeting, consumer credit, saving and investing, insurance planning, retirement and estate planning, real estate investment, and shelter planning. An excellent course for beginning business students and nonbusiness majors.

BADM 282 Professional Development 2 cr. Provides students with the knowledge and skills that are needed for entering the job market, including the determination of clear career goals and objectives, determination of specific career paths, searching for positions, analysis of prospective employers, development of effective resumes and interviewing for positions.

BADM 301 Fundamentals of Management 3 cr. Focuses on the nature of management, the evolution of management thought, strategic management and planning concepts, decision making and creative problem solving, and motivation and leadership in a changing environment. Prerequisite: junior status or consent of instructor.

BADM 303 Human Resource Management 3 cr. Includes personnel policies, programs, and procedures, standards, employment, staffing, wage and salary administration, personnel laws, and personnel research. Prerequisite: BADM 301.

BADM 309 Safety Management 3 cr. Introduces safety management in the work place and its application to the law, OSHA, cost analysis, program organization, and safety program administration. Prerequisite: BADM 301.

BADM 321 Marketing 3 cr. Acquaints students with the understanding of problems involved in getting goods from the producer to the user. Distribution channels and the different functions of marketing intermediaries are studied. Marketing cases and simulations are stressed. Prerequisite: junior status or consent of instructor.

BADM 322 Professional Selling 3 cr. Introduces the basic principles that underline selling and the steps in making a sale (prospecting, approaches, objections, presentations, demonstrations, closing). Practical illustrations and demonstrations are employed.

BADM 323 Retail Store Management 3 cr. Examines the basic principles and methods of retail merchandising, store location and layout, buying, selling, stock and inventory control, personnel recruitment and management. Prerequisite: BADM 321 or consent of instructor.

BADM 324 Advertising and Sales Promotion 3 cr. Combines a strong managerial approach with a hands on production orientation and includes the application of marketing theory as well as effective copywriting and graphic design. The decision sequence framework that a manager would follow in developing an advertising campaign is stressed. Prerequisite: BADM 321 or consent of instructor.

BADM 326 New Product Development 3 cr. Focuses on the new product development and planning process, the management of new product introduction into the marketplace, and pricing. Includes idea generation, concept testing, screening, technical development, market testing, and the launching of new products into the market. Prerequisites: BADM 321.

BADM 327 Services Marketing 3 cr. Explores the essential characteristics of services marketing, the features that distinguish services for goods, and their implications for marketing decisions. Prerequisites: BADM 321.

BADM 328 Direct Marketing 3 cr. Examines interactive marketing systems that use one or more advertising media to effect a measurable response by using the elements of the marketing mix to sell directly to both consumers and other businesses, by-passing retail stores and personal sales calls. Prerequisites: BADM 321.

BADM 329 Marketing Management 3 cr. Emphasizes analysis, planning, implementation, and control of programs designed to integrate marketing concepts in the exchange process with target markets to achieve organizational objectives. Prerequisites: BADM 301, 321.

BADM 341 Principles of Real Estate 3 cr. Introduces basic problems governing the use, ownership, and transfer of real estate including property rights, land utilization, legal instruments, analysis of real estate markets, sales, and real estate management.

BADM 353 Corporation Finance 3 cr. Introduces the student to the essentials of financial management. Coverage includes financial analysis, working capital management, capital budgeting, cost of capital, dividend policy, and long term financing decisions. Prerequisites: ACCT 201 and MATH 240.

BADM 355 Investments 3 cr. Introduces the student to the principles of investment. Topics to be covered include: description of the investment environment and investment decisions; introduction to investment, security, and portfolio theories; financial statement analysis; the implications of the Efficient Markets Hypothesis for active and passive portfolio management; and analysis, valuation and management of equities, fixed income securities, indices and indexed funds, and derivative securities. Prerequisite: BADM 353.

BADM 357 Advanced Corporate Finance 3 cr. An advanced course which examines issues related to financing the corporation including capital structure, valuation of various forms of debt and equity financing, capital budgeting decisions, dividend policy decisions, financial analysis, forecasting and managing risk with financial instruments. Prerequisite: BADM 353.

BADM 391H Seminar in Business Issues 3 cr. Challenges the honors student to develop critical thinking skills, apply these skills to various business issues, cultivate well thought-out opinions, and defend these opinions against others. Honors Program admission or 3.30 cumulative GPA and permission of instructor is required.

BADM 401 Entrepreneurship/Small Business Management 3 cr. Focuses on the most common problems encountered by owners, managers, and entrepreneurs in organizing and operating small enterprises. Topics include legal requirements and financial, marketing, promotional, human resource management, and organizational strategies. Prerequisites: BADM 301, BADM 321, BADM 353, and junior status.

BADM 406 Business Ethics 3 cr. Studies of ethical issues faced by businesses including distributive justice, capitalism, decision-making, corporate responsibility, corporate morality, governance, whistle-blowing, hiring policies, codes of ethics, advertising, safety, pollution, and foreign business practices. Prerequisites: Senior status or instructor consent.

BADM 408 Negotiations 3 cr. The study of negotiation to include framing, strategizing, planning, tactics, negotiating, and settlement. The course of study includes individual, organizational, and collective bargaining processes. It also includes practical applications of bargaining processes through group projects.

BADM 409 International Business 3 cr. Introduces conceptual and operational problems of participating in international business. Coverage includes a study of managerial, marketing, financial, accounting, legal, economic and cultural environments in foreign markets for the conduct of world business. Prerequisites: BADM 301, 321, and 353.

BADM 416 Production Management 3 cr. Introduces the concepts, issues, and problems of operations management and the management of the production function. Problems are analyzed and

solutions are recommended. Microcomputer applications are addressed. Prerequisites: A course in statistics, BADM 301 and senior status.

BADM 421 Applied Business Research 3 cr. Explores the full range of activities involved in the marketing research process for business including research and measurement concepts, sampling and field work, and data analysis and presentation. Prerequisites: BADM 321, MATH 240.

BADM 422 Consumer Behavior 3 cr. Studies the consumer decision making process in purchase of goods and services. Emphasis is placed on the developing and understanding of the determinants of consumer behavior and the appropriate application of marketing strategies. Prerequisite: BADM 321.

BADM 424 Logistics and Channel Management 3 cr. Explores channels of distribution considering behavioral, social, and economic aspects of the distribution system to include transportation, inventory management, order processing, purchasing, warehousing, materials handling, packaging, customer service, and product scheduling. Prerequisite: BADM 321.

BADM 427 International Marketing 3 cr. Introduces the essentials of conducting international marketing operations to include estimating market potential, developing entry strategies, and managing and controlling marketing programs. Prerequisite: BADM 321.

BADM 434 Cultural Environment of International Business 3 cr. Examines the impact of culture on business practices. This is accomplished by building a holistic understanding of each subject culture through analysis of the culture's belief system, government, human/family system, history, and economic system.

BADM 436 Organizational Behavior 3 cr. Includes the principles, concepts, and processes that interpret human relations in management at the individual, group, and organizational levels. Prerequisite: BADM 301.

BADM 437 International Management 3 cr. Introduces the student to the management process in an international setting. It includes an examination of comparative management systems and environmental conditions for making effective decisions in an international context. Strategies for adapting to different cultures, economics, and political systems are emphasized. Prerequisite: BADM 301.

BADM 442 Real Estate Law 3 cr. Emphasizes the law of contracts, ownership, agency and legal aspects of evidence of title, deed, trust deeds and investment, case law and opinions. Prerequisite: BADM 341.

BADM 443 Real Estate Finance 3 cr. Acquaints students with the development and importance of real estate financing and explores money markets including financing instruments, loan processes, V.A. and F.H.A. loans, and alternatives to financing residential, commercial, and income property.

BADM 444 Real Estate Appraisal 3 cr. Explores the major approaches to valuation and its application to residential, commercial, and industrial properties. Includes the study of appraisal theory, economic trends, neighborhood analysis, improvement evaluation and methods of farm, ranch, and income property evaluation.

BADM 451 Insurance and Risk Management 3 cr. Examines the nature of risk management from an individual and business perspective. Topics include the basic provisions of the insurance contract, insurance practices, carriers, life, health, liability, homeowners, auto, and marine coverages.

BADM 454 Portfolio Theory 3 cr. Studies advanced concepts relating to investments to include financial statement analysis, stock market efficiency and anomalies, derivative securities, valuation of debt, equity securities and modern portfolio theory. Prerequisites: BADM 353, BADM 355.

BADM 455 Financial Institutions and Markets 3 cr. Focuses on the management of depository and non-depository financial institutions and the use of the money and capital markets in financial management strategy. Institutional emphasis includes banks, S & L's, credit unions, investment companies, real estate investment trusts, finance companies, insurance companies, and pension funds. Prerequisite: BADM 353.

BADM 457 International Corporate Finance 3 cr. Examines financial management implications of exchange risk exposure, accounting conventions, international constraint on capital flows, international investment management, foreign taxation, and working capital management of international firms. Prerequisite: BADM 353.

BADM 458 Financial Management 3 cr. Emphasizes the application of financial decision making principles, tools, and techniques. Coverage includes financial analysis, planning and control, working capital, capital budgeting, long-term financing, financial structure, dividend policy, cost of capital, and financial rearrangements. Prerequisites: BADM 353, 357.

BADM 462 International Business Strategy 3 cr. Provides an international business capstone experience. Case studies illustrating international business decisions and operations are emphasized. Prerequisites: BADM 409 and senior status.

BADM 465 Strategic Management 3 cr. An analysis of the objectives of business firms and the development and evaluation of strategies and policies designed to meet these objectives. Cases are emphasized. Prerequisites: BADM 301, 321, 353, and senior status.

BADM 496 Business Consulting 3 cr. Junior/senior level students consult with area businesses in conjunction with faculty advisors. An excellent opportunity for students to apply business knowledge to real life business situations.

BADM 497 Internships 2-9 cr. A cooperative occupational training program in the area of marketing, finance, and management. Course is offered on pass/fail basis. Maximum of 3 credits will count toward major. Prerequisites: junior or senior business administration major and departmental consent. Repeatable up to 9 credit hours.

BADM 499 Special Topics variable cr. Topics are variable. Offerings include visiting professors, experimental offerings of new courses, or one time offerings of current topics.

BIOLOGY

BIOL 111 Concepts of Biology 4 cr. This course is designed to accommodate one semester of the general education requirement for non-science majors at Minot State University. The course will focus on a comprehensive survey of modern biology with an emphasis on enhancing the science literacy of the college educated student.

Topics will include, but not limited to: cell biology, genetics, evolution by natural selection, systematics, and the impact of human activity on the biosphere. Where appropriate, topics will be illustrated with examples of the human animal and at all times the course will reflect the five strands of a general education course. Lecture, 3 hours; laboratory, 2 hours.

BIOL 103 Introduction to Clinical Laboratory Science 1 cr. Designed to acquaint freshman medical technology students with the depth and breadth of this field. Students visit medical technology departments at local hospitals. The course is presented by the education coordinators at local hospitals. Lecture, 1 hour.

BIOL 115 Human Structure and Function 4 cr. Structure and function of the human body. Anatomy and physiology of major body systems is emphasized. Lecture, 3 hours; laboratory, 2 hours.

BIOL 142 General Microbiology 4 cr. A survey of microbial cell biology, microbial genetics, microbial interaction with humans, and the impact of microorganisms on the environment. Lecture, 3 hours; laboratory, 2 hours.

BIOL 150 General Biology I: Introduction to Cellular Biology 4 cr. Introduction to fundamental concepts of biology at the level of the cell including: bioenergetics, cell structure, physiology principles, genetic function and inheritance. Lecture, 3 hours; laboratory, 2 hours.

BIOL 151 General Biology II: Introduction to Zoology 4 cr. The biology of animals is covered beginning with an emphasis on the underlying cellular structure and physiology and expanding towards larger whole organism features that are difficult to predict from cell biology. The general patterns of animal life are covered. In an effort to connect the general principles offered in this course to one's daily life (e.g., cellular respiration, excretion, muscle structure and function), an emphasis is placed on mammalian systems. Lecture, 3 hours; laboratory, 2 hours.

BIOL 154 Introduction to Botany 4 cr. Introduction to the biology of plants emphasizing evolution and diversity, plant anatomy and development, water and mineral nutrition, photosynthesis, and plant ecology. Lecture, 3 hours; laboratory, 2 hours.

BIOL 215 Genetics 4 cr. Introduction to principles of genetics including: inheritance, DNA and chromosomes, gene regulation, evolution, and genetic engineering. Lecture, 3 hours; laboratory, 2 hours. Prerequisite: BIOL 150

BIOL 220 Anatomy and Physiology I 4 cr. Structure and function of the human body dealing with the chemical, cellular, and tissue levels of organization and integumentary, skeletal, muscular, and nervous systems. Lecture, 3 hours; laboratory, 2 hours.

BIOL 221 Anatomy and Physiology II 4 cr. Structure and function of the human body dealing with the digestive, cardiovascular, respiratory, lymphatic, endocrine, reproductive, and urinary systems; special senses and metabolism, fluid and electrolyte, and acid-base balance; metabolism and energetics. Lecture, 3 hours; laboratory, 2 hours. Prerequisite: BIOL 220.

BIOL 250 Cellular Biology 4 cr. An advanced cell biology designed for biology majors with an emphasis on biological chemistry, membrane structure and transport, cellular energy metabolism, protein synthesis and modification, subcellular organelle structure and function, and the cell biology of the nucleus. Lecture, 3 hours; laboratory, 2 hours. Prerequisite: BIOL 150.

BIOL 301 Evolution 4 cr. This course details the processes that influence evolutionary change. An emphasis is placed on the methodology for (1) inferring phylogenetic relationships (i.e., history), (2) determining the relative influences of natural selection and genetic drift, and (3) exploring the conditions that lead to various modes of speciation. Topics covered include population genetics, speciation, microevolution vs. macroevolution, punctuated equilibrium, life history theory, and modes of selection. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154, 215.

BIOL 310 Ethnobotany 3 cr. Native and introduced plants in Native American culture with emphasis on food, medical, habitational, and ritual uses. Lecture, 3 hours.

BIOL 325 Entomology 4 cr. Classification, taxonomy, morphology, identification, life histories, interrelationships, and economic importance of insects. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 330 Biogeography 4 cr. This course will describe the spatial patterns in the distribution of species and will examine how abiotic and biotic factors are hypothesized to result in these patterns. Lecture, 3 hours; recitation, 1 hour. Prerequisites: BIOL 150, 151, 154.

BIOL 335 Comparative Anatomy 4 cr. Comparative study of organ systems of a series of vertebrates. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154, PHYS 203.

BIOL 340 Systematic Zoology 4 cr. Evolution, classification, taxonomy, and identification of invertebrates and vertebrates. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 346 Developmental Biology 4 cr. Principles of development as shown in representative plant and animal forms. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 347 General Ecology 4 cr. Plants and animals in their environment. An ecosystem approach is used. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 349 Plant Physiology 4 cr. Physiological processes of plants with special emphasis on nutrition, metabolism, growth and development. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 350 Freshwater Biology 4 cr. Biological, chemical, and physical characteristics of inland waters including origins, interrelationships and the effect of civilization. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 360 Morphology of Vascular Plants 4 cr. Structure and development of vascular plants with special emphasis on evolutionary trends. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 401 Population Genetics 4 cr. This course explores the mechanics of evolution from the viewpoint of allelic frequencies. It begins with the basic theory of Hardy Weinberg equilibrium and expands that theory to embrace linkage disequilibrium, selection in single-locus and multifocus systems, genetic drift, and the effects of mutation rates, population size, and migration on the genetic structure of populations. Exposure is given to classic ideas (e.g., shifting balance theory and runaway sexual selection) and to applications of theory (e.g., breeding designs, conservation genetics). Lecture, 3 hours; recitation 1 hr. Prerequisites: BIOL 150, 151, 154, 215.

BIOL 406 Clinical Laboratory Science 36 cr. Students spend three semesters training in a hospital clinical laboratory. Summer semester: Immunohematology I, Chemistry Theory, Clinical Laboratory I, Hemostasis, Microscopy and Urinalysis, Body Fluids, Immunohematology Theory, Microbiology Theory and Laboratory. Fall semester: Immunohematology II, Chemistry I, Hematology I, Clinical Laboratory II, Microbiology I, Clinical Laboratory III, Immunology, Medical Mycology. Spring semester: Financial and Quality Management of the Clinical Laboratory, Chemistry II, Immunohematology III, Hematology II, Microbiology II.

BIOL 420 Co-op Practicum 4-8 cr. A cooperative program with industry, state, and federal agencies for an in-depth study of a specialized aspect of biology. Students spend approximately 25 clock hours per semester hour for the practicum. Prerequisites: 2 years of biology or consent of biology coordinator.

BIOL 430 Pre-Veterinary Practicum 3 cr. This program is designed to give MSU students a hands-on experience in veterinary medicine. The students spend about 80 hours per semester for the practicum. Prerequisite: 2 years of biology.

BIOL 440 Pre-Med Practicum 3 cr. This program is designed to give MSU students a basic understanding of the hospital and its functions. Students spend approximately 90 hours per semester in the various departments and the family practice clinic. Students are supervised by the physicians involved in the program while the program is coordinated by a biology professor on campus. Prerequisite: Consent of instructor.

BIOL 448 Systematic Botany 4 cr. Classification and taxonomy of seed plants with emphasis on local flora. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 450 Parasitology 4 cr. Morphology, taxonomy, and life histories of the endemic, exotic, and zoonotic parasites of the animal kingdom. Diseases caused by parasites are also presented. Lecture, 3 hours; laboratory, 3 hours. Prerequisite: BIOL 221.

BIOL 455 Hematology 4 cr. Study of the blood and hematologic disorders including anemia, leukemia, and other blood dyscrasias. Lecture, 3 hours; laboratory, 3 hours. Prerequisite: BIOL 221.

BIOL 458 Anatomy of Seed Plants 4 cr. Development of cells, tissues, and organs in seed plants. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154.

BIOL 460 Herpetology 4 cr. Herpetology is the study of reptiles (exclusive of birds) and amphibians; this includes extant groups (e.g., frogs) and extinct groups (e.g., dinosaurs). This course begins with the phylogeny, history, and taxonomy of "herps" (i.e., reptiles and amphibians) and progresses to coverage of physiology, ecology, and behavior.

BIOL 465 Immunology 4 cr. Principles and techniques of immunology and serology. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 142, CHEM 240.

BIOL 475 Clinical Microbiology 4 cr. Isolation, identification and clinical application of pathogenic microorganisms. Lecture, 3 hours; laboratory, 3 hours. Prerequisite: BIOL 142.

BIOL 480 Molecular Biology 4 cr. This course covers a variety of topics concerning the macromolecules of living cells, focusing on nucleic acids and proteins. Major areas of study include: DNA

replication and transcription, protein synthesis (translation), and comparison of processes in prokaryotic and eukaryotic cells. The latter part of the course will focus on mechanisms of gene expression, the molecular genetics of cancer, and applied molecular biology. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: BIOL 150, 151, 154, 215, 250.

BIOL 492 Directed Research 5-8 cr. The faculty of the Department of Biology consider research a valuable component of the curriculum. The content and extent of research projects are determined by the student and a faculty sponsor. The research may be in the lab or field and is intended to help the student develop a greater appreciation of the scientific process. While publication is not a requirement, all projects have a goal of producing publishable results. A successful experience in research can be an asset for graduate studies and many careers in biology. Prerequisites: BIOL 150, 151, 154.

BUSINESS INFORMATION TECHNOLOGY

Courses with BOTE prefix are recognized as common courses across the North Dakota University System.

BOTE 102 Keyboarding I 3 cr. Basic instruction and practice in using the alphanumeric keyboard. Emphasis on proper fingering for touch operation of the keyboard, development of speed and accuracy, and exploration of business document formatting.

BOTE 108 Business Math 3 cr. Review of mathematical fundamentals with emphasis on business applications and problem solving.

BOTE 127 Information Processing 3 cr. An introductory computer course concerned with concepts, hardware and software applications, operating systems, word processing, spreadsheets, presentations, and Internet.

BOTE 147 Word Processing 3 cr. Use of current word processing software to create professional business documents including letters, memos, reports, tables, forms, brochures, and graphic aids. Advanced features in printing, macros, and merging also practiced. Prerequisite: BOTE 102 or at least one semester of high school keyboarding.

BOTE 152 Keyboarding II 3 cr. Development of speed and accuracy in keyboarding straight copy and production activities. Emphasis placed on formatting and keying various business documents including memos, letters, reports, and tables from straight copy, rough drafts, and unarranged material. Prerequisite: BOTE 102 or at least one semester of high school keyboarding.

BIT 235 Internet and the World Wide Web 3 cr. Study of the Internet including utilities such as browsers, e-mail, listservs, telnet, music, audio, video and many other online learning activities. This class teaches you the basics of Web site design using HTML code and Web site editors. Prerequisite: BOTE 127.

BIT 236 Desktop Publishing and Design 3 cr. Hands-on computer course that surveys current software packages in the area of desktop publishing and presenting. Prerequisite: BOTE 127.

BOTE 247 Spreadsheet Applications 3 cr. Intermediate and advanced use of application software for creation of spreadsheets, graphs, databases, and macros. Integration with other software applications is also reviewed. Prerequisite: BOTE 127, or course equivalent from another institution.

BIT 312 Database Theory and Application 3 cr. Emphasis on database principles, concepts, theory, and applications. Students will learn how to design a database, locate data, edit data, display information, organize data, and generate custom design reports and labels using a popular relational database software. Prerequisite: BOTE 127.

