171 The Dance Experience (4) (2H)
A comprehensive course to introduce the beginning student to contemporary and classical dance forms including modern, ballet, and jazz dance styles. Discussions and readings cover historical and aesthetic perspectives. Live performances and studio practice contribute to students’ experiential learning.

201A Modern Dance Technique II (3)
Prereq: 103A or perm. required. Development of basic technical skills for modern dance. More complex coordinations which add more spatial and dynamic considerations.

202A Modern Dance Technique II (3)
Prereq: 201A or perm. required. Further development of 202A.

201B Ballet Technique II (2)
Prereq: 103B or perm. required. Expanded balletic movement vocabulary with continued emphasis on basic technical skills. Musicality will be emphasized.

202B Ballet Technique II (2)
Prereq: 201B or perm. required. Further development of 202B.

201C Intermediate Composition (2)
Prereq: 103C or perm. Choreographic studies to enhance the student’s understanding and appreciation of the creative process by developing the concepts of rhythm, space, and dynamics into longer, more detailed studies.

202C Intermediate Composition (2)
Prereq: 201C or perm. Continuation of 201C.

203C Intermediate Composition (2)
Prereq: 202C or perm. Further development of 202C.

204D Jazz Dance Technique II
Development of movement skills from various styles of jazz using a series of challenging exercises and movement phrases to improve technique, build strength, stamina, and performance quality.

211 Creative Listening for Dance (1)
This course affords opportunity for students to gain knowledge of different musical styles through exposure to a wide array of music listening experiences. Students are encouraged to share musical interests and tastes.

220 Dance Technique II (2)
Prereq: 120 or equiv. (A) modern dance, (B) ballet, (C) jazz. (D) African.

231 Introduction to Dance Kinesiology (2)
Introduces student to basic anatomical materials, kinesiological concepts, and their relationship to production of dance movement.

240 Practicum in Teaching Dance I (1)
Prereq: perm. Observation and assistance in student teaching. May be repeated.

250 Ethnic Dance of Non-Western Cultures (2)
Dances from selected non-Western cultures with emphasis on style and related folklore.

255 Ethnic Dance of Western Cultures (2)
Dances from selected Western cultures with emphasis on style and related folklore.

271 Black Dance Forms (