BOTE 314 Business Reports and Communication 3 cr. Review of fundamentals of oral and written communication in business. Emphasis on use of technology in communication, business research and report preparation skills, and job search techniques. Also includes nonverbal, group, and multicultural communication. Prerequisites: ENGL 110, BOTE 127.

BIT 320 Management Information Systems 3 cr. Designed to introduce issues relevant to management information systems and to assist in preparing students to become managers of business information systems. Students are exposed to methods for acquiring, organizing, monitoring, and controlling information system resources and addressing management problems using computerized information systems. Prerequisites or corequisites: BOTE 127, BADM 301.

BIT 333 COBOL Programming I 3 cr. Includes the study of the compiler language COBOL with programming emphasis on business applications. Course also includes study of structured programming concepts; input, output, and data movement; arithmetic statements; IF statements and conditions; sequential filing and sorting; simple report creation; and tables. Prerequisite: BOTE 127, CSCI 120.

BIT 342 Web Site Design 3 cr. Web site design will give students skills to plan and develop well-designed Web sites that combine effective navigation with the balanced use of graphics, text, and color. Students will learn how to use software packages for creating graphics, attractive Web sites and powerful Web-based applications. Prerequisite: BOTE 127, BIT 235, BIT 236.

BIT 356 Business Data Communications 3 cr. Introduces business data communications including concepts, network architecture, data communication software and hardware, distributed information systems, and business communication service systems services. NOTE: This course must be taken by MIS majors prior to enrolling in CSCI 340, Local Area Networks. CSCI 440 cannot be substituted for BIT 456.

BIT 370 E-Commerce Technology 3 cr. E-commerce is the fastest growing segment of the world economy. In this course, students learn about the Internet as a business tool, a medium of business-to-business transactions, and a strategy for gaining competitive advantage; and exploring the unique challenges of managing a global digital enterprise. The E-commerce course has been designed to give the student the tools necessary to compete in the global market via the Internet. A business web site will be created. Prerequisite: BIT 235, 320.

BIT 385 Technology Management 3 cr. Introduces the student to hardware/software selection, trouble shooting in a lab, and managing a network. Attention also given to advanced methods and strategies for classroom instruction using technology. Prerequisite: BOTE 127.

BIT 391 Methods of Teaching Business 3 cr. Emphasizes the development of competencies in preservice teachers that may apply to the teaching of any business course. Special emphasis placed on computer applications, various instructional strategies, and course planning. Students also complete a 30-hour practicum experience during this course. Prerequisite: Admission to teacher education.

BIT 421 Philosophy of Vocational Education 2 cr. Addresses the history, growth, legislation (past and present), and elements of vocational education. Students research principles and practices of vocational business education and its relationship to general business education and other areas of vocational education. Visitation to local vocational education facilities and guest presentations dealing with current vocational topics are included. Prerequisite: junior status.

BIT 423 Offc. Educ. Coord. Tech. & Supervision of Office Education 2 cr. A study of the composition of office cooperative and laboratory work experience programs. Principles in developing methods and materials as well as the utilization of community resources are presented. Prerequisite: junior status.

BIT 452 Database Program Development 3 cr. Course studies database systems as they are used in today's businesses. The course covers database applications in a client server environment. Emphasis on integration of SQL, VB, and Access programming concepts. Prerequisite: BIT 312.

BIT 453 Systems Analysis 3 cr. Course introduces business information systems analysis and logical systems specifications. Discussion includes the interactive nature of systems analysis and the use of both automated and nonautomated tools. Prerequisite: senior status or consent of instructor. NOTE: Both BIT 453 and BIT 454 must be taken in the same learning environment, either on-campus or online.

BIT 454 Systems Design 3 cr. Presents the formalization of the business information design process. Students use automated design tools to solve real-world information systems problems. Prerequisites: BIT 453. NOTE: Both BIT 453 and BIT 454 must be taken in the same learning environment, either on-campus or online.

BIT 460 Current and Emerging Issues in MIS 3 cr. Designed to introduce students to technology issues and trends in the corporate MIS environment. Topics may include contemporary issues in communication, hardware/software, e-business, information systems, and career opportunities. Prerequisites: Senior status, restricted to MIS majors and minors.

BIT 470 Projects in MIS 3 cr. Students will apply concepts learned from courses taken in COB core and MIS core to real world projects. The students may be involved in the creation/modification of an information system, database, and/or web page for a business. Prerequisite: Senior status. Restricted to MIS majors.

BIT 497 Internship 3-6 cr. Participation in an internship allows the student to combine an on-the-job learning experience with related academic coursework to compliment the total educational experience, thus allowing the student to document and accumulate work experience to be upon graduation in pursuit of a career. Prerequisite: Senior status, restricted to MIS majors.

BIT 499 Special Topics 1-3 cr. Topics will vary from year to year.

CHEMISTRY

CHEM 110 Survey of Chemistry 4 cr. An introductory course covering topics that concern students' everyday lives. This course is designed for liberal arts and general education students. The course consists of an introduction to the science and includes historical perspectives. The course is intended to present chemistry in its broad cultural, social, and economic context. Lecture, 3 hours; laboratory, 2 hours.

CHEM 115 & 115L Introductory Chemistry 4 cr. Presents knowledge of concepts of chemical principles in greater depth and with more mathematical applications than in CHEM 110. Includes studies of general inorganic principles. Lecture, 3 hours; laboratory, 2 hours. Corequisite: MATH 102 or 103.

CHEM 121 & 121L General Chemistry I 5 cr. This course is the first of a two-semester sequence primarily intended for students majoring in science and science-related fields. Topics likely to be covered in this semester include: matter, measurement, atoms, ions, molecules, reactions, chemical calculations, thermochemistry, bonding, molecular geometry, periodicity, and gases. Lecture, 3 hours; recitation, 1 hour; laboratory, 3 hours. Corequisite: MATH 103. Note: CHEM 121 and CHEM 121L must be taken concurrently.

CHEM 122 & 122L General Chemistry II 5 cr. This course is the second of a two-semester sequence primarily intended for students majoring in science and science-related fields. Topics likely to be covered in this semester include: intermolecular forces, liquids, solids, kinetics, equilibria, acids, bases, solution chemistry, precipitation, thermodynamics, and electrochemistry. Lecture, 3 hours; recitation, 1 hour; laboratory, 3 hours. Prerequisite: CHEM 121 and CHEM 121L. Note: CHEM 122 and CHEM 122L must be taken concurrently.

CHEM 220 Descriptive Inorganic Chemistry 3 cr. This course is intended for students majoring in chemical education and is designed to acquaint students with a working knowledge of the reactions and properties of inorganic compounds. Offered on demand. Lecture, 2 hours; laboratory, 2 hours. Prerequisites: CHEM 122, CHEM 122L and MATH 103.

CHEM 230 Quantitative Analysis 5 cr. A course in quantitative chemistry including gravimetric and volumetric analysis, statistical treatment of data, and an introduction to some instrumental analysis. Lecture, 3 hours; laboratory, 6 hours. Prerequisites: CHEM 122 and CHEM 122L.

CHEM 240 Fundamentals of Organic Chemistry 5 cr. Theory of bonding and structure in organic molecules and their reactions. An emphasis on functional groups related to biological molecules. This course presents the minimum preparation for CHEM 480. Offered in the fall. Lecture, 4 hours; laboratory, 2 hours. Prerequisites: CHEM 122 and CHEM 122L.

CHEM 341 Organic Chemistry I 5 cr. A study of the different classes of organic functional groups, their nomenclature, reactions, and properties. An introduction to Infrared and Nuclear Magnetic Resonance Spectroscopy is included. Offered in the fall. Lecture, 3 hours; laboratory, 3 hours; recitation, 1 hour. Prerequisites: CHEM 122 and CHEM 122L.

CHEM 342 Organic Chemistry II 5 cr. A continuation of CHEM 341. A study of the chemical and mechanistic properties of organic functional groups. Offered in the spring. Lecture, 3 hours; laboratory, 3 hours; recitation, 1 hour. Prerequisite: CHEM 341.

CHEM 360 Principles of Physical Chemistry 4 cr. This course is designed for students interested in chemical education at the secondary level. Topics include gas laws, thermodynamics, equilibria, kinetics, quantum mechanics, and spectroscopy. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: CHEM 230 and MATH 107.

CHEM 380 Environmental Chemistry 4 cr. The course examines the interaction of chemical substances with the environment. Emphasis is placed on water quality and air quality. Offered alternate years. Lecture, 3 hours; laboratory, 3 hours. Prerequisite: CHEM 230.

CHEM 420 Inorganic Chemistry 3 cr. An advanced course in inorganic chemistry, including theories of covalent and ionic bonding, crystalline structure, coordinate covalent bonding, group theory, and coordination chemistry. Offered alternate years. Lecture, 3 hours. Prerequisite: CHEM 122, MATH 165.

CHEM 422 Inorganic Synthesis 1 cr. Applied techniques in inorganic synthesis and compound characterization. Laboratory, 3 hours. Prerequisite: Consent of instructor. Corequisite: CHEM 420.

CHEM 430 Instrumental Analysis 5 cr. A survey of instrumental methods used for chemical analysis. These methods include molecular absorption, atomic absorption and emission, fluorescence and phosphorescence, infrared absorption chromatography, nuclear magnetic resonance and mass spectrometry. Offered alternate years. Lecture, 3 hours; laboratory, 6 hours. Prerequisite: CHEM 230.

CHEM 440 Organic Spectroscopy 3 cr. Identification of organic molecules via spectroscopic methods. Methods studied include infrared, UV-visible, proton and carbon-13 nuclear magnetic resonance, and mass spectrometry. Offered alternate years. Lecture, 2 hours; laboratory, 2 hours. Prerequisite: CHEM 342.

CHEM 461 Physical Chemistry I 4 cr. This course is the first of a two-semester sequence of calculus-based physical chemistry for chemistry majors. Topics covered include thermodynamics and equilibrium. Offered alternate years. Lecture, 3 hours; laboratory, 3 hours. Prerequisites: CHEM 122, MATH 166, and PHYS 222.

CHEM 462 Physical Chemistry II 4 cr. A continuation of CHEM 461. Topics include: quantum mechanics, molecular orbital theory, group theory, and spectroscopy. Offered alternate spring terms. Lecture, 3 hours; laboratory, 3 hours. Prerequisite: CHEM 461.

CHEM 480 Biochemistry 3 cr. Study of major classes of biological compounds, synthesis of macromolecules, enzyme kinetics, intermediary metabolism, and control mechanisms. Lecture, 3 hours. Prerequisite: CHEM 240 or 342.

CHEM 480L Biochemistry Laboratory 2 cr. A course covering theory and laboratory experience with a variety of techniques used in biochemistry. Laboratory, 6 hours. Prerequisite: CHEM 230. Corequisite: CHEM 480.

COMMUNICATION ARTS/ BROADCASTING

COMM 099 Recitals 0 cr. This is a zero credit course required of all communication arts majors and minors, and **is required each semester in attendance.** It is designed to accumulate information about each student's required attendance at pre-designated communication arts department recitals.

COMM 110 Fundamentals of Public Speaking 3 cr. The theory and practice of public speaking with emphasis on topic selection, content, organization of material, language, methods of securing attention and maintaining interest, delivery and critical evaluation of informative and persuasive messages. May not be used as part of communication arts major, minor, or concentration.

COMM 120 Introduction to Broadcasting 3 cr. Basic introduction to commercial and non-commercial broadcasting.

COMM 210 Advanced Public Speaking 3 cr. An advanced course in the art of oral discourse. Emphasis is placed on special types of speaking, audience adaptation, logic, persuasion, and rhetorical analysis. Prerequisite: COMM 110 or consent of instructor.

COMM 212 Interpersonal Communication 3 cr. Introduces fundamental concepts of communication between individuals. Exploring aspects of self-expression, relationship communication—how people present themselves, and how others perceive them in return.

COMM 220 Broadcast Advertising and Applications 3 cr. This course will examine, through research and field experience, the fundamental elements of electronic advertising practices and applications. Students will learn success factors that increase the power of advertising through mass media. Restricted to sophomore, junior, and senior status.

COMM 224 Publication Makeup and Design 3 cr. Introduction to the technical aspects of newspaper, magazine, and yearbook production.

COMM 225 Audio Production I 3 cr. Laboratory and lecture course with emphasis on the principles and techniques of radio production and programming.

COMM 244 Reporting and Feature Writing 3 cr. Introduction to news gathering, judgment, writing, history, conventions and style of the news story, the newspaper feature story, and the magazine article.

COMM 281 Reporting and Editing 1 cr. Laboratory course in which class members work on the campus paper and attend staff meetings. Repeatable up to eight credits.

COMM 282 Yearbook Editing 1 cr. Laboratory course for members of University yearbook staff. Repeatable up to eight credits.

COMM 283 TV Activities 1 cr. An opportunity for students to work on various video projects that they will produce for on and off campus. Repeatable up to eight credits.

COMM 284 Radio Activities 1 cr. An opportunity for students to work on various audio projects that they will produce for on and off campus groups. Repeatable up to eight credits.

COMM 285 Communication Arts Activities 1 cr. The participation in a significant capacity in any communication arts activity above and beyond the requirements of a specific course. Repeatable up to eight credits.

COMM 304H Communication and Popular Culture 3 cr. Includes analysis of audience, occasion, subject and speaker. Subject matter will include such media as movies, songs, television, humor, fashion, public demonstration, advertisements, architecture, etc. Includes text readings, group discussion, analytical essays, and a critical paper and presentation. Prerequisite: Admission to Honors Program or a 3.30 cumulative GPA or permission of the instructor.

COMM 311 Oral Interpretation 3 cr. The study of literature for performance with emphasis on written and verbal analysis. The technique of performance applied to oral reading of literature.

COMM 315 Persuasion and Argumentation 3 cr. An investigation of the structure, types, and tests of arguments with practical application in preparing and presenting persuasive speeches. Prerequisite: COMM 110 or consent of instructor.

COMM 316 Group Dynamics 3 cr. Study of techniques of group discussion and small group theory with emphasis on participating in various types of discussion and conferences.

COMM 317 Rhetorical Theory 3 cr. A study of the development of rhetorical critical standards and practices from ancient times to the present.

COMM 320 Public Relations Principles 3 cr. An introduction to the theory and practice of public relations, emphasizing management functions, its publics, writing skills, communications process, tools, and professional ethics.

COMM 322 Broadcast Sales 3 cr. A close up look at the business of broadcast advertising, including radio, TV, and cable.

COMM 323 Journalism History 3 cr. Examination of the news gathering function of the mass media with special emphasis on press theory and the development of thought of freedom of expression.

COMM 325 Campaigns and Strategies 3 cr. This course will explore marketing, public relations, and advertising relationships in today's market. The textbook, classroom lectures, guest speakers, and assignments will build a solid foundation in the fundamentals needed to develop and implement campaigns and strategies in the field of public relations, advertising, and marketing. Prerequisite: COMM 320.

COMM 326 Media Announcing 3 cr. Theories, practices, and techniques of "on-air" presentation will be the focus of this course. Students will develop the skills necessary to perform a variety of media announcing tasks. Students will study the techniques and styles required to perform as media newscasters, interviewers, program hosts, commercial and public service announcers. Prerequisite: COMM 120 or consent of instructor.

COMM 327 Editing and Advising 3 cr. Introduction to the problems of administering and advising publications (especially student publications).

COMM 360 Video Production I 3 cr. Emphasis on the operation of video, audio, and editing equipment. Prerequisite: COMM 120.

COMM 361 Broadcast News Writing 3 cr. Intensive survey and application of gathering, writing, and presenting.

COMM 362 Electronic News Gathering 3 cr. An introduction to the practical knowledge of basic electronic news gathering production techniques, as well as to learn to operate equipment associated with ENG. Students will learn the correct terminology and the basic formats of ENG. Prerequisite: COMM 360.

COMM 389 Directing Forensics 2 cr. Theory, philosophy, and practice in speech contest/festival design and of coaching individual forensic events and debate. Designed for the teacher who will be asked to coach speech on the secondary level. May be taken at the same time as student teaching.

COMM 390 Communication Arts Methods 3 cr. Methods and materials for creative teaching of speaking, listening, and theatre and broadcast activities, in today's secondary school environment. Prerequisites: Admittance to Teacher Education and ED 320.

COMM 392 Junior Project 1 cr. The course will include proposal writing procedures and defense, journal writing, research as dictated by the individual's project, public relations policies leading to the public presentation of a recital. All in preparation for the Senior Recital.

COMM 397 Communication Arts Practicum 3 cr. Student Internship with application of specialized techniques in broadcasting, theatre, or other areas of communication arts.

COMM 410 Advanced Problems 3 cr. Courses beyond the present offerings in broadcasting, speech communication, and theatre arts. No more than three courses may be accrued.

COMM 412 Communication Law 3 cr. A study of the regulatory policies (federal, state, and municipal) in modern electronic and print media.

COMM 413 Gender Communication 3 cr. Course designed to explore the theories surrounding differences and similarities in male and female communication. Focus on ways in which gender roles originated and are sustained in a variety of contexts including families, organizations, institutions, peer groups, the media, and interpersonal relationships.

COMM 420 Media as a Social Institution 2 cr. Basic communication theory and its application to mass communication with emphasis on social, cultural, and political implication of the media.

COMM 460 Video Production II 3 cr. Use of TV video, audio, and editing equipment in various news and commercial applications. Prerequisite: COMM 360.

COMM 475 Broadcast Production 1-3 cr. The operations, techniques, and practices of broadcast production. Activities include originating, acquiring, organizing, and assembling news segments into a complete television program. Can be repeated for up to 8 cr. Prerequisite: COMM 360.

COMM 492 Senior Project 3 cr. Special project undertaken during the senior year with the direct supervision of an instructor. Projects may be chosen from any area of the communication arts department. Prerequisites: COMM 099, 392, and consent of faculty.

COMM 497 Broadcast Practicum 4 cr. Internship in the mass communication field allowing the students to put into practice, in a professional setting, those techniques and theories learned in their coursework. Prerequisites: Completion of 40 credits in communications with a 2.75 GPA in major.

COMMUNICATION DISORDERS

CD 025 Speech Improvement 1 cr. Therapy for those needing remedial assistance for problems with articulation, fluency, hearing, voice, and/or language disorders.

CD 310 Introduction to Speech-Language Pathology 3 cr. A survey of various communication disorders: language, phonology, fluency, voice, hearing impairment, cleft palate, cerebral palsy, aphasia. Ten hours of clinical observation are required.

CD 320 Introduction to Phonetics 3 cr. A study of the sounds of American English and the use of the International Phonetic Alphabet (IPA) to record normal and disordered articulatory production. Five hours of clinical observation are required.

CD 321 Language Development 3 cr. The study of those events and processes which combine in relatively predictable and observable ways and are evidenced in the acquisition of language. For majors.

CD 322 Introduction to Articulatory-Phonological Disorders 3 cr. A study of normal articulatory phonological development and the types, causes, and treatment of Articulatory-Phonological disorders. Ten hours of clinical observation are required. Prerequisites: CD 310, 320.

CD 324 Techniques in Speech-Language Pathology 3 cr. Therapy approaches and techniques for planning and carrying out clinical practicum. This course includes a required laboratory experience and is a prerequisite for CD 411. Prerequisite: CD 322.

CD 331 Language Disabilities in Children 3 cr. The study of deviant language patterns and language patterns associated with cultural diversity. Language evaluation with emphasis on linguistic analysis and the development of language programming appropriate to language problems will be covered. Prerequisite: CD 321.

CD 341 Speech and Hearing Science 2 cr. Fundamentals of acoustics, speech production, speech perception, and basic instrumentation. Prerequisite: CD 310.

CD 342 Introduction to Audiology 4 cr. A study of the basic tests of hearing with emphasis on test administration and interpretation. It includes anatomy and physiology of the auditory system and its relationship to various types and degrees of hearing loss.

CD 411 Clinical Practicum 2-4 cr. Supervised practicum in a clinical setting. Students must enroll for a minimum of 4 credits, usually two per semester. Prerequisite: CD 324.

CD 412 Anatomy, Neurology, and Physiology of the Communication System 4 cr. An anatomical and physiological study of the head, neck, and thorax, the central and peripheral nervous systems, emphasizing the relationship of these systems to the total communication process. Prerequisite: BIOL 220, BIOL 221, CD 310, CD 341.

CD 420 Advanced Communication Disorders 3 cr. Overview of management strategies for treating people with cleft palate, stuttering, voice disorders, and other neurologically based communication disorders.

CD 426 Speech Language Development and Disorders for the Teacher 4 cr. The study of speech language development and disorders of children. Inter-relationships among personal, social, academic, speech and language skills are covered. Academic modifications and coordination with specialized personnel are emphasized. For non-majors.

CD 427 Aural Rehabilitation 3 cr. Study of the rehabilitative philosophies and methodologies with hearing impaired individuals.

CD 430 Public School Methods in Speech-Language Pathology 2 cr. A survey of past and present issues faced by the public school speech-language pathologist. Prerequisite: CD 310.

COMPUTERSCIENCE

CSCI 101 Introduction to Computer Science 3 cr. Introduction to structured programming, integrated environments, and DOS basics. No prerequisite. Lecture, 2 hours; laboratory, 2 hours.

CSCI 120 Computer Programming I 3 cr. Introduction to programming in a high-level language. Emphasis on problem solving and logical thinking. Design, implementation and testing of programs for small-scale problems using elementary data types and control structures.

CSCI 122 Visual Basic 4 cr. An introduction to programming in the Visual Basic language.

CSCI 124 Introduction to C++ 4 cr. An introduction to programming using the C++ language. Prerequisite: CSCI 101.

CSCI 126 Introduction to FORTRAN 2 cr. Introduction to computer programming using the FORTRAN language. Prerequisite: CSCI 101 or BOTE 230 or equivalent knowledge of DOS.

CSCI 127 Beginning JAVA 4 cr. An introduction to programming in the Beginning JAVA language.

CSCI 128 Introduction to Pascal 3 cr. The Pascal language, including pointers. Prerequisite: CSCI 101 or equivalent knowledge of DOS.

CSCI 160 Data Structures and Algorithms I 3 cr. Stacks, queues and lists. Searching and sorting algorithms Beginning performance analysis. Prerequisite: CSCI 174.

CSCI 161 Data Structures and Algorithms II 3 cr. Performance analysis: categories of algorithms. Prerequisite: CSCI 160.

CSCI 174 Intermediate C++ 3 cr. Intermediate level programming in the C++ language. Prerequisite: CSCI 124.

CSCI 177 Intermediate JAVA 4 cr. Intermediate level programming in the JAVA language. Prerequisite: CSCI 127.

CSCI 250 Computer Architecture/Assembler Language 3 cr. Principles of organization as implemented in a current system, assembler language, data representations, procedures, and procedure linkage conventions. Prerequisite: CSCI 124.

CSCI 260 UNIX Environment 3 cr. An introduction to the UNIX environment. Basic tools and utilities. Shell programming. Prerequisite: CSCI 124.

CSCI 299 Special Topics 1-4 cr.

CSCI 321 Windows Programming 3 cr. Development of applications for the Windows environment and use of a standard library and its classes. Prerequisite: CSCI 174.

CSCI 330 Software Design 2 cr. Implementation of large-scale software exercises. Discussion of the principles of program engineering. Methods for managing software projects. Prerequisite: CSCI 160.

CSCI 340 Local Area Networks 3 cr. Introduction to the design and management of local area networks. Emphasis is placed on laboratory work. Prerequisite: CSCI 124.

CSCI352 Comparative Languages 3 cr. Comparison of procedural and non-procedural languages. Study of strengths and weaknesses of languages for solving various problems. Introduction to implementation issues such as memory allocation. Prerequisite: CSCI 160.

CSCI356 Database Management 3 cr. Principles of database design and programming. Relational, network and hierarchical models. Inverted files, searching and sorting key maintenance. Prerequisite: CSCI 124 or equivalent.

CSCI360 Systems Programming 3 cr. Programming using interrupts and operating systems services. Device driver implementation. Brief comparison of different hardware systems. Prerequisite: CSCI 250.

CSCI391 Teaching Computer Science 2 cr. Classroom management and equipment. Analysis of student difficulties, survey of current literature, observation and practicum. Prerequisites: CSCI 160, CSCI 250 and admission to Teacher Education.

CSCI 394 Independent Study 1-4 cr.

CSCI440 Data Communications 3 cr. Network administration and management of data protocols and models, basic configurations, software, hardware, routing and applications. Prerequisite: CSCI 340.

CSCI450 Operating Systems 3 cr. Design and implementation of operating systems. Study of the control of and communication between interacting processes. Resource allocation and management in a multiprogramming environment. Prerequisite: CSCI 360.

CSCI452 Compiler and Interpreter Construction 3 cr. Theory and practice of program translation. Lexical and syntactic analysis, error detection and response, optimization. Prerequisites: CSCI 250 and CSCI 352.

CSCI454 Computer Graphics 3 cr. Two dimensional graphics; window, viewpoint, and clipping, geometrical transformations, line and character generation, display hardware, projecting three dimensional objects and hidden line removal. Prerequisites: CSCI 160, CSCI 250, and MATH 305.

CSCI456 Database Administration 3 cr. The administration and maintenance of medium-scale and large-scale database systems. Prerequisite: CSCI 356.

CSCI497 Internship 2-8 cr. Supervised professional experience in computing applications. A maximum of 2 credits may be counted toward a major or minor. May be repeated up to a total of 8 credits. Grading is pass/fail. Prerequisite: Departmental Approval.

CSCI 499 Special Topics 1-4 cr.

CRIMINAL JUSTICE

CJ 120 Introduction to Criminal Justice 3 cr. Examines the criminal justice process, including legislative law-making, law enforcement, prosecution, the courts, and corrections; highlights contemporary issues and landmark cases influencing case processing at different stages throughout the criminal justice system; familiarizes students with the Bill of Rights and Amendments critical to law enforcement, evidentiary issues, and correctional procedures; a basic survey and prerequisite for all criminal justice courses.

CJ 230 Criminal Law 3 cr. A critical examination of the development and function of Western criminal law; analyzes current definitions of criminal acts and omissions, defenses and justifications in the social and legal society of the United States; illustrates the development of legal interpretations of criminal statutes through the use of current and historical U.S. Supreme Court and state court decisions. Prerequisite: CJ 120.

CJ 299 Special Topics 3 cr. Independent investigations of topics of special interest related to criminal justice. Topics may vary to reflect contemporary criminal justice issues. Prerequisite: CJ 120.

CJ 300 Policing and Police-Community Relations 3 cr. An historical examination of the evolution of the role of police in Western culture; included are the philosophical, social, legal, political, educational and religious influences on the purpose of police power of the state; examines current and future trends, research and practices that are developed for the policing function; discusses the social and individual effects of police work in Western society. Prerequisite: CJ 120.

CJ 320 Probation, Parole, and Intermediate Punishments 3 cr. Distinguishes between probation and parole; examines community corrections options, including home confinement, electronic monitoring, intensive supervised probation/parole; uses of volunteers and paraprofessionals; presentence investigation report preparation; probation/parole officer work roles, duties; functions of jails; recidivism of clients; contemporary community correctional issues. Prerequisite: CJ 120.

CJ 330 Criminological Theory 3 cr. Provides an examination of the major criminological schools of thought as well as the prominent theorists within each school; theories are presented that examine criminal motivation and the application of criminal law; additionally, the implicit theoretical assumptions regarding the punishment of offenders is examined.

CJ 340 Juvenile Justice System 3 cr. Illustrates major components of juvenile justice system, including arrest, intake, adjudication, and disposition of juvenile offenders; examines transfer process for treating juveniles as adults; describes landmark legal cases extending rights to juveniles; examines juvenile court organization as an adversarial system; treatment of contemporary juvenile justice issues, including death penalty for juveniles and deinstitutionalization of status offenders. Prerequisite: CJ 120.

CJ 345 Policy Issues in Criminal Justice 3 cr. Assessment of the development, efficacy, and politics of criminal justice policy. Emphasis on analyzing the formulation, implementation, and evaluation of criminal justice policy. Prerequisite: CJ 120.

CJ 362 Women in the Criminal Justice System 3 cr. Examines the nature and extent of female offenders, victims in the criminal justice system. The course will provide students with an understanding of the processing of women offenders through the criminal justice system. Students will also become familiar with the theoretical concepts focusing on female criminality and victimization. Prerequisite: CJ 120.

CJ 365 Law and Society 3 cr. Examination of the various perspectives on the development and implementation of law and assessment of the various facets of law in action. Prerequisite: CJ 120.

CJ 370 Court Processing and Sentencing 3 cr. Provides students with a comprehensive analysis of the U.S. court system; the functions of state and federal district, appellate, and supreme courts is reviewed; students are introduced to the influence of extra-legal factors and their differential impact on offender processing; contemporary criminal justice issues facing the court system are also examined. Prerequisite: CJ 120.

CJ 375 Gangs 3 cr. Explores gang phenomena in U.S.; concentrates on recent research about gang formation and gang related violence including the various criminological theories that explain the social, economic, political, and environmental reasons for the rise of gangs in various American urban centers. Prerequisite: CJ 120.

CJ 380 Corrections 3 cr. Examines institutionalization of convicted offenders; describes jails and prisons; investigates issues including privatization of prison operations, inmate labor, overcrowding, inmate gang formation and culture, and inmate rights; correctional officer duties/training/responsibilities are described; examines post-institutionalization experiences of released inmates in community programs; examines classification systems used to determine one's level of custody; describes different types of prisons/jails and their functions. Prerequisite: CJ 120.

CJ 385 Terrorism 3 cr. Explores terrorism from an international and national perspective; examines the social, political, and cultural reasons for terrorism including the law enforcement's fight against terrorism in the U.S. Prerequisite: CJ 120.

CJ 394 Independent Study 3 cr. Intensive study of substantive interest areas of students; major literature review leading to analytical paper; topics chosen collaboratively by student and instructor/advisor. Prerequisite: consent of instructor.

CJ 395 Victims and Victimology 3 cr. The course provides a student's overview of the characteristics and trends of victims in a variety of settings, and the criminal justice system's perception and response to these individuals. Prerequisite: CJ 120.

CJ 399 Readings 3 cr. Readings in a specialty area of criminal justice culminating in a summary paper of significant research, findings, and interpretations. Prerequisite: CJ 120.

CJ 410 Administration of Criminal Justice Systems 3 cr. Overview of organizational theory as it applies to the administration of Criminal Justice agencies. Emphasis on criminal justice management theory and policy development. Prerequisite: CJ 120.

CJ 450 White-Collar Crime 3 cr. Categories of job offending are analyzed through criminological theory, law, and the criminal and regulatory justice systems, including corporate crime, professional crime, individual crime, and crime by state workers. Traditional and novel strategies for the social control of these offenses are also presented. Prerequisite: CJ 120.

CJ 490 Role Conflict and Performance Dilemmas in Criminal Justice 3 cr. Criminal justice professionals face various potential role and value conflicts in the enforcement of laws and offender processing; this course exposes students to the conceptual and theoretical issues involved in the field of value conflict; this course will focus upon real-life and hypothetical value dilemmas faced by criminal justice practitioners. Prerequisite: CJ 120.

CJ 491 Senior Seminar 1 cr. Integration of program outcomes with application of knowledge, values, and skills necessary for field entry, value and ethical considerations, and the development and implementation of future career objectives. Provides application of core courses, provides students with current developments in key core areas. Prerequisite: must have completed all CJ core courses.

CJ 497 Field Experience 3 or 6 cr. Student practicum in a criminal justice or related agency; course may be repeated in either the same or different agency; designed to enhance these experiences, supplementary readings and written assignments are required. Prerequisites: consent of instructor; all core requirements must be completed before enrolling; may be repeated once for 3 credit hours. Prerequisite: CJ 120.

CJ 499 Special Topics 3 cr. Specialized topics offered as regular classes; topics vary depending upon student and faculty interest. Prerequisite: CJ 120.

DRIVER TRAFFIC SAFETY

DTS 225 Introduction to Safety Education 1 cr. Promotes general safety with special emphasis on school bus safety, fire safety and tornado safety.

DTS 230 Driver and Traffic Safety Education 3 cr. Introduction to driver and traffic safety education. A review of various high school textbooks and other teaching tools.

DTS 250 Defensive Driving 1 cr. Classroom course that is a part of the National Safety Council's Driver improvement program. Successful completion allows a three point reduction on a licensee's driving record.

DTS 260 Teenage Driving Behavior Problems 2 cr. Teaches prospective driver educators about the past problems concerning teenage traffic offenders. Assists driver educators in adjusting classroom presentations to address problems with beginning teenage drivers.

DTS 350 Advanced Driving 1 cr. Advanced driving to improve skills, perception, decision making, and general driving ability.

DTS 390 Traffic Law 3 cr. Study of the Code 39 of North Dakota Motor Vehicle laws. Designed to develop an understanding of traffic law in modern society.

DTS 450 Organization and Administration of Safety Education 2 cr. Basic concepts and development of the four phase program: dual controlled car, simulator, multiple car driving range, and classroom. Prerequisite: DTS 230.

DTS 452 Instruction in Range, Simulator and In-Car 3 cr. Instruction in the use of electronic driving simulator, equipment, multiple care driving range, and dual controlled car. Prerequisite: DTS 450.

DTS 454 Driver Education for the Disabled 2 cr. Instruction in dual-controlled cars with special hand controls for teaching the handicapped. Prerequisite: DTS 450.

ECONOMICS

ECON 201 Principles of Microeconomics 3 cr. Supply and demand, price and output determination in the product and resource markets, consumer demand, elasticity, costs and profits, and intentional trade.

ECON 202 Principles of Macroeconomics 3 cr. Nature, method, and scope of economic analysis; nature of economic growth; inflationary tendencies and unemployment, monetary and fiscal policies, international finance. (May be taken before 201.)

ECON 311 Agricultural and Land Economics 3 cr. Analysis of production in agricultural industry, agricultural markets, government price support programs, farm income and farm structure, world demand for food and competition for world markets. Prerequisites: ECON 201 and 202.

ECON 312 Price Theory 3 cr. Analysis of individual consumer demand, principles of production, costs, pricing and output decisions under different market structures. Prerequisites: ECON 201 and 202.

ECON 314 National Income Analysis 3 cr. Study of major movements in national income, production, employment, price levels, as well as policy related to growth and equilibrium. Prerequisites: ECON 201 and 202.

ECON 315 Labor Economics 3 cr. Survey of labor-management relations that examines the policies and objectives of labor unions and their impact on the broader society, and includes union history and government, organizing and bargaining, economics of the labor market and wage determination, government control and major laws that affect labor-management relations. Prerequisites: ECON 201 and 202.

ECON 316 Economics of Investment 3 cr. Introductory study of security analysis and basic investment principles with special attention given to problems of the individual investor. Prerequisites: ECON 201 and 202.

ECON 318 Money and Banking 3 cr. Nature and functions of U.S. depository institutions (especially commercial banks, savings and loans, and credit unions); their regulation with particular emphasis on the Federal Reserve System's monetary policy and instruments of control and an introduction to monetary theory. Prerequisites: ECON 201 and 202.

ECON 320 Economics of Natural Resources 3 cr. Study of the supply of and demand for natural resources. Optimal development, use and conservation of natural resources, benefit and cost analysis, public and private ownership and control of natural resources are also examined. Prerequisites: ECON 201 and 202.

ECON 410 Managerial Economics 3 cr. Industrial Organization (IO) covers theoretical and empirical studies of industry structure, conduct, and performance. Modern IO introduces and applies game theory to investigative strategic business behavior in imperfectly competitive markets such as monopoly, oligopoly and monopolistic competition. Topics include collusion and cartels, contestable markets, entry barriers and deterrence, concentration and performance, vertical integration, price discrimination, product differentiation and spatial markets, as well as government regulation. Prerequisites: ECON 201 and 202.

ECON 411 Public Finance 3 cr. Study of tax systems and other sources of revenue of federal, state, and local governments; changing patterns of public expenditures; fiscal and monetary policy; debt management and economic effects of public policy. Prerequisites: ECON 201 and 202.

ECON 414 International Economics 3 cr. Study of the causes of international trade, classical and neoclassical models of international trade, the movement of money, goods, and factors of production over national boundaries, role of trade barriers and balance of payments. Prerequisites: ECON 201 and 202.

ECON 416 Business Cycles 3 cr. Study of business fluctuations in the American economic system, the causes as viewed by economic theorists, and the measures which aid in stabilization of fluctuations, and macroeconomic forecasting are given attention. Prerequisites: ECON 201 and 202.

ECON 418 History of Economic Thought 3 cr. Study of evolution of economic thought under different social and political background, like mercantilism, physiocracy, classical economies, historical school and Socialist doctrines. Prerequisites: ECON 201 and 202.

ECON 419 Economic Planning and Development 3 cr. Study of basic techniques and methods in planning which facilitate various levels of economic development. The application of the planning strategies necessary to effect desirable economic development is also undertaken. Prerequisites: ECON 201 and 202.

ECON 497 Internship 3 cr. Student gains practical experience completing research and/or working on a team with a particular economic development project. Course is offered on a pass/fail basis. Prerequisite: ECON 419.

EDUCATION

ED 201 Introduction to Teaching 1 cr. An orientation to the teaching profession.

ED 310 Foundations of Education 3 cr. Study of the historical, philosophical, sociological, and psychological concepts that have impacted the development of American Public Schools. Pre- or corequisite: ED 201, PSY 111.

ED 320 Curriculum, Planning and Assessment 3 cr. The development of curriculum for the public schools and strategies for the planning, delivery and assessment of instruction. Prerequisite: Consent of instructor or admission to Teacher Education. Pre- or corequisite: ED 310.

ED 335 Early Childhood Education 3 cr. Study of early childhood learning theories, developmentally appropriate materials, classroom arrangement, observational techniques, and curriculum planning. Actual experiences with materials, observation, and field experience. Prerequisite: Admission to Teacher Education and ED 352. Corequisite: ED 320.

ED 352 Foundations of Reading 3 cr. Principles, techniques, and approaches for implementing a developmental reading program in the elementary school. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 360 Language Acquisition: The Child 3 cr. Language activity includes speaking, writing, reading and listening. Coursework will center on how language is acquired, the functions of language and how language develops. Examine how teachers can best support the growth of children as language learners and users. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 370 Handwriting Instruction 1 cr. Introduction to handwriting systems and instructional methodology. Elective.

ED 380 Technology in Teaching 2 cr. Strategies for the instructional uses of technology including multimedia presentation, e-mail, internet, spreadsheets, databases, and emerging technologies. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 402 Teaching Reading in Content Areas 2 cr. Designed for both secondary and intermediate grade teachers. Stresses the development and utilization of teaching skills through the content subjects. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 421 Elementary Mathematics Methods 3 cr. Practicum in teaching mathematics to children in cooperative learning groups through the use of manipulative materials, symbolic representations, and problem solving approaches. Observation and participation in a planned teaching experience in a school setting will illustrate and support the learning processes. Prerequisite: Admission to Teacher Education and ED 320. Corequisites: ED 320, MATH 277, MATH 377.

ED 422 Elementary Language Arts Methods 3 cr. Encompasses curriculum, theory, and methodology in language arts. Observation and participation in a planned teaching experience in a school setting will illustrate and support the learning processes. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 423 Elementary Reading Methods 3 cr. Principles, techniques, approaches and materials for teaching reading in grades K through 8. Observation and participation in a planned teaching experience in a school setting will illustrate and support the learning processes. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 424 Elementary Social Studies Methods 3 cr. Curriculum, theory, and methodology in the teaching of social studies. Observation and participation in a planned teaching experience in a school setting will illustrate and support the learning process. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 430 Preschool Curriculum and Activities 3 cr. Study of development of 4-7 year olds and procedures in preschool planning including teaching techniques and expressive materials for the campus preschool. Laboratory. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 440 Remedial Reading 3 cr. Diagnosis and treatment of children with reading difficulties. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 441 Clinical Practice in Remedial Reading 3 cr. Supervised practice in a clinical remedial reading situation. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 450 Middle School Philosophy and Curriculum 2 cr. Acquaints students with the philosophy of middle school education and current practices in middle school curriculum, instruction, and assessment. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 451 Middle School Teaching Strategies 3 cr. Designed to develop the skills and teaching strategies to implement a middle school program. Stresses teaming, thematic curriculum development, advising, and working with parents. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 460 Managing the Learning Environment 2 cr. Strategies for successfully creating a positive learning environment in the classroom; strategies for dealing with the disruptive student, strategies for creating positive parental involvement in student learning. Prerequisite: ED 320.

ED 470 Teaching Diverse Learners 2 cr. Adapting teaching strategies to cultural, ethnic, linguistic, developmental and physical differences in the classroom. Collaborating with related professions in individualizing instruction. Prerequisite: Admission to Teacher Education and ED 320. Corequisite: ED 320.

ED 480 Clinical Practicum in Education 1 cr. This course is designed to give education majors an opportunity to have 30 hours of practical experience. Placements in schools settings are arranged by the Teacher Advisement and Field Placement office. Prerequisite: Admission to Teacher Education, a methods class, and departmental approval.

ED 491 Student Teaching, Kindergarten 4-16 cr. Supervised teaching in kindergarten. Prerequisites: Recommendation by advisor, division/department chairperson, and TEAC; admission to Teacher Education; and completion of all other required education coursework.

ED 492 Student Teaching, Elementary 4-16 cr. Supervised teaching in elementary schools. Prerequisites: Recommendation by advisor, division/department chairperson, and TEAC; admission to Teacher Education; and completion of all other required education coursework.

ED 493 Student Teaching, Secondary 4-16 cr. Supervised teaching in secondary school. Prerequisites: Recommendation by advisor, division/department chairperson, and TEAC; admission to Teacher Education; and completion of all other required education coursework.

ED 494 Student Teaching, K-12 4-16 cr. Supervised teaching in both elementary and secondary levels in restricted areas. Prerequisites: Recommendation by advisor, division/department chairperson, and TEAC; admission to Teacher Education; and completion of all other required education coursework.

ED 495 Student Teaching, Special Areas 4-16 cr. Supervised teaching in special areas: mentally handicapped and education of the deaf. Prerequisites: Recommendation by advisor, division/department chairperson, and TEAC; admission to Teacher Education; and completion of all other required education coursework.

ED 497 Mentored Clinical Practicum 5-15 cr. This course is designed to provide a one year mentored clinical internship for classroom teachers. Prerequisites include departmental approval and emergency licensure by the Educational Standards and Practices Board of North Dakota.

ELECTRICAL ENGINEERING

EE 206 Circuit Analysis 3 cr. Introduction to electric circuit components. Steady state and transient analysis of DC and AC circuits. Electric power calculations. Lecture, 2 hours; laboratory, 2 hours. Corequisites: MATH 166 and PHYS 222.

ENGINEERING

ENGR 101 Engineering Graphics 3 cr. Lettering and sketching; pictorial and orthographic representations; uses engineering graphics computer software to create geometrical constructions; developments, technical practices; dimensions and tolerances; engineering drawing using computer; graphical analysis of engineering data; geographical calculus.

ENGR 201 Statics 3 cr. Vector approach to principles of statics. Resultants of force systems, equilibrium of force systems, analysis of structures, centroids, moments of inertia. Lecture, 3 hours. Corequisite: MATH 165.

ENGR 202 Dynamics 3 cr. Vector approach to principles of dynamics. Rectilinear and curvilinear translation, rotation, plane motion, force-mass-inertia, work-energy, impulse-momentum. Lecture, 3 hours. Prerequisite: ENGR 201. Corequisite: MATH 166.

ENGLISH

ENGL 110 College Composition I 3 cr. Guided practice in college-level reading, writing, and critical thinking. Emphasis on writing processes, and on approaches to critical reading. Does not apply toward the English major.

ENGL 111 Honors Composition I 3 cr. The first course in the honors curriculum, ENGL 111 takes the place of ENGL 110 and, if the student continues in the Honors Program, COMM 110 is required of all Honors Students earning the BSE degree. The course is reading intensive and encourages intellectual independence. Admission to the Honors Program is not a prerequisite, but ACT scores of 25 in reading and writing are required. Does not apply to the English major.

ENGL 120 College Composition II 3 cr. Advanced practice in college-level writing from sources and in applying rhetorical strategies. Emphasis on rhetorical strategies and incorporating research in academic writing. Does not apply toward the English major. Prerequisite: ENGL 110.

ENGL 121 Honors Composition II 3 cr. The second course taken in the honors curriculum. Replaces ENGL 120 in the general education program. Independent research and writing focuses on a rigorous study of literature. Prerequisites: ENGL 110 or 111; admission to Honors Program or permission of the Honors Director. Does not apply toward the English major.

ENGL 211 Introduction to Creative Writing 3 cr. Introduction to the form and craft of imaginative writing in fiction and poetry. Prerequisite: ENGL 120.

ENGL 220 Introduction to Literature 3 cr. Reading and discussion of literary forms such as the short story, the novel, poetry, and drama, with emphasis on common literary terminology. Prerequisite: ENGL 110.

ENGL 225 Introduction to Film 3 cr. Introduction to the aesthetic, technical, and social significance of selected films, with emphasis on understanding basic film vocabulary and narrative structure. Four studio hours per week.

ENGL 231 Bible as Literature 3 cr. Study of the Bible from a literary point of view. Prerequisite: ENGL 110.

ENGL 238 Children's Literature 3 cr. Introductory study of picture books and poetry; folk tales, fairy tales, myth, and legend; modern fiction, both realistic and imaginary; historical fiction; and biographical and informational books for children. Prerequisite: ENGL 110.

ENGL 240 World Literature Masterpieces 3 cr. The study of representative cultural and literary materials from ancient world to modern times. Prerequisites: ENGL 110.

ENGL 251 British Literature I 3 cr. A survey of British literature from the Anglo Saxon period through the 18th century. Prerequisite: ENGL 110.

ENGL 252 British Literature II 3 cr. A continuing survey of British literature from the Romantic period to the present. Prerequisite: ENGL 110.

ENGL 261 American Literature I 3 cr. A survey of American literature from the Puritans until the Civil War. Prerequisite: ENGL 110.

ENGL 262 American Literature II 3 cr. Continuing survey of American literature since the Civil War. Prerequisite: ENGL 110.

ENGL 265 Native American Literature 3 cr. The study of Native American Indian legends, poems, and stories with emphasis on contemporary writings. Prerequisite: ENGL 110.

ENGL 270 Introduction to Literary Studies 3 cr. The study of methods and assumptions of literary criticism, the reasons for and values of literary studies, and the formal academic discourse employed in English. Course serves as an introduction to the English major. Prerequisite: ENGL 120

ENGL 274 Literary Genres & Periods 3 cr. Survey of the history and development of English language and literatures from their origins to the present. Course serves as an introduction to the English major. Prerequisite: ENGL 120

ENGL 305 Approaches to Grammar 3 cr. Comparative study of descriptive English grammars, including traditional grammar, with emphasis on preparing teachers for the secondary schools. This is an upper division course designed to teach the systematic analysis of language. It is not designed to teach basic competencies in English usage. Prerequisite: ENGL 120.

ENGL 310 Advanced Composition 3 cr. Concentrated instruction and practice in expository writing. Prerequisite: ENGL 120.

ENGL 315 Professional and Technical Writing 3 cr. Concentrated instruction and practice in technical and job-related expository writing. Prerequisite: ENGL 120.

ENGL 317 Teaching Writing 3 cr. Study of methods of teaching writing with emphasis on contemporary theories. Prerequisite: ENGL 120.

ENGL 321 World Drama 3 cr. Study of significant dramatic literature from a wide variety of cultures and nationalities from the ancient world to the present. Prerequisites: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 338 Literature for Adolescents 3 cr. Introductory course in understanding and appreciating literature for the adolescent. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 351 British Novel I 3 cr. Study of the development of the British novel through the late 19th century. Emphasis on major figures. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 352 British Novel II 3 cr. Study of the development of the British novel from Hardy through contemporary novelists. Emphasis on major figures. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 354 Studies in British Poetry 3 cr. Advanced study of selected British poets. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 355 Age of Shakespeare 3 cr. Study of representative works of Shakespeare. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 361 American Novel I 3 cr. Study of the American novel in the 18th and 19th centuries. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 362 American Novel II 3 cr. Study of the American novel in the 20th century. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 364 Studies in American Poetry 3 cr. Advanced study of selected American poets. Prerequisite: ENGL 120. For English majors/minors ENGL 270 and ENGL 274 are also prerequisites.

ENGL 390 Language Arts Methods 4 cr. Theory and practice in teaching literature, composition and language in the secondary school. Includes practicum. Prerequisite: Admittance to Teacher Education.

ENGL 411 Advanced Creative Writing 3 cr. Concentrated instruction and practice in genre-specific imaginative writing. Prerequisites: ENGL 211 or consent of instructor

ENGL 435 Major Writers 3 cr. Intensive study of selected literary works by major authors. Authors and selections will vary from semester to semester. Prerequisites: ENGL 120 and one 300-level English course or consent of instructor.

ENGL 491 Senior Seminar 3 cr. In-depth study of literary figures or issues, emphasis to be determined by student/professor consultation. Prerequisites: Senior status or consent of instructor.

FRENCH

FREN 101 Beginning French I 4 cr. For beginners or those entering with one or two years of high school French. Introduction to listening, speaking, reading, writing, and culture.

FREN 102 Beginning French II 4 cr. A continuation of Beginning French I. Prerequisite: FREN 101.

FREN 201 Intermediate French I 4 cr. Review of basic French with increased practice in conversation, reading and writing. Prerequisite: FREN 102, three years of high school French or consent of instructor.

FREN 202 Intermediate French II 4 cr. Continuation of FREN 201. Prerequisite: FREN 201.

FREN 300 French Phonetics 2 cr. Theoretical and practical study of French phonetics. Practice in pronunciation and intonation. Prerequisite: FREN 202 or consent of instructor.

FREN 301 French Conversation and Composition 3 cr. Advanced practice in oral and written skills using cultural readings and other media. Prerequisite: FREN 202 or consent of instructor.

FREN 302 Introduction to French Literature 3 cr. Designed to improve language skills with an emphasis on reading and to enhance the student's ability to understand literature. Includes study of poetry, drama, and narrative from the French-speaking world. Prerequisite: FREN 202 or consent of instructor.

FREN 303 French Culture 3 cr. Readings in culture and society from the French-speaking world. Prerequisite: FREN 202 or consent of instructor.

FREN 401 Advanced Topics in French 3 cr. Topics will vary from year to year depending on student backgrounds and needs.

FREN 402 Genres or Periods in French Literature 3 cr. Study of a major genre or period in French literature. Topic varies from year to year.

FREN 450 Senior Capstone Project in French 3 cr. Individual research project on a cultural topic approved by the instructor one semester prior to enrollment in the course.

GEOGRAPHY

GEOG 110 Principles 3 cr. Study of geography in a modern context and its synthesizing role in relation to both physical and social sciences. Major emphasis is on the relationships between people and their environment, spatial interactions, and regional structures.

GEOG 161 World Regional 3 cr. A geographic survey of major world regions with emphasis on location, component countries, world role, distinctive physical and cultural characteristics, relation to other world areas, and major problems. The principal objective is to help alleviate the serious geographic illiteracy that many Americans have concerning the world in which they live.

GEOG 262 North America 3 cr. A thematic and regional approach to the geography of North America that stresses human patterns and relationships with the physical environment.

GEOG 263 North Dakota 3 cr. Study of the interrelationships that exist between North Dakota's physical and cultural environments. Specific topics include physiography, climate, flora, prehistoric occupation, historic development, demography, and economic structures.

GEOG 333 Meteorology 3 cr. A non-mathematical approach to observing and interpreting the processes that are responsible for weather events and their effects.

GEOG 334 Climatology 3 cr. Study of the global patterns of climatic variety and the opportunities and limitations these climatic patterns place on people.

GEOG 352 Economic Geography 3 cr. Study of the geographic factors involved in the production, exchange, and consumption of world commodities. Major economic activities of agriculture and mining are emphasized.

GEOG 355 Political Geography 3 cr. Study of the human struggle for space on land and water, including boundary and frontier problems as well as the relative strengths and weaknesses of nations.

GEOG 364 Africa 3 cr. Study of the natural regions of Africa with emphasis on the climate, physical and human resources, trade, culture and their effects upon world affairs.

GEOG 365 Monsoon Asia 3 cr. A regional study of Monsoon Asia, with special emphasis on China, Japan, and India. Geographic and political problems of the area are reviewed.

GEOG 366 Latin America 3 cr. A general overview of an extremely diverse region that is the product of both physical and cultural factors which have interacted over time to produce a unique landscape.

GEOG 367 Europe 3 cr. A study of the natural regions of Europe, including a consideration of climate, soil, plant and animal life, and human distribution.

GEOG 368 Former Soviet Union 3 cr. Study of the natural resources, the human ecology, and the regional organization of what was the Soviet Union.

GEOG 371 Cartography 3 cr. Techniques of computer-assisted map construction with major emphasis on the presentation of statistical information in graphic form.

GEOLOGY

GEOL 101 Environmental Geology with lab 4 cr. Man's interaction with the earth. Major environmental problems facing mankind today including: water resources, energy and mineral resources, and geologic hazards. Local field trips. Lecture, 3 hours; laboratory, 2 hours.

GEOL 105 Physical Geology with lab 4 cr. Earth as a physical body, its structure, composition, and the geologic processes acting on and within the earth. Designed especially for students with a specific interest in geology and for those students contemplating a major in the sciences. Field trips. Lecture, 3 hours; laboratory, 2 hours.

GEOL 106 Historical Geology with lab 4 cr. Earth through time, its origin, history, and the history and evolution of animal and plant life. Laboratory study of fossils, sedimentary rocks, and stratigraphic problems. Field trips. Lecture, 3 hours; laboratory, 2 hours. Prerequisites: GEOL 105.

GEOL 110 Earth Science by Inquiry 4 cr. This course uses inquiry-based methods to explore observational astronomy and some of the physical principles that shape the earth. Students will explore heat and temperature, magnetism, and optics, as well as the paths of the sun, earth and moon through space.

GEOL 210 Minerals and Rocks 4 cr. Physical, chemical, structural, and optical properties of minerals; description and identification of common rock-forming and ore minerals; mineral associations and introduction to classification of common rock types. Field trip. Offered each spring. Lecture, 2 hours; laboratory, 6 hours. Prerequisites: GEOL 105 and CHEM 121 and 121L.

GEOL 240 Geology of North Dakota 2 cr. Geology of North Dakota for students with an interest in the geologic history of the state. Coverage includes sedimentary rock units of the state and history of glaciation. Lecture, 1 hour; laboratory, 2 hours. Prerequisite: GEOL 105.

GEOL 255 Economic and Petroleum Geology 3 cr. Principles of petroleum geology, formation of mineral deposits, techniques of exploration, development, calculation of reserves. Offered alternate falls. Lecture, 2 hours; laboratory, 2 hours. Prerequisite: GEOL 105.

GEOL 300 Geologic Field Methods 3 cr. Geologic mapping and sampling techniques. Students use basic mapping instruments, gather data, record it while in the field, and construct complete and accurate geologic maps. Offered alternate springs. Lecture, 1 hour; laboratory, 4 hours. Prerequisites: GEOL 106 and 210 or consent of instructor.

GEOL 310 Igneous and Metamorphic Petrology 3 cr. Description and classification of igneous and metamorphic rocks based on mineralogy, textures, and chemical compositions; study of the origins of rocks through laboratory investigations of suites of related rocks. Field trip. Offered alternate springs. Lecture, 1 hour; laboratory, 6 hours. Prerequisite: GEOL 210.

GEOL 311 Paleontology 4 cr. Fossilization, classification, evolution, and paleoecology. Geologic history and identification of major invertebrate phyla. Laboratory emphasizes fossil identification. Offered alternate falls. Lecture, 2 hours; laboratory, 4 hours. Prerequisites: GEOL 106 or BIOL 151.

GEOL 320 Oceanography 3 cr. Nature, origin, and evolution of ocean basins and sea water. Sea water chemistry, movement, and ability to support life. Life forms. Lecture, 2 hours; laboratory, 2 hours. Prerequisite: GEOL 105.

GEOL 321 Hydrogeology 3 cr. Surface water hydrology; runoff and stream flow; groundwater hydrogeology: distribution of groundwater, aquifer properties, local and regional groundwater flow geology of groundwater occurrence; groundwater resource development and management; water law. Offered alternate springs. Lecture, 2 hours; laboratory, 2 hours. Prerequisite: GEOL 210.

GEOL 322 Geomorphology 4 cr. Processes that shape the Earth's surface. Effects of rock type, geologic structure, and climate on the formation and evolution of land forms. Lecture, 3 hours; laboratory, 2 hours. Prerequisite: GEOL 210.

GEOL 331 Soils 3 cr. Principles of soils including formation, properties, and classification. This course includes the use of soils information in environmental applications. Lecture, 2 hours; laboratory, 2 hours. Prerequisite: GEOL 210.

GEOL 340 Aqueous Geochemistry 3 cr. Principles of aqueous chemistry and their application to various geologic environments; chemical weathering, carbonate systems, clay minerals, evaporites, ocean systems, acid deposition, kinetics, solubility and redox equilibria, ion-exchange. Offered alternate springs. Lecture, 2 hours; laboratory 3 hours. Prerequisite: GEOL 210.

GEOL 361 Structural Geology 4 cr. Stress, strain, mechanical behavior of rocks; description and interpretation of folds, faults, joints, and foliation; tectonic processes; interpretation of geologic maps and field data. Field trip. Offered alternate falls. Lecture, 2 hours; laboratory, 6 hours. Prerequisite: GEOL 210.

GEOL 410 Advanced Earth Science by Inquiry 4 cr. Course involving aiding instructors in Earth Science by Inquiry (GEOL 110). Students will conduct oral interviews with GEOL 110 students during GEOL 110 class to determine their progress. Students will be required to learn plate tectonics and observational astronomy in depth during class preparation periods. Course exposes future secondary science teachers to inquiry methods in earth science and teaches them alternate reasoning methods that can be used at a variety of instructional levels. Lecture, 3 hours; laboratory, 2 hours. Prerequisite: consent of instructors.

GEOL 411 Field Geology 5 cr. The methods of geology, including the preparation of stratigraphic columns, cross sections and geologic maps integrated with paleoenvironmental interpretation and structural history. Students must write professional level reports. Offered in summer. Prerequisites: GEOL 361, 471, and consent of instructor.

GEOL 420 Co-op Practicum 4-8 cr. A cooperative program with industry, state, federal and other agencies for an in-depth study of a specialized area of geology. Students spend a minimum of 25 clock hours per semester hour for the practicum. Prerequisites: two years of geology course work and consent of geosciences program coordinator.

GEOL 421 Applied Hydrogeology 3 cr. Mass transport in vadose and saturated zones; origin and behavior of inorganic and organic contaminants; investigative techniques; groundwater models; site remediation. Lecture, 2 hours; laboratory, 3 hours. Prerequisites: GEOL 321 and 340.

GEOL 471 Sedimentation and Stratigraphy 4 cr. Origins, characteristics, and classification of sedimentary rocks. Techniques of study, interpretation of data, lithostratigraphy, biostratigraphy, chronostratigraphy, and correlation. Offered alternate falls. Lecture, 3 hours; laboratory, 2 hours. Prerequisites: GEOL 106, 210.

GERMAN

GERM 101 Beginning German I 4 cr. For beginners or those entering with one or two years of high school German. Introduction to listening, speaking, reading, writing, and culture.

GERM 102 Beginning German II 4 cr. A continuation of Beginning German I. Prerequisite: GERM 101.

GERM 201 Intermediate German I 4 cr. Review of basic German with increased practice in conversation and reading. Prerequisite: GERM 102, three years of high school German, or consent of instructor.

GERM 202 Intermediate German II 4 cr. Continuation of GERM 201. Prerequisite: GERM 201.

GERM 320 German Phonetics 2 cr. German phonetics. Theoretical and practical study of German phonetics. Practice in pronunciation and intonation. Prerequisite: GERM 202 or consent of instructor.

GERM 321 German Conversation and Composition 3 cr. Advanced practice in oral and written skills using cultural reading and other media. Prerequisite: GERM 202 or consent of instructor.

GERM 322 Introduction to German Literature 3 cr. Designed to improve language skills with an emphasis on reading and to enhance the student's ability to understand literature. Includes study

of poetry, drama, and narrative from the German-speaking world. Prerequisite: GERM 202 or consent of instructor.

GERM 323 German Culture 3 cr. Readings in culture and society from the German-speaking world. Prerequisite: GERM 202 or consent of instructor.

GERM 421 Advanced Topics in German 3 cr. Topics will vary from year to year depending on student backgrounds and needs.

GERM 422 Genres or Periods in German Literature 3 cr. Study of a major genre or period in German literature. Topic varies from year to year.

GERM 450 Senior Capstone Project in German 3 cr. Individual research project on a cultural topic approved by the instructor one semester prior to enrollment in the course.

HEALTH MANAGEMENT SCIENCE

HMS 151 Stress Management 1 cr. Focuses on utilizing concepts related to stress and stress management strategies to achieve holistic high level wellness.

HMS 203 Health Care Through the Life Span 3 cr. Provides an overview of promotion of health and prevention of illness throughout the life span.

HMS 208 Medical Terminology 2 cr. Comprehensive examination of prefixes, stems, and suffixes as well as emphasis on pronunciation, spelling, and definitions of words used by health professionals including key pathology, diagnostic and treatment procedure terms.

HMS 213 Life Span Growth and Development 3 cr. Focuses on human growth and development throughout the life span. Prerequisite: PSY 111. Classroom Study = 45 hrs.

HMS 240 Nutrition 3 cr. Nutrition and application to human dietary needs of people at different ages. Laboratory.

HMS 279 Death and Dying 3 cr. Provides a wholistic approach to end-of-life issues, including death, dying, and bereavement.

HMS 379 Health and Physiological Aspects of Aging 3 cr. Examines concepts of health, physiological changes, and health related practices of older adults. Required for Gerontology minor.

HEALTH, PHYSICAL EDUCATION AND RECREATION

HPER 100 Concepts of Fitness and Wellness 2 cr. Provides information and skill training directed to assessing the health related components of physical fitness, proper nutritional needs for performing physical activities, laboratory activities (aerobic dance, calisthenics, walk/jog, and weight training), and the cognitive concepts of health related fitness.

HPER 101 Dance 1 cr. Requires active participation and fundamental movement, including but not limited to social, folk and square dance.

HPER 102 Jogging and Conditioning 1 cr. Instruction, practice, and participation in the basic skills, body mechanics, and terminology associated with jogging and power walking. An emphasis is placed on developing a personal fitness program to fit the individual's needs and current abilities.

HPER 103 Beginning Gymnastics 1 cr. Requires active participation in fundamental tumbling skills, movement fundamentals, and warm-up.

HPER 104 Team Sports 1 cr. Requires active participation in (but not limited to) speedball, flickerball, basketball, and softball.

HPER 105 Outdoor Activities 1 cr. Requires active participation in (but not limited to) skiing, canoeing, cycling, camping, and associated outdoor activities.

HPER 106 Soccer 1 cr. Requires active participation in the fundamental skills of soccer.

HPER 107 Introduction to Physical Education 2 cr. Provides prospective physical educators with an insight into the broad scope of physical education. The student will have the opportunity to obtain an understanding and appreciation of this multifaceted field. Opportunities to assess what physical education offers in terms of career potential. Pre- or corequisite: HPER 100.

HPER 108 Volleyball 1 cr. Requires active participation in the fundamental skills and sport of volleyball.

HPER 109 Racket Sports 1 cr. Requires active participation in (but not limited to) tennis, badminton, racquetball, and pickleball.

HPER 110 Beginning Swimming 1 cr. Requires active participation in the fundamental skills of swimming. An emphasis will be placed on water survival skills based upon the American Red Cross water safety guidelines.

HPER 111 Varsity Football 1 cr. Requires active participation in varsity football.

HPER 112 Varsity Basketball 1 cr. Requires active participation in varsity basketball.

HPER 113 Varsity Track & Field 1 cr. Requires active participation in varsity track and field.

HPER 114 Varsity Tennis 1 cr. Requires active participation in varsity tennis.

HPER 115 Varsity Golf 1 cr. Requires active participation in varsity golf.

HPER 116 Varsity Cross Country 1 cr. Requires active participation in varsity cross country.

HPER 117 Varsity Volleyball 1 cr. Requires active participation in varsity volleyball.

HPER 118 Varsity Cheerleading 1 cr. Requires active participation in cheerleading during the fall or winter sports.

HPER 119 Varsity Softball 1 cr. Requires active participation in varsity softball.

HPER 120 Weight Training 1 cr. Instruction, practice and participation in the basic skills, body mechanics, and terminology associated with weight training. An emphasis is placed on developing a weight training program to fit the individual's needs and current abilities.

HPER 121 Varsity Baseball 1 cr. Requires active participation in varsity baseball.

HPER 124 Individual Sports 1 cr. Requires active participation, terminology, knowledge and skills associated with (but not limited to) golf and archery.

HPER 125 Intermediate Swimming 1 cr. Requires active participation in the perfection of swimming skills.

HPER 126 Group Fitness 1 cr. Requires active participation in fundamental movement skills and routines associated with low impact (land) or aqua aerobics.

HPER 127 Advanced Hunter Education 1 cr. Provides North Dakota Hunter Education certification, firearms history and nomenclature, marksmanship theory and practice, firearm handling and safety (which includes live firing with shotgun), basic first aid survival, hunting history, philosophy, and hunter ethics.

HPER 207 Prevention and Care of Injuries 2 cr. Provides a basic understanding of common injuries. Focus will be on the evaluation and course of treatment of the injuries presented.

HPER 210 First Aid and CPR 2 cr. Provides instruction in first aid, emergency care procedures, and CPR, which leads to certification by the American Red Cross.

HPER 215 Methods of Teaching Sports Activities 2 cr. Provides instruction, practice and teaching experience in sports activities. Fundamental rules, skills, terminology and teaching strategies will be emphasized in (but not limited to) the following sports: softball, soccer, speedball, volleyball, badminton, racquetball, archery, golf, tennis, wallyball, pickleball and ultimate frisbee. This course is restricted to PE majors and minors, coaching minors, and corporate fitness majors.

HPER 220 Methods of Teaching Dance 2 cr. Provides practice, instruction, and teaching experience in (but not limited to) social, folk and square dance. Emphasis will be placed on methods and techniques of teaching the rhythms of dance steps and placement of dance. This course is restricted to PE majors and minors, coaching minors, and corporate fitness majors.

HPER 226 Methods of Teaching Group Fitness and Weight Training 2 cr. Provides instruction, practice, and teaching experience in aerobic exercise and weight training. Fundamental terminology, skills and teaching techniques of the two activities will be emphasized. Students will practice developing training routines tailored to fit ability, fitness level, and desired outcomes of their future students and clients. Prerequisites: HPER 120 and 126.

HPER 230 Community Water Safety 2 cr. Provides instruction and practice in personal water safety fundamentals as designed by the American Red Cross.

HPER 231 Water Safety Instructor 2 cr. Provides certification for American Red Cross WSI and methodology of teaching in American Red Cross required swimming programs. This course requires passing of a proficiency swimming test.

HPER 250 Officiating 2 cr. The study of rules, interpretations, and techniques of officiating following the guidelines of the National Federation of State High School Activities Associations.

HPER 260 First Aid Instructor Trainer 2 cr. Provides instructor certification for American Red Cross First Aid, CPR, and Basic Life Support. Requirements are established by the American Red Cross. Prerequisite: HPER 210.

HPER 301 Psychomotor Development 2 cr. Provides an understanding of the changes that occur in motor behavior over the entire life span. Participants will have opportunities to discuss issues relating to various motor development theories and to the different influences affecting an individual's motor development. Participants will have opportunities to observe and analyze fundamental motor patterns as they are performed in various settings. Emphasis is placed on the identification of components of correct form, the detection of incorrect form, and the appropriate use of skill cues to prompt participants toward correct form.

HPER 310 Organization and Administration of PE and Athletics 2 cr. Provides a study of administration and management concepts and management responsibilities relevant to teaching and non-teaching career fields. Prerequisite: HPER 107.

HPER 334 Nutrition for Physical Performance 2 cr. Provides information on how nutritional habits affect physical performance. An emphasis will be placed on knowledge of the six basic nutrients, food groups, calories, and energy expenditure.

HPER 340 Elementary Methods and Activities 3 cr. Provides prospective teachers with an understanding of a contemporary and reflective approach to teaching elementary physical education grades K-6. This approach to teaching is based on "Dynamic Physical Education for Elementally School Children" by Robert P. Pangrazi Ph.D. and serves as the content for the recently published National Standards for Physical Education (Moving into the Future, 1995). Participants will learn and practice a set of specific teaching behaviors and curriculum development skills, which will be most useful as beginning teachers. Peer teaching and participation in up to six field experiences in surrounding elementary schools are also a part of this class. Activities in this class will result in materials meeting many of the INTASC standards and Professional Portfolios. Prerequisites: HPER 301 or major in Elementary Education and Admission to Teacher Education. In addition, this course is a prerequisite for HPER 341 and it is highly recommended that this it also be taken prior to HPER 391.

HPER 341 Practicum for Elementary Physical Education 2 cr. Provides prospective physical education teachers with active participation in the complete process of teaching developmentally appropriate physical education to children in grades K-6. This approach to teaching is based on "Dynamic Physical Education for Elementary School Children" by Robert P. Pangrazi Ph.D. and serves as the content for national standards for physical education (Moving into the Future, 1995). Participants will receive twenty-four contact hours with children during which time they will practice and refine instructional skills first taught in HPER 340. Prerequisites: HPER 340 and Admission to Teacher Education.

HPER 360 Administration of School Health Programs 3 cr. The development and administration of the public school health program, with emphasis being placed on health services, healthful school living, and health instruction. Special emphasis placed on developing and administering health instruction material for the elementary through senior high school program based upon the guidelines and recommendations of the North Dakota Department of Public Instruction.

HPER 361 Vital Health Issues 3 cr. Provides participants with an understanding of various current health topics and issues including (but not limited to) stress, mental health, intimate relationships, weight management, and substance abuse.

HPER 362 Principles and Methods of Teaching School Health 3 cr. Provides prospective teachers with an understanding of a contemporary and reflective approach to teaching health in the public schools grades K-12. This approach to teaching is based on learner-centered instructional strategies. Participants will learn and practice skills that will be most useful to them as beginning teachers such as: (a) establishing the learning environment; (b) planning appropriate and meaningful learning experiences; and (c) using effective teaching behaviors to implement the lesson plans.

HPER 391: Secondary Physical Education Methods and Practicum 4 cr. This course has two major components. First, methods coursework done at MSU which provides teaching strategies for classroom management, planning, instruction, and assessment of teacher as well as student behavior. Current issues and practices in secondary physical education are explored as presented in "Dynamic Physical Education for Secondary School Students" by Paul W. Darst Ph.D. and Robert P. Pangrazi Ph.D. Application of current theories of motivation are explored and applied in this course. Second, forty-five contact hours with secondary students will provide extensive opportunity to apply current practices learned in the classroom. Prerequisites: HPER 301, HPER 340, Admission to Teacher Education, and it is highly recommended that students take HPER 340 prior to enrolling in this course.

HPER 401 Methods of Coaching Football 2 cr. Provides techniques, skills, strategies and coaching procedures developed through classroom presentations and skill sessions.

HPER 402 Methods of Coaching Basketball 2 cr. Provides fundamental and team concepts developed through classroom and skill sessions.

HPER 403 Methods of Coaching Track 2 cr. Provides responsibilities, rules, methods and techniques of coaching track and field. Laboratory work and skill sessions.

HPER 404 Methods of Coaching Baseball/Softball 2 cr. Provides fundamental and team concepts developed through classroom presentations and skill sessions.

HPER 405 Methods of Coaching Wrestling 2 cr. Provides the requirements, responsibilities, and methods of coaching wrestling on a secondary or junior high school level. Along with classroom lecture and discussion the students will be required to observe practice sessions and matches at the local junior and senior high schools.

HPER 406 Methods of Coaching Volleyball 2 cr. Provides techniques, skills, strategies and coaching procedures developed through in-class analysis and on court skill sessions.

HPER 407 Psychology of Physical Education and Athletics 2 cr. Provides knowledge of the psychological aspects of participation in physical education and athletic events. Emphasis will be placed on the teacher/coach and student/athlete relationship in regard to developing communication, leadership, motivation, self-confidence, and goal setting skills. Prerequisite: PSY 111.

HPER 410 Advanced Athletic Injuries and Modalities 3 cr.

Provides specific manual examinations involved in the evaluation of athletic injuries. Use of therapeutic modalities in the treatment of athletic injuries will also be studied. Students will take part in laboratory work in order to facilitate hands on experience.

Prerequisite: HPER207.

HPER 431 Kinesiology 3 cr. Provides study of joint movements and muscle action as related to physical activities. Prerequisite: BIOL 115 or 220, and/or 221.

HPER 433 Physiology of Exercise 3 cr. Provides a comprehensive study of the physiological effect of muscular exercise and training upon the organs and systems of the body. Prerequisite: HPER 431.

HPER 441 Evaluation of Psychomotor Performance 3 cr. Designed to provide the corporate fitness and physical education major with an understanding of contemporary methods used to measure and evaluate psychomotor skills and performance. This approach is based on the latest National Standards for Physical Education (*Moving Into The Future*, 1995). Emphasis will be placed on learning and practicing techniques necessary for proper evaluation of health and performance related to physical fitness and selected sports skills.

HPER 442 Methods of Teaching Physical Education to the Disabled 2 cr. Provides practical methods and teaching applications that can be used in a mainstreamed or adapted group games, dance, and individual and dual sports. Prerequisite: HPER 215.

HPER 496 Coaching Practicum 2 cr. Coaching minors work with experienced coaches in the field to gain practical experience in a field setting. All practicums arranged by the department.

HPER 497 Corporate Fitness Practicum 8 min. cr. 160 hours of practicum experience at three sites in a recreation, wellness, or performance setting. Restricted to junior and senior corporate fitness majors. All HPER courses for the major must be completed.

HISTORY

The following category codes identify which courses may be taken to meet the chronological and distributed history requirements specified for program electives. Each individual course may be used to meet only one requirement.

- C1 Course on period before 1900
- C2 Course on period since 1900
- T Course on topical/comparative/thematic issues
- US Course with U.S. focus
- EU Course with European focus
- NW Course with non-western focus

HIST 101 Western Civilization I 3 cr. A survey of the political, intellectual, social and economic trends of Western Civilization from the Classical Age to the French Revolution. EU/C1

HIST 102 Western Civilization II 3 cr. A survey of the political, intellectual, social, and economic trends of western civilization from the French Revolution to the present. EU/C2

HIST 103 U.S. History to 1877 3 cr. Survey of U.S. history from Colonial period to end of Reconstruction. US/C1

HIST 104 U.S. History from 1877 3 cr. Survey of U.S. history from end of Reconstruction to present. US/C2

HIST 199H Modern World Origins 3 cr. A seminar in the origins of the modern world. Class time will emphasize student discussion of assigned relevant historical sources, both primary and secondary. In addition, there will be extensive and varied writing assignments. Honors Program admission of 3.30 cumulative GPA and permission of the instructor is required.

HIST 201 Early Modern European Social-Cultural History 3 cr. A study of the social and cultural history of Europe from the 16th century to the eve of the French Revolution. Recommended prerequisite: HIST 101. EU/T

HIST 203 American Social-Cultural History to 1865 3 cr. A reading and discussion course on the important phases of American thought and social development, with emphasis given to the Enlightenment, Romanticism, and the Age of Reform. Recommended prerequisite: HIST 103. US/T

HIST 204 American Social-Cultural History from 1865 3 cr. Continuation of History 203, with emphasis on the consequences of industrialization, modernization, and international concerns. Recommended prerequisite: HIST 104. US/T

HIST 212 World Civilizations since 1500 3 cr. This course surveys non-Western History between 1500 and the present. It focuses on the continents of Asia, Africa and Latin America, examining these continents' cultures and histories from their own perspectives. Special emphases will be placed on religion, organization of societies, continuity and discontinuity of cultures, interaction with Europe and North America, colonialism, and global exchange. NW/T

HIST 220 North Dakota History 3 cr. Survey of the trends and problems in the State of North Dakota and their relations to the upper Mississippi Valley area, from Indian heritage to the present. Recommended prerequisite: HIST 104. US/T

HIST 231 Latin America 3 cr. Survey of the countries below the Rio Grande from pre-Colombian times to the present. Special attention to continuity of Native American culture, colonial legacies, identity, gender roles, revolutions, relations with the U.S., and land and income distribution. NW/T

HIST 240 African History Survey 3 cr. Africa has a wide variety of cultures and peoples. In this survey, we will study civilizations in as different areas as the Egyptian Nile, the Malian savanna, the Congolian rainforest, and East Coast Swahili traders. Topics include: ancient Egypt, Islam, European colonialism and its consequences, apartheid, women, and kinship. NW/T

HIST 261 American Indian History 3 cr. A survey of Native American history from pre-contact to the present, providing an overview of the major trends and developments in Indian history. US/T

HIST 280 Practice and Method 2 cr. This colloquium will introduce students to the tools, research and writing methods, resources and theoretical approaches required in upper level history courses. The course will feature reading and discussion of monographs that illustrate a wide variety of historical approaches and methods. To be taken upon declaring a major in history or social science. (Offered spring semester only.)

HIST 299/499 Special Topics in History 1-3 cr. These are flexible courses that may be taught depending on student needs. The design of the course is to present the student an opportunity to concentrate on various topics. Prerequisites may apply.

HIST 301 History Research Lab 1 cr. An arranged course, focused on extended research and professional presentation of student scholarship, to be taken concurrently with a 300 or 400-level history elective. Prerequisite: consent of instructor.

HIST 315 History of American Women 3 cr. The experience of women in American history, with emphasis upon the continual change in woman's role and differences brought about by region, ethnicity, and economic class. Prerequisites: HIST 103 or 104 or consent of instructor. US/T

HIST 319 Colonial America 3 cr. Traces the development of the colonies from the time of European exploration and early English colonization to the confrontations between Britain and America in the 1760s and 1770s. Prerequisite: HIST 103 or 104 or consent of instructor. US/C1

HIST 320 The Early Republic 3 cr. Study of the social, intellectual, political, and diplomatic forces, issues, and personalities in America's formative (1781-1824) years. Prerequisite: HIST 103 or 104 or consent of instructor. US/C1

HIST 325 Sectionalism and the Civil War 3 cr. Traces the rise of sectionalism as a force in antebellum America leading to the Civil War. Prerequisite: HIST 103 or 104 or consent of instructor. US/C1

HIST 328 The Transformation of America 3 cr. Study of industrialization, urbanization, and immigration in America from 1865 to 1901, focusing on the social, political, and international consequences of and reaction to economic change. Prerequisite: HIST 103 or 104 or consent of instructor. US/C1

HIST 336 African American History 3 cr. Examines the history of African Americans in American society from 1619 to the present, including the West African cultural context, cultural retentions and changes in the American environment, and the emergence of cohesive African American culture. The course pays special attention to the ideas, contributions, and changing roles of African Americans with American society, economy, culture, and politics. Prerequisite: HIST 103 or 104 or consent of instructor. US/T

HIST 337 Imperialisms in Asia 3 cr. Models of western imperialism will be contrasted with those developed by Japan and China to develop a comparative study of political, cultural, and social developments in Japan, Indochina, China, and other Asiatic countries. Recent trends and relationships with the West will be emphasized. Prerequisite: HIST 102 or 104 or consent of instructor. NW/C2

HIST 338 History of South Africa 3 cr. South Africa is one of the most beautiful countries in the world, with fascinating historical developments. It is ethnically very diverse, combining African, European, and Asian populations. Today it is trying to forge a new identity as a recently democratic country. The course will examine cultural, political, social, and economic developments from pre-colonial times to the present. Some topics are: Zulu Wars, Cecil Rhodes' diamonds, the Great Trek, the Boer War, ANC, Apartheid, race relations, and the Truth and Reconciliation Committee. Prerequisite: HIST 101, 102, or 212, or consent of instructor. NW/T

HIST 340 Medieval History 3 cr. The study of Europe, East and West, from the break-up of the Roman Empire to the Renaissance (1500). Prerequisite: HIST 101 or 102 or consent of instructor. EU/C1

HIST 341 Renaissance and Reformation 3 cr. An in-depth study of the important themes, both secular and religious, of the Renaissance and Reformation eras. Prerequisite: HIST 101 or 102 or consent of instructor. EU/C1

HIST 347 The Making of Modern Europe 3 cr. A thematic study of Europe during the age of the industrial and social revolution, 1815-1945. This course compares major social and cultural trends across a variety of European nations. Prerequisite: HIST 101 or 102 or consent of instructor. EU

HIST 350 Europe in 20th Century 3 cr. A detailed consideration of the main political, intellectual, social and economic trends of 20th century Europe. Prerequisite: HIST 102. EU/C2

HIST 360 History of Technology 3 cr. A comparative study of how societies have made choices about technology in history. Case studies will be selected globally to address topics such as: urban planning, military technologies, gender and medical technology, the relationship between industrialization and work, domestic technologies and the communications revolution. These cases illuminate major theories of technology, asking whether technology drives history or if it is a social construction. Prerequisite: HIST 102 or 104 or consent of instructor. EU/T

HIST 363 Atlantic History 3 cr. Globalization is not a recent phenomenon. As early as the 15th century, Africans, Americans, and Europeans exchanged ideas, goods, animals, plants, diseases, and people on an ever increasing scale. In this course we will study the various levels of interactions between Africans, Americans, and Europeans between about 1400 and 1800 on the four inhabited continents bordering the Atlantic Ocean. Prerequisite: HIST 101, 102, 103 or 104 or consent of instructor. T/C1

HIST 365 Peoples and Cultures of Native North America 3 cr. The course surveys the major culture areas of North America prior to contact with Europeans. In each region particular attention is given to one group or nation to highlight cultural adaptations and development. Prerequisite: HIST 103 or 104 or consent of instructor. US/T

HIST 380 History of Mexico 3 cr. Mexico and the U.S. are entering into an ever closer relationship, but their histories are quite different. This survey outlines the Mexican past from pre-Colombian to modern times. We will focus on one area (the Andes or Meso America) and study a wide variety of topics such as: conquest, colonialism, religion, gender, protests, and ecology. Prerequisite: one of the following HIST 101, 102, 103, 104, 212, SPAN 344 or consent of instructor. NW/T

HIST 385 History of Brazil 3 cr. Brazil is more than carnival alone, but that is a fundamental aspect of the largest South American society. In this course, we will examine Brazilian history and society from a wide variety of angles. The country is very diverse: from the Amazon rainforest where native peoples still live in the Stone Age, to the Sao Paulo metropolitan area that can compete with any Western country as to modernity and industrial development. Brazil is a country full of contrasts: optimistic but sad, dancing sambas but violent. In the course we will examine Brazil's past and how this contributed to the country's present social, economic, political, and cultural situation. Prerequisite: one of the following HIST 101, 102, 103, 104, 212, SPAN 344 or consent of instructor. NW/T

HIST 399 Readings in History 1-3 cr. Study and discussion of readings in history. Specific topic will be arranged with the instructor. Prerequisite: consent of instructor.

HIST 401 Historiography 3 cr. A course to consider both the philosophy or theory of history as well as the mechanics of “doing” history. Prerequisites: HIST 101, 102, 103, 104, and 280, or consent of instructor. (Offered fall semester only.)

HIST 410 Trans-Mississippi West 3 cr. An in-depth look at the impact of this region on the development and growth of America. Prerequisites: HIST 103 and 104 or consent of instructor. US/T

HIST 415 20th Century America 3 cr. A seminar focusing on a particular theme or time period of 20th century American history. A specific focus will be selected each time the course is offered. Prerequisites: HIST 103 and 104 or consent of instructor. T/C2

HIST 420 Great Plains Indians 3 cr. Study of the culture and history of the Great Plains Indians. Prerequisites: HIST 103 and 104 or consent of instructor. US/T

HIST 430 Native American Social History 3 cr. Seminar examining the different social experiences of Native peoples in North America. Topics include, among others, historical demography, gender, intercultural relations, migration, and urbanization. Prerequisites: HIST 103 and 104 or consent of instructor. US/T

HIST 435 Latin American History Seminar 3 cr. A seminar focusing on a particular aspect of the history of the Latin American societies. Topics for focus may vary from Amerindian societies, gender, environmental history, social-economic situation, and relations with the U.S. Prerequisites: two of the following HIST 101, 102, 103, 104, 212, SPAN 344 or consent of instructor. NW/T

HIST 440 Comparative Slavery in the Americas 3 cr. North and South America have different experiences with slavery. In this course we will compare and contrast the African impact on both continents, especially in Brazil and the United States. Some topics that we will study are: the slave trades, runaway slave societies, the Haitian revolution, African religions, race relations, gender roles, families, and the meanings of freedom. Prerequisites: two of the following HIST 101, 102, 103, 104, 212, SPAN 344 or consent of instructor. T/C1

HIST 444 The French Revolution and Napoleon 3 cr. The seminar will cover the issues involved in the French Revolution and the rise of Napoleon, the French Empire and its effect on Europe and the world. Prerequisites: HIST 101 and 102 or consent of instructor. EU/C1

HIST 448 Medieval and Early Modern Germany 3 cr. A seminar in topics dealing with the history of Germany from the Middle Ages to the 17th century. Prerequisites: HIST 101 and 102 or consent of instructor. EU/C1

HIST 450 Modern Germany 3 cr. An in-depth study of the major themes of modern German history from 1815 to the present. Prerequisites: Prerequisites: HIST 101 and 102 or consent of instructor. EU/C2

HIST 460 Modern France and Francophone Society 3 cr. An in-depth seminar on the major themes of modern French history from 1750 to the present. Prerequisites: HIST 101 and 102 or consent of instructor. EU/C2

HIST 491 History Seminar 3 cr. An advanced seminar in history with a major paper requirement. Prerequisite: consent of instructor.

HIST 497 Internship 3 cr. Placement in applied public history setting for practical experience. Course is offered on a pass/fail basis. Prerequisite: HIST 280 and consent of instructor.

HUMANITIES

HUM 251 Humanities 3 cr. Integrated course in art, literature, and music from the Stone Ages to the Middle Ages.

HUM 252 Humanities 3 cr. Integrated course in art, literature, and music from the Gothic Period through the Seventeenth Century.

HUM 253 Humanities 3 cr. Integrated course in art, literature, and music from the Eighteenth Century to the Present Time.

HUM 254 Non-Western Humanities 3 cr. An integrated survey of the art, literature, philosophy, and history of a particular non-western culture. The specific culture studied from year to year will vary but could rotate among Japanese, African, pre-Columbian American, Chinese, or Indian. May be repeated for credit.

INTERDISCIPLINARY

INT 101 University 101 1 cr. An intensive orientation program offered to prepare incoming students for academic and social life at Minot State University. Students are introduced to the services and opportunities available through the University. Students also learn basic concepts behind higher education and engage in exercises that emphasize the use of writing and critical thinking.

INT 175 Transition to University Life 2 cr. This course is designed to ease the new student's transition into college and provide opportunities for the student to obtain knowledge and skills necessary to complete his/her educational goals. Some of the topics covered are: campus resources, stress management, assertive communication, conflict resolution, leadership, and money management.

INT 190 Study Skills 2 cr. This course will contain practical strategies for a successful college experience. Topics will include: time management, listening skills, textbook reading skills, identifying learning styles, test-taking techniques, and effective writing. This course is appropriate for anyone wishing to improve learning skills.

INT 299/499 Special Topics variable cr. Topics variable. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

LANGUAGE

LANG 390 Foreign Language Methods 3 cr. Introduction to practical methods for teaching foreign languages. Observation of high school classes and some practice teaching are included. This course is required of foreign language majors and minors in the BSE program. Prerequisite: Admittance to Teacher Education.

LANG 451 Study Abroad 4 cr. Students complete a significant period of immersion in the target culture. The foreign language faculty assist students with making arrangements for study abroad.

MATHEMATICS

MATH 099 Beginning Algebra 3 cr. Offered through Continuing Education. Cannot be counted toward graduation hours.

MATH 102 Intermediate Algebra 4 cr. Real Numbers, simple algebraic expressions, linear equations, graphs, factoring, quadratic equations.

MATH 103 College Algebra 4 cr. Linear and quadratic equations, radicals, exponents and logarithms, rational expressions, systems of linear equations, matrices and determinants, sequences, series, function notation and graphing. Prerequisite: MATH 102 or departmental approval.

MATH 104 Finite Mathematics 4 cr. Systems of linear equations and inequalities, matrices, linear programming, logic, mathematics of finance, elementary probability, and descriptive statistics. Prerequisite: MATH 102 or departmental approval.

MATH 107 Precalculus 4 cr. Trigonometric functions, solving triangles, analytic geometry, theory of equations, sequences, series and induction. Prerequisite: MATH 103 or advanced placement.

MATH 146 Applied Calculus 3 cr. Introduction to differential and integral calculus with applications from areas such as social science and business. Prerequisite: MATH 103 or advanced placement.

MATH 165 Calculus I 4 cr. Limits, continuity, differentiation, intermediate value and mean value theorem, indefinite integrals, definite integrals. Prerequisite: Math 107 or advanced placement.

MATH 166 Calculus II 4 cr. Applications of integration, methods of integration, polar equations, sequences, series and power series. Prerequisite: MATH 165.

MATH 201H Ascent of Math 3 cr. Selected topics in mathematics such as: sets, logic, number theory, mathematical systems, and probability and their relation to problem solving. Prerequisite: Two years of high school algebra or departmental approval.

MATH 205 Mathematical Proof and Problem Solving 3 cr. A course on mathematical proofs and axiomatic systems. Topics may include set theory, formal logic, combinatorics, graph theory. Prerequisite: MATH 165.

MATH 208 Discrete Mathematics 4 cr. Sets, relations and functions, combinatorics, logic, Boolean algebra, difference equations, graph theory, automata. Prerequisite: MATH 103.

MATH 240 Applied Statistics 4 cr. Sampling, descriptive statistics, probability and statistical inference, statistical inference and multivariate statistics. Use of computers to solve problems in elementary statistics. Prerequisite: MATH 103.

MATH 265 Calculus III 4 cr. Functions of more than one variable, multiple integrals, line integrals, Green's and Stoke's theorem. Prerequisite: MATH 166.

MATH 266 Introduction to Differential Equations 3 cr. First order equations, linear equations, systems of equations, series methods. Corequisite: MATH 265.

MATH 277 Mathematics for Elementary Teachers I 3 cr. A course for elementary education majors. Topics include problem solving, number systems (natural numbers through the reals), number theory, and proportional reasoning. Calculators, computer software and manipulatives used throughout the course. Prerequisite MATH 103.

MATH 299 Special Topics 1-4 cr.

MATH 305 Linear Algebra 4 cr. Real vector spaces, subspaces, linear transformations, matrices, eigenvalues and eigenvectors, vector geometry. Prerequisite: MATH 107.

MATH 315 Modeling 3 cr. Using mathematical reasoning to model open ended "real world" problems. Topics include graphic modeling, proportionality optimization, dimensional analysis and simulation. Prerequisites: MATH 166, MATH 305.

MATH 320 Number Theory 3 cr. Unique factorization, residue theory, Diophantine equations, quadratic equations and reciprocity. Prerequisite: MATH 165.

MATH 330 College Geometry 4 cr. Geometry for secondary teachers. Euclidean geometry using both inductive and deductive approaches. Teaching tools include LOGO, Geometers Sketchpad, and See Through Mirrors. Standard topics plus finite and transformational geometry. Prerequisite: Math 165.

MATH 345 Statistical Methods I 4 cr. An introduction to statistical methods including topics from sampling, hypothesis testing, non-parametric statistics, resampling, simple and multiple regression, and the general linear model. Computer statistical packages will be integrated into the course. Prerequisite: Math 240 or equivalent.

MATH 346 Statistical Methods II 4 cr. Statistical methods including topics from analysis of variance; fixed and random factors; block, nested, and crossed designs; factorial, fractional factorial and confounded designs; split plot designs; and multivariate analysis. Computer statistical packages will be integrated into the course. Prerequisite: Math 345.

MATH 377 Mathematics for Elementary Teachers II 2 cr. A course for elementary education majors. Topics include probability, statistics, and geometry. Calculators, computer software, and manipulatives are used throughout the course. Prerequisite: MATH 103 or equivalent.

MATH 380 History of Mathematics 3 cr. Development of mathematics from its early beginning through the present axiomatic approach. Problems from each era are included. Prerequisite: MATH 165 and MATH 330.

MATH 391 Teaching Mathematics 4 cr. Intended for secondary mathematics teachers. Planning mathematics lessons, developing mathematics teaching skills. Observation and practicum. Prerequisites: MATH 166 and admission to Teacher Education.

MATH 393 Math Education Seminar 1-4 cr. Examination of problems and trends in the teaching of secondary school mathematics. Corequisite: ED 493.

MATH 394 Independent Study 1-4 cr.

MATH 420 Abstract Algebra 4 cr. Introduction to abstract algebraic systems. Groups, rings, homomorphisms and isomorphisms. Prerequisites: MATH 310, MATH 320.

MATH 445 Probability and Statistics I 4 cr. Introduction to probability, discrete and continuous random variables, distribution functions, special probability distributions. Prerequisites: MATH 146 or MATH 166.

MATH 446 Probability and Statistics II 4 cr. Multivariate probability distributions. Functions of random variables, moment generating functions, sampling distributions, estimation methods, properties of point estimations, linear models, some special experimental designs. Prerequisite: MATH 445.

MATH 450 Real Analysis 4 cr. Limits of functions and sequences, continuity, topology of the reals, differentiation, Riemann Integration, convergence and uniform convergence. Prerequisites: MATH 166, MATH 310.

MATH 460 Complex Analysis 3 cr. Analytic functions, conformal maps, Cauchy integral formula, residue theorem. Prerequisites: MATH 265 and MATH 450.

MATH 470 Numerical Analysis 3 cr. Error analysis, numerical differentiation and integration, linear systems and numerical solutions to differential equations. Prerequisites: CSCI 128, MATH 266, 305.

MATH 494 Independent Study 1-4 cr.

MATH 499 Special Topics 1-4 cr.

MUSIC

MUSC 099 Recitals/Concerts 0 cr. This is a non-credit course which will appear on each music majors semester program. It is designed to accumulate information as to the student's required attendance at predesignated recitals, concerts, and seminars. The final grade will be either Satisfactory (S) or Unsatisfactory (U).

MUSC 100 Music Appreciation 3 cr. Designed for the non-music major and may be used as partial fulfillment of Humanities requirement. Representative works from many cultures will be studied.

MUSC 101 Fundamentals of Music 2 cr. Introduction to fundamental elements of music and functional musicianship for non-music majors.

MUSC 102 Private Piano 1 cr. (\$150 lesson fee for non-majors.)

MUSC 103 Private Harpsichord 1 cr. (\$150 lesson fee for non-majors.)

MUSC 105 Women's Chorus 1 cr. Open to female singers with interest in singing.

MUSC 106 Private Organ 1 cr. (\$150 lesson fee for non-majors.)

MUSC 111 Private Voice 1 cr. (\$150 lesson fee for non-majors.)

MUSC 115 Opera-Musical Production 1 cr. Techniques of production and staging dramatic musical works, employing operas and scenes from operas.

MUSC 116 Private Strings 1 cr. (\$150 lesson fee for non-majors.)

MUSC 117 Private Classical Guitar 1 cr. (\$150 lesson fee for non-majors.)

MUSC 119 Vocal Ensemble 1 cr. Membership subject to approval of director. (Rehearsals by arrangement.)

MUSC 120 Concert Choir 1 cr. Membership subject to approval of director.

MUSC 122 Music Theory I 3 cr. Study of music notation and basic structure of music, including key signatures, scales, chords, four-part writing and instrumental notation. Provides students with practical applications of music theory concepts. Meets three times weekly.

MUSC 123 Aural Skills I 1 cr. A lab experience meeting twice weekly, to develop abilities in sight-singing, ear training, rhythm reading and error detection, interval and chord identification.

MUSC 124 Music Theory II 3 cr. Further develops a student's understanding of music notation and basic structures of music, including voice-leading, figured bass, melodic forms, modulations and seventh chords. Meets three times per week. Prerequisite: MUSC 122.

MUSC 125 Aural Skills II 1 cr. A lab experience meeting twice weekly, to develop abilities in sight-singing, ear training, rhythm reading and error detection, interval and chord identification. Prerequisite: MUSC 123.

MUSC 126 Private Brass 1 cr. (\$150 lesson fee for non-majors.)

MUSC 127 MSU Singers 1 cr. By audition.

MUSC 130 Brass Ensemble 1 cr. Rehearsals are arranged and membership is subject to approval of director.

MUSC 131 Private Percussion 1 cr. (\$150 lesson fee for non-majors.)

MUSC 133 Private Woodwinds 1 cr. (\$150 lesson fee for non-majors.)

MUSC 135 Woodwind Ensemble 1 cr. Rehearsals arranged and membership subject to approval of director.

MUSC 140 String Ensemble 1 cr. Membership subject to approval of director.

MUSC 145 Percussion Ensemble 1 cr. Rehearsals are arranged and membership subject to approval of director.

MUSC 150 Orchestra 1 cr. Rehearses Thursday evening. The Minot Symphony Orchestra is a university-community organization. Open to qualified students upon approval of director.

MUSC 155 Wind Ensemble 1 cr. Open to qualified students subject to approval of director.

MUSC 160 Concert Band 1 cr. Open to qualified students subject to approval of director.

MUSC 165 Jazz Ensemble 1 cr. Open to qualified students subject to approval of director.

MUSC 167 Jazz Combo 1 cr. Open to qualified students subject to approval of director.

MUSC 177 Functional Piano 1 cr. Apiano class designed for students who are beginners on the instrument, first year theory students, and elementary education majors. (Class meets twice weekly.)

MUSC 178 Functional Piano 1 cr. Continuation of MUSC 177 (Class meets twice weekly.)

MUSC 180 Class Guitar I 1 cr. Beginning technique in chord and melody playing is developed in class ensemble. Courses in progressive order of advancement.

MUSC 181 Class Guitar II 1 cr. Continuation of MUSC 180.

MUSC 201 World Music 3 cr. Designed to introduce the world's major musics in order to encourage and enhance cultural diversity. May be used as partial fulfillment of the Humanities requirement.

MUSC 205 History of the United States Through its Music 3 cr. Designed for the non-music major and may be used as partial fulfillment of the Humanities requirement. American music which accompanied significant historical eras and development will be studied.

MUSC 222 Music Theory III 3 cr. A continuing study of the underlying theoretical background of tonal music, begun in Theory I and II. Topics include a thorough study of chromatic harmony and the deterioration of functional harmony in the late 19th century to the demise of tonality in the 20th. Analytical techniques are stressed. Meets three times per week. Prerequisite: MUSC 124.

MUSC 223 Aural Skills III 1 cr. A practical continuation of previous aural studies. Areas to be covered include advanced work in musical dictation, error detection, and sight singing. Meets twice per week. Prerequisite: MUSC 125.

MUSC 224 Music Theory IV 3 cr. Study of such forms as binary, ternary, rondo, chorale prelude, variation, invention, fugue, and sonata-allegro. Prerequisite: MUSC 222.

MUSC 225 Aural Skills IV 1 cr. A practical continuation of previous aural studies. Areas to be covered include highly advanced work in musical dictation, error detection, and sight singing. Meets three times per week. Prerequisite: MUSC 223.

MUSC 301 Music Methods for the Elementary Teacher 2 cr. Methods and materials for the classroom teacher in guiding young children in musical experiences K-6. Prerequisites: MUSC 101 or 122.

MUSC 306 Music History & Literature I 3 cr. The objective of this course is to focus on the evolution of musical and aesthetic concepts as they relate to the music of Western Civilization. The major music categories studied will be the Middle Ages, Renaissance, and Baroque eras.

MUSC 307 Music History & Literature II 3 cr. The objective of this course is to focus on the evolution of musical and aesthetic concepts as they relate to the music of Western Civilization. The major music categories studied will be the Classic, Romantic, and 20th Century eras.

MUSC 321 Creativity in Music 2 cr. The study and development of musical creativity through arranging and composition. Prerequisites: MUSC 224 and 225.

MUSC 323 Composition-MIDI Systems 2 cr. The composition of music utilizing traditional and technological devices. Prerequisites: MUSC 224 and 225.

MUSC 330 Voice Methods 1 cr. This course investigates basic vocal pedagogy methods, introducing essential tools for teaching singing. Student will study international phonetic alphabet to assist foreign language diction skills, and explore repertoire suited for the beginning singer.

MUSC 341 String Methods 1 cr. A practical class involving the playing and techniques of teaching the bowed, orchestral string instruments (violin, viola, cello, and string bass) at an elementary level. Teaching materials and string pedagogy are also considered.

MUSC 342 Woodwind Methods 1 cr. The purpose of this course is to give the student an introduction to the techniques of playing and teaching woodwinds. Teaching methods, proper playing position, embouchure, common problems and errors made by students, equipment, maintenance and repair of the instruments, and both pedagogical and performance literature will be presented.

MUSC 343 Brass Methods 1 cr. Teaching techniques and performance proficiency on each of the brass family instruments.

MUSC 344 Percussion Methods 1 cr. Techniques and methods of playing and teaching percussion.

MUSC 356 Piano Pedagogy 3 cr. Provides a foundation for teaching piano. While the class focuses on teaching methods and the development of pedagogical tools for private and group piano, piano pedagogy students are given opportunities to observe teaching and to practice and hone their teaching skills. The class also includes an examination at business aspects of maintaining a piano studio.

MUSC 366 Instrumental Jazz Improvisation I 2 cr. Study of the utilization and translation of basic musical elements such as scales, mixolydian modes, dominant seventh chords, rhythm, form, and melody into an individually creative jazz performance. Open to all instruments including strings.

MUSC 367 Instrumental Jazz Improvisation II 2 cr. Continuation of MUSC 366 by studying the dorian modes, minor seventh chords, and integration rhythm and melody with actual playing to further the students progress. Prerequisite: MUSC 366.

MUSC 390 Secondary Instrumental Methods and Conducting 3 cr. Instrumental conducting, score reading and performance preparation, including examination of methods and materials used in the secondary band program. Prerequisites: MUSC 124 and admission to teacher education.

MUSC 391 Secondary Vocal/Choral Methods and Conducting 3 cr. Choral conducting, score reading and performance preparation, including examination of methods and materials used in the secondary choir program. Prerequisites: MUSC 101 or 122 and admission to teacher education.

MUSC 392 Elementary Music Methods 2 cr. Methods and materials used in elementary general music/choral music program grades K-8. Prerequisites: MUSC 124 and admission to teacher education.

MUSC 393 Classroom Instruments 1 cr. Development of basic skills on fretted instruments (guitar, ukelele), recorder, autoharp, percussion instruments for use in the elementary music classroom. Prerequisite: admission to teacher education.

MUSC 401 Evaluation and Administration in Music Education 1 cr. Designed to help the music student learn evaluative methods as they relate to and are administered by the music educator. Prerequisite: admission to teacher education.

MUSC 440 Instrument Repair 1 cr. Basic techniques in instrument maintenance and care.

MUSC 441 Piano Tuning 2 cr. Study of piano tuning, piano construction and repair in addition to organ tuning. Prerequisites: The ability to play all major chords and any two note interval. May be repeated.

MUSC 480 Senior Project 1 cr.

NURS

NURS 221 Pre-Professional Development 1 cr. Facilitates the development of professional behaviors, roles, and responsibilities. Provides opportunity for professional development, community service, and continuing education. Nursing elective graded pass/fail. Guidelines available through Department of Nursing. Prerequisite: Pre-nursing or nursing major sophomore level.

NURS 222 Math for Meds 1 cr. Enables the student to develop calculation skills, using the dimensional analysis technique, to safely calculate and administer medications.

NURS 223 Art and Aesthetics in Nursing 1 cr. Provides a framework to foster caring and critical thinking in nursing. Artistic forms are utilized as transformative learning experiences to convey the concerns and feelings of others, the sensitivity to the contexts in which others live, their cultures and the unique ways they live in the world. Nursing elective graded pass/fail.

NURS 253 Nursing Perspectives 3 cr. Focuses on introductory concepts of the discipline of professional nursing Open to the general university student. Prerequisites: ENGL 110 and PSY 111. CS = 45.*

NURS 256 Nursing Foundations 6 cr. Applies basic theoretical concepts to professional nursing in appropriate practice settings. Prerequisites: BIOL 142; HMS 213, 240; MATH 103; NURS 253; and SOC 101. CS = 60; C/L = 90.*

NURS 263 Health Promotion and Disease Prevention 3 cr. Introduces nursing theories and concepts basic for maintaining and promoting health through the life span. Clinical experiences occur in various community agencies and settings. Prerequisites: COMM 110, HMS 213, 240, and NURS 253. CS = 30; C/L = 45.*

NURS 264 Health Assessment 4 cr. Applies methods required for a nursing health assessment in classroom and laboratory setting. Prerequisites: BIOL 220, 221, CHEM 115, and HMS 213. CS = 45; C/L = 45.*

NURS 321 Gerontological Nursing 2 cr. Fosters an awareness and understanding of the aging population by investigating the biopsychosocial and spiritual needs of the elderly population. The issues of wellness, health, and function are addressed. The student is

expected to gain an understanding of nursing and nursing's role in providing care for the older population. Prerequisites: NURS 256, 263, 264 or permission of instructor.

NURS 365 Adult Health Nursing I 5 cr. Focuses on nursing care of adults experiencing common health problems with predictable outcomes in selected body systems, including concepts of absorption, elimination, regulation, mobility, perceptual dysfunction, cell injury and inflammation, altered immune responses, and perioperative principles. Concepts important in understanding health and illness in the elderly are included. Clinical experiences occur in laboratory simulation and perioperative settings. Prerequisites: NURS 256, 263, and 264. CS = 45; C/L = 90.*

NURS 375 Adult Health Nursing II 5 cr. Focuses on nursing care of adults, including the elderly, who experience chronic and/or progressive health problems in selected body systems. Concepts of sensation, oxygenation, digestion, regulation, movement/coordination, and abnormal cell growth are included. Principles and practices of intravenous therapy are applied to the adult client. Clinical experiences occur in the laboratory, medical, and rehabilitation settings of the hospital. Prerequisite: NURS 365. CS = 45; C/L = 90.*

NURS 382 LPN to BSN Bridge Course 2 cr. Facilitates the transition of Licensed Practical Nurses into baccalaureate education by emphasizing core theory and clinical experience utilizing strategies of adult learning. The course content is derived from NURS 256, 365, and 375. Clinical experiences occur in the laboratory, medical, surgical, and rehabilitation health care settings. Prerequisite: Acceptance as advanced standing student. CS = 15; C/L = 45.*

NURS 383 RN Bridge Course 1-3 cr. Facilitates the transition of registered nurses into baccalaureate nursing education by emphasizing core theory and clinical practice within an adult learner environment. Prerequisites: ENGL 110, COMM 110, PSY 111, SOC 101, NURS 264, and acceptance as advanced standing student.

NURS 384 Adult Health Nursing III 4 cr. Focuses on advanced nursing care of adults experiencing acute, complex, and potentially unstable illnesses and injuries. Concepts, principles, and theories relating to adaptation and life support management of regulatory systems are included. Clinical experiences include laboratory simulation and life system support settings, including critical care areas, dialysis, and emergency/trauma services. Prerequisite: NURS 375. CS = 30; C/L = 90.*

NURS 385 Women's Health Nursing 5 cr. Emphasizes theories and clinical nursing practices relating to women's health, child bearing, the newborn, and health practices within families. Prerequisite: NURS 375. CS = 37.5; C/L = 112.5.*

NURS 397 Nursing Internship 1-6 cr. Fosters development of clinical nursing skills and decision making in approved health care agencies. Nursing elective graded pass/fail. Guidelines available through Department of Nursing. Prerequisite: NURS 256, 263, and 264. One semester credit hour = minimum of 45 hours of clinical study.

NURS 421 Nursing Leadership Development 1 cr. Provides opportunities to implement leadership skills in professional roles and community service. Promotes activities in professionalism, continuing education, and networking. Nursing elective graded pass/fail. Guidelines available through Department of Nursing. Prerequisites: NURS 256, 263, and 264.

NURS 422 Therapeutic Touch 2 cr. This elective course explores the scientific, theoretical, and clinical foundations of therapeutic touch. Contemporary research findings are discussed and critiqued. Blends both didactic and experiential learning into a balanced, grounded approach to this new version of an ancient, caring, healing art. Prerequisites: junior or senior year or faculty approval. CS = 30.*

NURS 443 Child Health Nursing 3 cr. Applies theories, concepts, and competencies in providing nursing care for children. Prerequisites: NURS 384 and 385. CS = 30; C/L = 45.*

NURS 453 Psychiatric-Mental Health Nursing 3 cr. Applies psychosocial concepts and theories in psychiatric-mental health nursing within a nursing process framework for care of the mentally ill. Prerequisites: NURS 384 and 385 and PSY 270. CS = 22.5; C/L = 67.5.*

NURS 456 Community Health Nursing 6 cr. Operationalizes principles and concepts of community health nursing, as well as basic elements of public health science and epidemiology in population based care. Prerequisites: NURS 375 and 385. CS = 45; C/L = 135.*

NURS 463 Nursing Theory and Research 3 cr. Surveys contribution of theory and research to the development of the discipline of nursing. Focuses on nursing theories, conceptualizations, and research utilization for decision making within professional nursing. Prerequisites: NURS 385. CS = 45.*

NURS 472 Trends and Issues 2 cr. Evaluates current issues and trends impacting upon professional nursing practice. Introduces strategies to empower nurses for professional nursing with emphasis on legal, ethical and political economic frameworks, career management; and health care policy. Prerequisite: NURS 443, 453, 456, 463, or faculty approval. CS = 30.*

NURS 473 Nursing Leadership & Management 3 cr. Analyzes theories and concepts of leadership and management for the professional nurse in dynamic nursing care delivery systems. Prerequisite: NURS 443, 453, 456, 463. CS = 45.*

NURS 497 Nursing Practicum 6 cr. Integrates management concepts in clinical nursing practice in selected health care systems with the collaborative guidance of faculty and clinical preceptors. Prerequisites: NURS 443, 453, 456, and 463. Corequisite: NURS 473; 384 may be corequisite for RNs. C/L = 270.*

*CS = clock hours of classroom study; C/L = clock hours of clinical or laboratory study.

PHILOSOPHY

PHIL 100 Critical Thinking 3 cr. The study of effective thinking, both logical and evaluative.

PHIL 101 Introduction to Philosophy 3 cr. Basic problems, concepts, and methods of philosophy.

PHIL 102 Philosophy of Human Nature 3 cr. Focuses on what it means to be a human being and the so-called "nature-nurture controversy."

PHIL 201 Philosophy of Religion 3 cr. A critical examination of the reasonability of religious belief. The existence of God, the problem of evil, and other topics will be discussed.

PHIL 210 Ethics 3 cr. A study of traditional concepts in ethical theory and moral reasoning.

PHIL 222 Philosophy and Literature 3 cr. A careful examination and discussion of some major philosophical ideas as found in literature. Ideas discussed include alienation, mortality, the meaning of life, and other relevant matters.

PHIL 291H 20th Century Issues 3 cr. This course is an intensive analysis of some key movements and ideas in the United States during the years 1945-1975. Topics to be discussed include the following: (1) American foreign policy, the Cold War, and the ethics of deterrence; (2) McCarthyism, civil liberties, and the Constitution; (3) The Civil Rights movement, Martin Luther King, affirmative action, and racism; (4) Women's Liberation, feminism, and comparable worth; (5) Vietnam, American imperialism, and the ethics of war. Issues will be approached from an interdisciplinary standpoint. Primary focus will be on ethical and socio-political issues as understood in their historical context. Honors Program admission or 3.30 cumulative GPA and permission of the instructor is required.

PHIL 320 Applied Ethics 3 cr. A critical application of ethical theory to current issues in medicine, business, or law.

PHIL 330 Political Philosophy 3 cr. This course examines the basic principles and features of the major political philosophies and systems of government.

PHIL 380 Existentialism 3 cr. A careful examination of major existentialist thinkers (Kierkegaard, Nietzsche, Sartre, etc.) and dominant existential themes: alienation, mortality, the meaning of life, and God.

PHIL 382 Philosophy of Social Science 3 cr. An examination of the nature of social sciences, their relation to the natural sciences, and related matters. Causality, free will and the issue of methodology will be examined.

PHIL 384 Oriental Philosophy 3 cr. A critical examination of the leading eastern worldviews: Buddhism, Hinduism, Confucianism, Taoism, and other eastern views.

PHIL 410 Analytic Philosophy 3 cr. An overview of the dominant movement in 20th century philosophy, its leading figures, and the issues raised.

PHYSICS

PHYS 105 Physical Science by Inquiry 4 cr. In this course students will be involved in an in-depth inquiry based exploration of basic principles of physical science which are often taught in elementary school. It covers topic of properties of matter, light and color, electric circuits, and kinematics. Inquiry based units are supplemented with material on the history of scientific development.

PHYS 110 Astronomy 4 cr. A study of the universe that begins with the earth as a planet, the planets and the satellites of our solar system, and moves out through stellar astronomy to galaxies and into the very fabric of the universe. It includes an evaluation of the methods and techniques of astronomy. Offered fall semester. Both day and night laboratories. Lecture, 3 hours; laboratory, 2 hours.

PHYS 203 Introduction to Physics I 4 cr. Elementary laws and principles of mechanics and fluids. Lecture, 2 hours; laboratory, 2 hours; recitation, 2 hours. Prerequisite: MATH 103.

PHYS 204 Introduction to Physics II 4 cr. Elementary laws of electricity and magnetism, optics, and modern physics. Lecture, 2 hours; laboratory, 2 hours; recitation, 2 hours. Prerequisite: PHYS203.

PHYS 221 General Physics I 5 cr. Newton's laws; work and energy; impulse and momentum; angular momentum; oscillations; gravity; wave motion; thermodynamics. Lecture, 3 hours; laboratory, 2 hours; recitation, 2 hours. Corequisite: MATH 166.

PHYS 222 General Physics II 5 cr. Electricity; Gauss' laws and potential difference; magnetism; Maxwell's equations; optics; introduction to Modern Physics. Lecture, 3 hours; laboratory, 2 hours; recitation, 2 hours. Prerequisite: PHYS 221. Corequisite: MATH 265.

PHYS 321 Optics 3 cr. Physical optics, including interference, diffraction, and the electromagnetic properties of light. Lecture, 3 hours. Prerequisite: PHYS 222.

PHYS 331 Mechanics 4 cr. Statics and dynamics of particles and bodies; oscillations; motion of a system of particles; rigid body dynamics; central force motion; accelerated frames of reference; Lagrangian and Hamiltonian mechanics. Lecture, 4 hours. Prerequisites: PHYS 222 and MATH 266.

PHYS 341 Electricity and Magnetism 4 cr. Electronic fields and potentials; dielectrics; LaPlace's equation and uniqueness theorem. Magnetic fields; magnetic materials, Maxwell's equations, and electromagnetic radiation. Lecture, 4 hours. Prerequisites: PHYS 222 and MATH 266.

PHYS 351 Thermal Physics 3 cr. Introduction to statistical mechanics; laws of thermodynamics; ideal gasses; kinetic theory. Lecture, 3 hours. Prerequisites: PHYS 222 and MATH 266.

PHYS 405 Advanced Physical Science by Inquiry 4 cr. Course involves aiding instructors in Physical Science by Inquiry (PHYS 105). Students will conduct oral interviews with PHYS 105 students during PHYS 105 class to determine their progress. Students will be required to learn Properties of Matter in depth during class preparation periods. Course exposes future secondary teachers to inquiry methods in physical science and teaches them alternate reasoning methods that can be used at a variety of instructional levels. Lecture, 3 hours; laboratory, 2 hours. Prerequisite: permission of instructors.

PHYS 411 Principles of Physics Measure 4 cr. Students will research and report on experiments in optics, modern physics, and electronics. Lectures will address electronics, laboratory reports, and error analysis. Lecture, 2 hours; laboratory, 4 hours. Prerequisite: Consent of instructor.

PHYS 412 Astronomical Instruments and Observing 3 cr. Astronomical instruments; telescopes, cameras, CCD, photometry, and spectroscopy. Observing celestial objects using different instruments; study of variable stars. Students will also participate in open observatory nights. Lecture, 1 hour; laboratory, 4 hours. Prerequisite: PHYS 110.

PHYS 421 Introduction to Quantum Physics 4 cr. Special relativity; thermal radiation; photons; wave nature of matter; Bohr atom; Schrodinger equation; Hydrogen atom; multi-electron atoms; quantum statistics; Topics selected from the areas of solid state physics, nuclear physics, and elementary particle physics. Lecture, 4 hours. Prerequisite: PHYS 222 and MATH 266.

POLITICAL SCIENCE

POLS 115 American Government 3 cr. Principles of American government, political behavior, institutions.

POLS 116 State and Local Government 3 cr. Structures, politics, and behavior in state and local governments.

PSYCHOLOGY

PSY 111 Introduction to Psychology 3 cr. A survey of the scientific study of behavior and mental processes. Topics studied include development of normal and abnormal behavior, learning, biopsychology, development, memory, personality, cognition, therapy, and social psychology. This course is a prerequisite to most other psychology courses.

PSY 201 Dynamics of Adjustive Behavior and Mental Health 3 cr. Presents the principles of behavior adjustment. It is concerned with how socially relevant behavior is learned, what the motivating functions are, and how they operate in life. Prerequisite: PSY 111.

PSY 241 Introduction to Statistics 3 cr. Examination of basic concepts in measurement, scaling, binomial and normal distribution, descriptive and inferential statistics, and hypothesis testing. Introduction to statistical tests for research, with special emphasis on t-test and chi-square. Prerequisites: MATH 103 (or higher) or departmental approval and PSY 111.

PSY 242 Research Methods in Psychology 3 cr. A study of the scientific method as it is used in the investigation of problems in psychology. A variety of types of research methodologies, as well as the advantages and disadvantages of their use. Ethical implications of the use of various methodologies will also be discussed. Prerequisites: PSY 241 or department approval.

PSY 252 Child Psychology 3 cr. Overview of theories of human development from conception through childhood including physical, cognitive, language, social, and self-help skills in family, school, and community settings. Prerequisite: PSY 111.

PSY 255 Child and Adolescent Psychology 3 cr. Overview of theories of human development from conception through adolescence including the physical, cognitive, language, social, and educational aspects of the individual development. Special emphasis will be given to the individuals learning capabilities. This course cannot be applied towards a B.A. in Psychology or the B.S. in Addiction Studies. This course cannot be applied towards the Psychology or Addiction Studies majors, minors or concentrations. Prerequisite: PSY 111.

PSY 270 Abnormal Psychology 3 cr. A survey of the classification, symptoms, and etiology of psychological disorders.

PSY 297 Practicum 2 cr. Participation in individual, group, and family counseling in an agency or hospital involved in addiction counseling. Prerequisite: PSY 111.

PSY 313 Industrial Organizational Psychology 3 cr. This course will examine human behavior in industrial and organizational settings. Psychological principles are applied to selection, placement, and training. The effectiveness of individuals and groups within organizations, including leadership and control, conflict and cooperation, motivation, and organizational structure and design, is examined. Prerequisite: PSY 111.

PSY 338 Professional Relations and Ethics 3 cr. Study of Federal Confidentiality Laws and ND Commitment Law and process in order to protect the rights of the client. Prerequisite: PSY 111.

PSY 344 Dynamics of Addiction 3 cr. Emphasizes the history of drugs of abuse, theories and controversies regarding chemical dependency, and multidisciplinary approaches to treatment. Prerequisites: PSY 111.

PSY 349 Psychopharmacology 3 cr. An introduction to behavioral pharmacology, including the basics of pharmacology, psychology, and neuroscience needed to understand drugs of abuse. Prerequisite: PSY 111.

PSY 352 Adolescent Psychology 3 cr. Study of physical, cognitive, emotional, social, and behavioral parameters of adolescence from preteen to young adulthood. Prerequisite: PSY 111.

PSY 365 Evolutionary Psychology 3 cr. Examines the important aspects of human behavior as it is explained as a result of natural selection. The course will focus on a number of topics including sex differences, mate selection, selfishness and altruism, homicide and violence. Prerequisite: PSY 111.

PSY 375 History and Systems of Psychology 3 cr. Examines the historical development of the science of psychology. Special emphasis is placed upon cultural context and its influences on the developing systems of psychology. Prerequisite: PSY 111.

PSY 376 Social Psychology 3 cr. An interdisciplinary approach to the study of behavior of individuals in relation to social stimulus situation. Prerequisites: PSY 111 and SOC 101.

PSY 379 Psychology of Adult and Aging 3 cr. Overview of theories of human development from young adulthood through old age focusing on demands of personal adjustment, family, work, retirement, and community life. Prerequisites: PSY 111; recommended: PSY 211 or 312.

PSY 391 Honors Seminar 3 cr. Topics of research interest to the psychology faculty will be presented to those that are enrolled in the University's Honors Program.

PSY 394 Independent Study 1-4 cr. Election of a topic and a course of study. Must be approved by a psychology staff member and the psychology chair. Student must be a psychology major and have 12 semester credits.

PSY 410 Cognitive Psychology 3 cr. Examines the research dealing with the processing of sensory information, attention, short term and long term memory, decision making and problem solving, as well as related topics. Prerequisite: PSY 111.

PSY 411 Introduction to Personality Theories 3 cr. Examines the basic concepts of personality development as viewed by the psychoanalytic, learning, humanistic, and trait-type theorists. Special emphasis is placed on the comparison of various perspectives. Prerequisite: PSY 111.

PSY 413 Theories and Practice of Psychotherapy 3 cr. Aimed at the development of a balanced view of the major concepts of various therapies and an awareness of practical applications and implementation of techniques used by the various therapists. Prerequisite: PSY 111.

PSY 420 Family Dynamics 3 cr. Examines theories and research in psychology as they relate to the understanding of family structure, process, development, and change. Prerequisites: PSY 111 and 413.

PSY 423 Introduction to Counseling 3 cr. Study of the theories of counseling and application of these principles for dealing with behavioral problems in agencies, schools, or hospitals. Prerequisite: PSY 111.

PSY 424 Advanced Counseling 3 cr. Further study of counseling theory with students being required to develop a workable methodology of their own. Prerequisites: PSY 111, 413, and 423.

PSY 435 Theories of Learning 3 cr. Examines the basic concepts of learning theory as viewed by the more prominent theorists in the area. Emphasis is placed on the comparison of the various perspectives within historical contexts. Prerequisite: PSY 111.

PSY 460 Sensation and Perception 3 cr. Focus on the principles of our sensory systems and the laws which govern the sensory processes. The course includes research and theories on the visual system, auditory system, chemical senses, and the skin senses. Prerequisites: PSY 111.

PSY 465 Physiological Psychology 3 cr. An introduction to the neuroanatomical and neurophysiological bases of behavior, including learning, reinforcement, eating and drinking, sleep, sexual behavior, and mental disorders. Prerequisite: PSY 111.

PSY 473 Behavior Modification 3 cr. Description of behavioral principles and procedures for assessment and treatment that can be used by helping professionals to enhance behavioral development. Class projects are required. Prerequisite: PSY 111.

PSY 476 Group Dynamics 3 cr. Actual group experience in a lecture/lab format. Readings and written assignments focus on organizing groups and skills required of group facilitators. A problem solving/personal growth group meets each week. Enrollment by permission of instructor. Prerequisite: PSY 111.

PSY 485 Practicum 15 cr. Participation in one of the North Dakota consortia to provide experience in the addiction field. This is a 4.5 month, full time experience, where the student actively participates as an addiction counselor in training. This experience is restricted to addiction studies majors.

PSY 486 Practicum 15 cr. Participation in one of the North Dakota consortia to provide experience in the addiction field. This is the second part of the nine month practicum experience required for licensure as an addiction counselor. The course involves a 4.5 month, full time experience, where the student actively participates as an addiction counselor in training. This experience is restricted to addiction studies majors.

PSY 490 Senior Research Paper 3 cr. Students will formulate an original research topic and write a paper on that topic. Prerequisite: senior status and psychology major.

PSY 491 Senior Seminar in Psychology 2 cr. Overview of psychology as a discipline and a synthesis of biological and psychological factors in human behavior. Prerequisite: senior status, psychology major.

SCIENCE

SCI 102 Introduction to Radiologic Technology 1 cr. Designed to acquaint freshman radiologic technology students with the depth and breadth of this field. Students visit the radiology department of a local hospital. The course is presented by the education coordinator of a local school of radiologic technology. Lecture, 1 hour.

SCI 240 Research Methods 2 cr. This course will introduce students to library skills, computer skills and communication skills used to plan and carry out research projects. Students will search for, read, and discuss journal articles; write and edit project proposals; and learn basic data management and analysis skills.

SCI 391 Teaching Science in the Secondary School 3 cr. Study of science teaching in the junior and senior high school with emphasis on clinical experience. Basic techniques for all disciplines are individualized in practice. Emphasis on teaching an investigative approach to science. Prerequisite: Admission to Teacher Education.

SCI 405 Radiologic Technology Clinical 60 cr. Students spend 24 months in a hospital environment. Education includes both didactic and clinical studies. Restricted to students who have been admitted to the Radiologic Technology degree program.

SCI 426 Elementary Science Methods 4 cr. Study of basic concepts of science within a framework of elementary school teaching methodology. Interpretation of science content, learning theory, curriculum approaches, instructional strategies, and lesson planning are emphasized. Includes extensive clinical experience. Lecture, 4 hours. Prerequisite: Admission to Teacher Education.

SCI 480 Seminar 2 cr. Students present and discuss original student research projects in science. Prerequisite: SCI 240, senior status, permission of instructors.

SOCIAL SCIENCE

SS 283 The Ethnic Experience in America 3 cr. This course provides an overview of the historical and contemporary situation of America's principal ethnic minority groups. Native American (with a special emphasis on North Dakota), Latino, African-American, and Asian-American experiences are examined.

SS 391 Social Science Methods and Micro Teaching 3 cr. A methods course designed for those intending to teach in the social sciences. Includes practicum. Division permission required. Must be admitted to Teacher Education. (Offered fall semester only.)

SS 399 Readings in Social Science 1-3 cr. Study and discussion of readings in social science, particularly those which cross disciplinary lines.

SOCIAL WORK

SWK 200 Interpersonal Skills 3 cr. Verbal and nonverbal interpersonal skills relating to common interaction as well as those interactions generic to planned changed processes of generalist social work practice. This course requires 50 hours of volunteer work experience. Prerequisites or corequisites: SWK 256 and 255.

SWK 255 Social Work Profession 3 cr. History of the social work profession, goals, philosophy, base assumptions, and outcomes within the generalist framework of social work fields of practice. Prerequisites or corequisites: SWK 200 and 256.

SWK 256 Development of Social Welfare 3 cr. History, value, political, and economic goals, philosophy base assumption, and conditions which influence the development and provision of social welfare services. SWK 256 is a prerequisite for all other social work courses.

SWK 330 Behavior in Pluralistic Society I 3 cr. The underlying theoretical perspectives of sociological, psychological, biological, and spiritual systems relative to human growth and development from birth to adolescence with emphasis on ethnic, racial, and cultural diversity characteristic of American pluralism. Prerequisite: SWK 200, SOC 101, PSY 111, and BIOL 115.

SWK 331 Behavior in Pluralistic Society II 3 cr. The underlying theoretical perspectives of the individual relative to the nurturing systems of family, social, and cultural networks, and the sustaining systems in terms of the communities and institutions within which that individual functions. Prerequisites: SWK 200, SOC 101, PSY 111, and BIOL 115; Corequisite: SWK 330.

SWK 335 Social Work Methods I 3 cr. Problem solving, assessment, and application of interventive techniques with individuals and families in the context of generalist practice. Prerequisite: SWK 331 and admission to the social work program. Corequisite: SWK 340.

SWK 340 Social Welfare Policy 3 cr. A framework for the analysis of social welfare policy, policy formation, decision-making, the impact on human service professionals, and the delivery of social welfare services. Prerequisite: SWK 331. Corequisite: SWK 335.

SWK 379 Aging Practice and Policies 3 cr. Study of social welfare policies which sanction and direct services and welfare for the elderly.

SWK 401 Contemporary Issues with Native American Families 3 cr. This course will survey contemporary issues that Native American families face in today's society and how these influences effect the context of family life and the helping process.

SWK 426 Social Work Methods II 3 cr. Problem solving, assessment, and application of interventive techniques with small groups in the context of generalist practice. Prerequisites: SWK 335, 340 and admission to the social work program. Corequisite: SWK 427.

SWK 427 Social Work Methods III 3 cr. Problem solving, assessment, and application of interventive techniques with communities, disciplinary boards, and organizations in the context of generalist practice. Prerequisites: SWK 335, 340 and admission to the social work program. Corequisite: SWK 426.

SWK 432 Field Experience 10 cr. Structured and educationally directed learning experiences in public and private human service agencies. Prerequisite: SWK 426, 427 and admission to the social work program. Corequisites: SWK 433, 434, and 491.

SWK 433 Field Seminar 1 cr. Integration of social work theory with the reality of specific practice. Corequisites: SWK 432, 434, and 491.

SWK 434 Field Research 1 cr. Senior research project, formal written report, and oral presentation of the major research paper. Corequisites: SWK 432, 433, 435.

SWK 491 Senior Seminar 2 cr. Integration of program outcomes with application of knowledge, values, and skills necessary for field entry, human service program evaluation, value and ethical consider-

ations, and the development and implementation of future career objectives. Corequisites: SWK 432, 433, and 434.

SOCIOLOGY

SOC 101 Introduction to Sociology 3 cr. An introductory analysis of the nature of society, the interrelationships of its component groups and the process whereby society persists and changes. SOC 101 is a prerequisite for all 300 and 400 level SOC courses.

SOC 199H Idea of Society 3 cr. Models of human nature and of society. The sociological approach to seeing the world. Societal problems. Honors Program admission or 3.30 cumulative GPA and permission of the instructor is required.

SOC 201 Social Problems 3 cr. A sociological analysis of major social problems.

SOC 210 Introduction to Anthropology 3 cr. Examination of customs, institutions, and social organization of preliterate societies. Brief consideration of physical and biological aspects of human development.

SOC 252 Criminology 3 cr. Study of criminal behavior, including the nature and causes of crime, and of official responses to criminal law violations. Prerequisite: SOC 101.

SOC 255 Changing American Family 3 cr. History, structure, and functions of the family as a social institution. Emphasis is placed on changing patterns of dating, mate selection, cohabitation, marriage, gender roles, dual career families, divorce and remarriage.

SOC 278 Social Research Methods 3 cr. Study of the basic methods of empirical social science research. Topics include techniques and theory of research design, formulating and testing hypotheses, measurements, sampling, modes of observation, data management, and elementary data analysis.

SOC 299/499 Special Topics in Sociology 1-3 cr. These are flexible courses that may be taught depending on student needs. The design of the course is to present the student an opportunity to concentrate on various topics.

SOC 353 Sociology of Education 3 cr. A critical analysis of both formal and informal learning in society. This course focuses on the structure and function of the learning process, and the impact of social structure upon the institution of education. Prerequisite: SOC 101.

SOC 357 Sociology of Religion 3 cr. A sociological analysis of religious belief, behavior, organization, and the relation between religion as an institution and the larger society of which it is a part. Prerequisite: SOC 101.

SOC 361 Comparative Ethnic Studies 3 cr. Examination of the social, political, legal, and economic development of ethnic inequality in our American society. Topics include prejudice and discrimination, majority and minority relations, institutionalized racism, intergroup contacts, migration, immigration, affirmative action and equal opportunity programs. Prerequisite: SOC 101.

SOC 362 African-American Culture 3 cr. Consideration of the shaping of Black American cultural lifestyle from African origins onwards. Emphasis on music and religious forms. Prerequisite: SOC 101.

SOC 363 Sociology of Gender 3 cr. This course focuses on the social, political, legal, and economic dimensions of contemporary women's issues. Topics include the feminization of poverty, reproductive technology, single parenthood, childcare policies, aggression against women, and institutionalized sexism. Prerequisite: SOC 101.

SOC 365 Social Stratification 3 cr. Study of inequality. Special emphasis is placed on differences in social class, status, and power. Prerequisite: SOC 101.

SOC 369 Deviance and Social Control 3 cr. Sociological analysis of the creation and maintenance of the deviant status and its relevance to the question of social control and social order. Prerequisite: SOC 101.

SOC 371 Sociobiology 3 cr. Study of the evolutionary basis of social behavior. Major topics include a brief history of the discipline within a context of the nature-nurture debate, comparative studies of animal and human behavior, and the evolutionary basis of sexual behavior, aggression, and stratification. Prerequisite: SOC 101.

SOC 374 Cultural Studies 3 cr. This course provides students with a basic understanding of the dynamics of culture and its impact on global change. Areas covered include: institutional structures of culture, cultural history and legacies, production and distribution of culture, effects of culture on meaning and social action. Prerequisite: SOC 101.

SOC 376 Social Psychology 3 cr. Study of the social sources and patterns of perception, attribution, socialization, and interpersonal interaction. Prerequisite: SOC 101.

SOC 399 Senior Readings 3 cr. Read and write report on major sociological works. Prerequisite: SOC 101, 3 cr of sociology, and consent of instructor.

SOC 401 Research Project 3 cr. Major paper involving literature review or empirical research. Prerequisite: SOC 101, 3 cr of sociology, and consent of instructor.

SOC 455 The Global Family 3 cr. Critical analysis of historical and contemporary issues related to courtship, marriage, divorce, and remarriage. This course focuses on problems related to premarital sexual stress, non marital fertility, cohabitation, parenting, step parenting, and the changing roles of males and females. Prerequisite: SOC 101 and 3 cr of sociology.

SOC 459 Complex Organizations 3 cr. Study of social units or human groups deliberately constructed to seek specific goals; examination of origins of large scale bureaucratic structures and their place in contemporary societies, and of factors affecting occupational allocation including labor market position of women and minorities. Prerequisite: SOC 101 and 3 cr of sociology.

SOC 478 Sociological Theory 3 cr. Consideration of the history of sociological thought as well as an analysis of contemporary theory. Prerequisite: SOC 101 and 3 cr of sociology.

SOC 497 Practicum/Internship 3 cr. Placement in applied setting for practical experience. Course is offered on a pass/fail basis. Community and campus settings are available. Prerequisite: SOC 101, 3 cr of sociology, and consent of instructor.

SPANISH

SPAN 101 Beginning Spanish I 4 cr. For beginners or those entering with one or two years of high school Spanish. Introduction to listening, speaking, reading, writing and culture.

SPAN 102 Beginning Spanish II 4 cr. A continuation of Beginning Spanish I. Prerequisite: SPAN 101.

SPAN 201 Intermediate Spanish I 4 cr. Review of basic Spanish with increased practice in conversation, reading and writing. Prerequisite: SPAN 102, three years of high school Spanish, or consent of instructor.

SPAN 202 Intermediate Spanish II 4 cr. Continuation of SPAN 201. Prerequisite: SPAN 201.

SPAN 340 Spanish Phonetics 2 cr. Theoretical and practical study of Spanish phonetics. Practice in pronunciation and intonation. Prerequisite: SPAN 201 or consent of instructor.

SPAN 341 Spanish Conversation and Composition 3 cr. Advanced practice in oral and written skills using cultural readings and other media. Prerequisite: SPAN 202 or consent of instructor.

SPAN 342 Introduction to Hispanic Literature 3 cr. Designed to improve language skills with an emphasis on reading and to enhance the student's ability to understand literature. Includes study of poetry, drama, and narrative from the Spanish speaking world. Prerequisite: SPAN 341 or consent of instructor.

SPAN 343 Spanish Peninsular Culture 3 cr. Readings in culture and society of Spain. Prerequisite: SPAN 341 or consent of instructor.

SPAN 344 Latin American Culture 3 cr. Readings in culture and society of Latin America. Prerequisite: SPAN 341 or consent of instructor.

SPAN 441 Spanish Peninsular Literature 3 cr. Survey of Spanish Peninsular literature from El Poema del Cid through the Golden Age to the 20th Century. Prerequisite: SPAN 342 or consent of instructor.

SPAN 442 Latin American Literature 3 cr. Survey of Latin American literature from the discovery to the 20th Century. Prerequisite: SPAN 342 or consent of instructor.

SPAN 450 Senior Capstone Project in Spanish 3 cr. Individual research project on a cultural topic approved by the instructor one semester prior to enrollment in the course.

SPECIAL EDUCATION

SPED 101 Introduction to Developmental Disabilities 3 cr. A survey of the various types of developmental disabilities, the philosophy of service, team planning, individual program planning, and legal and ethical considerations for persons with developmental disabilities.

SPED 110 Introduction to Exceptional Children 3 cr. A survey course examining exceptionalities of learning with a focus on understanding current social and educational responsibilities.

SPED 111 Health Care in Developmental Disabilities I 3 cr. This course concentrates on basic medication concepts and procedures, First Aid, CPR, staff responsibilities for medications and health issues, nutrition information, and issues in sexuality.

SPED 112 Health Care in Developmental Disabilities II 2 cr. This course focuses on the most common types of seizures and provides information on how to observe, report, and assist persons during seizures. Included also are techniques of positioning, turning, and transferring persons with physical disabilities.

SPED 113 American Sign Language I 3 cr. This course is designed to introduce students to American Sign Language. Students will have the opportunity to develop vocabulary and conversational skills in this language of the deaf community.

SPED 115 American Sign Language II 3 cr. This course is designed to continue where ASL I ended. Students will continue to develop vocabulary and expand conversational skills. Deaf culture will be further emphasized in this course through expanded contact with the deaf community.

SPED 117 Manually Coded English I 2 cr. An introduction to Signing Exact English and finger spelling. A basic sign vocabulary is presented.

SPED 120 Introduction to Behavior Management 3 cr. This course focuses on principles of behavior; basic behavior management procedures; defining, recording, and charting behavior; and ways to design and implement behavior management programs. It also teaches skills on how to write behavioral objectives.

SPED 130 Organization of Leisure Time in Developmental Disabilities 1 cr. This course focuses on basic concepts and ways to assess recreation and leisure competencies. It provides information on leisure time activities and associated community resources for persons with developmental disabilities.

SPED 140 Human Development 2 cr. A study of the sequence of human development from conception to late childhood, adolescence through adulthood, with emphasis on motor, language, cognitive, emotional, and social characteristics.

SPED 210 Introduction to the Education of Children Who are Deaf or Hard of Hearing 2 cr. A foundations course which surveys the history of the education of children who are deaf or hard of hearing. An introduction to present techniques as well as historical philosophies is presented. Prerequisite SPED 110.

SPED 217 Manually Coded English II 2 cr. An intermediate sign language course emphasizing the philosophy of Total Communication via Signing Exact English (SEE). Strategies and various sign systems will be introduced. Prerequisite: SPED 117.

SPED 221 Techniques of Behavior Management 2 cr. This course introduces a value-based process for developing and evaluating major program goals for clients, the relationship of assessment to goal setting, and strategies for achieving goals and objectives.

SPED 222 Supervised Field Experience in Developmental Disabilities 4 cr. Practical experience in the development of individual program plans; administration, documentation, and storage of medications; positioning, turning, and transferring techniques; and observation, assistance and documentation of seizure activities.

SPED 223 Dual Diagnosis: Mental Retardation and Psychopathology 1 cr. An overview of issues related to supporting people who experience both mental retardation and mental illness including common psychopathological disorders, identification of the need for services, treatment options, and standards for service provision.

SPED 250 Developing Communicative Interactions 2 cr.

This course is designed to provide training to personnel who work with persons who exhibit serve disorders and deficiencies. It is a multimedia training program in the area of social interaction, communication and language skills development, and intervention.

SPED 255 Aging and Developmental Disabilities 2 cr.

This course is designed to address training needs of direct service delivery and case management personnel working with aging/aged persons with developmental disabilities in community programs. It covers demographic and philosophical considerations, health, social and legal issues, and coordination of services.

SPED 298 Experience in the Classroom 1 cr. Classroom experience designed to acquaint the student with exceptional children.

SPED 301 Grammar and Linguistic Analysis for Children Who Are Deaf or Hard of Hearing 3 cr. Strategies for teaching grammatical structures and the rules of language usage to children with hearing impairments. Prerequisite: SPED 210.

SPED 310 Introduction to Developmental Disabilities 3 cr.

A survey course in the education of persons with developmental disabilities including handicapping conditions, legal aspects, history, parental perspectives, educational programming, service delivery systems, and current research. Prerequisite: SPED 110.

SPED 340 Classroom Assessment for Mental Handicaps 3 cr.

The use of various tests for educational programming, instructional objectives, class structure, task analysis, behavior modification, and contingency management. Prerequisite: Admission to Teacher Education.

SPED 379 Leadership in Special Education 1-2 cr. Individualized class designed to provide instruction in leadership processes for professional organizations in special education. Prerequisite: Instructor approval.

SPED 402 Theory and Methods of Teaching Language to Children Who Are Deaf or Hard of Hearing 5 cr.

Language development, language delay resulting from hearing loss, and language for preschool and school age children with hearing loss. Strategies for oral and written language to preschool and school age children with hearing loss. Prerequisites: SPED 210, SPED 301, CD 321, and Admission to Teacher Education.

SPED 404 Theory and Methods of Teaching Speech to Children Who Are Deaf or Hard of Hearing 5 cr.

Speech development, speech production deficits resulting from hearing loss, and models for teaching speech to preschool and school age children with hearing loss. Strategies for teaching speech to preschool and school age children with hearing loss. Prerequisites: SPED 210, CD 320, and Admission to Teacher Education.

SPED 406 Psychological Characteristics of Children Who Are Deaf or Hard of Hearing 2 cr.

Awareness and understanding of various influences that a hearing loss has on a person's social, vocational, emotional, and psychological development. An overview of the literature along with various implementation and techniques as models. Prerequisites: SPED 210 and Admission to Teacher Education.

SPED 408 Methods of Teaching Reading and Academic Subjects to Children Who Are Deaf or Hard of Hearing 4 cr.

Methods of teaching reading, mathematics, social studies, and science to children with hearing loss with an emphasis on the development of cognition and language. Curricula and strategies for preschool and school age will be addressed. Prerequisite: ED 352, SPED 402.

SPED 409 Aural Rehabilitation 2 cr. Personal and classroom amplification systems for preschool and school age children with hearing impairments. Prerequisite: CD 342.

SPED 410 Introduction to Learning Disabilities 3 cr.

An overview of the field of learning disabilities including various concepts, strategies, practices, and trends. Prerequisite: SPED 110.

SPED 420 Adaptations in Regular Education 2 cr. This course outlines a variety of curriculum adaptations for elementary and secondary teachers. These adaptations can be used in many regular education settings.

SPED 441 Methods of Teaching Persons with Mild Mental Handicaps 3 cr.

Focuses on programming the developmental sequences in reading, writing, arithmetic, and language in a life experience curriculum for persons with mild mental retardation. Public Law 101-476 (IDEA) and writing IEP's are stressed. Prerequisites: SPED 310; Admission to Teacher Education.

SPED 442 Methods of Teaching Persons with Moderate Mental Handicaps 3 cr.

Study of the organization of programs and curricula in behavior management, task analysis, methods, and materials for educating persons with moderate mental handicaps. Prerequisites: SPED 441; Admission to Teacher Education.

SPED 444 Vocational Programming for Persons with Mental Handicaps 3 cr.

Methods and materials for vocational training of students including vocational evaluation, job analysis, work skills, job placement, on-the-job training, and follow-up services. Prerequisites: SPED 310 and Admission to Teacher Education.

SPED 445 Collaborative Partnerships in Special Education 3 cr.

Basic principles of individual and group guidance necessary for successful integration of persons with mental handicaps into society; includes techniques of parental interviewing and reporting designed to provide home-school communication.

SPED 450 Interdisciplinary Issues in Developmental Disabilities 1 cr. A seminar course on developmental disabilities and interdisciplinary service strategies.

SPED 491 Senior Seminar in Special Education 1-4 cr.

Seminars on various topics for seniors in the mental retardation and education of the deaf.

SPED 497 Externship in Developmental Disabilities 8 cr.

Senior practicum for nonteaching DD majors in community programs or agencies serving persons with mental retardation or other developmental disabilities.

SPED 498 Advanced Field Experience 1 cr.

A supervised practicum in the habilitation of preschool and school age children. Prerequisite: Admission to Teacher Education and instructor approval.

THEATRE

THEA 110 Introduction to Theatre Arts 3 cr. Basic introduction to the theory and principles of theatrical presentation including dramatic literature, acting, stagecraft and dramatic analysis, with emphasis on practical application. This course is designed for non-communication arts majors.

THEA 120 Readings in Dramatic Literature 2 cr. An introductory course in the literature of drama. Plays representative of important periods of theatre history are discussed in their cultural context. Students work to understand the plays' potential meanings for modern audiences.

THEA 161 Acting I 3 cr. A basic introduction to acting styles and techniques with emphasis on mime, improvisation, characterization, voice movement, and script analysis.

THEA 162 Audition Techniques 1 cr. The selection, rehearsal, and performance of musical theatrical material for auditions.

THEA 201 Theatre Practicum 1 cr. Participation in a significant capacity in any communication arts sponsored theatrical production above and beyond the requirements of a specific course. Repeatable up to eight credits.

THEA 202 Ryan Audition 1 cr. Credit offered to those students selected to audition for the Irene Ryan Regional Scholarships. The course will be the selection, rehearsal, and presentation of various theatrical pieces.

THEA 221 Costuming 2 cr. Introduction to the art of theatrical costuming from history through construction. Included will be an introduction to the design process.

THEA 222 Make-up 2 cr. Theory and practical laboratory work in stage make-up applications, including mask building.

THEA 250 Creative Drama 3 cr. The study of creativity, and the relationship of drama and creative play culminating with activities centering around storytelling and children's theatre.

THEA 251 Puppetry 3 cr. This course is designed to introduce the student to the history, construction, and manipulation of a variety of puppets. Students will also work with scripting a puppet play, building scenery, and recording a production. A final project will be the public performance of a finished puppet play.

THEA 270 Stagecraft 2 cr. Fundamental approach to the implementation of the scenic artist's designs for the stage through the study of set construction, painting techniques, and technical coordination.

THEA 350 Theatre History, Criticism, and Literature I 3 cr. A survey of the development of the theatre and dramatic literature from Greeks to 1642. Prerequisite: THEA 120.

THEA 351 Theatre History, Criticism, and Literature II 3 cr. A complete and critical study of the theatre from 1642 to 1900. Dramatic analysis, performance theory and style, architecture, advancements, and individual contributors are included in the study. Prerequisite: THEA 120.

THEA 352 Theatre in the Classroom 3 cr. This course will allow the student to build on the foundation learned in THEA 250 Creative Drama. Students will continue to explore various approaches to the delivery of creative drama activities. A project design and in-classroom work will be a final project. Prerequisite: ED 320.

THEA 353 Plays for the Young 3 cr. The main thrust of this course is to read and study the history, range, progression, and variety of dramatic materials for and with the young. The student will develop a critical attitude towards such works and develop an insight and expertise in the selection of materials appropriate to different ages and situations.

THEA 361 Acting II 3 cr. In-depth study of modern trends in acting technique with special emphasis placed upon the creation of character through various acting styles. Prerequisite: THEA 280 or consent of instructor.

THEA 371 Advanced Scene Design 2 cr. Advanced methods in floorplanning, perspective drawing, and model building as it relates to the theatre. Design will be done in a variety of theatre and stage configurations. Prerequisite: THEA 270.

THEA 372 Stage Lighting 2 cr. Principles of theatrical lighting and lighting design as applied to the creation of the theatrical environment. Prerequisite: THEA 270 or consent of instructor.

THEA 385 Directing 3 cr. Fundamentals of composition, stage movement, stage business, and rehearsal as applied to the directing of plays. Prerequisite: THEA 161 or consent of instructor.

THEA 386 Playwriting 3 cr. A study of the basic principles for writing for the stage. Emphasis will be on developing short forms of production—the ten-minute play and the one-act play.

THEA 414 Theatre Management 3 cr. This course will emphasize the business of theatre: Production Procedures from beginning to end; grant writing, box office procedures, publicity policies, and audience development. Prerequisite: BADM 301.

THEA 450 Contemporary Drama 3 cr. A study of dramatic literature from 1952 to the present. Plays from England, Europe, and the Americas will be represented. Course may be repeated as the content changes.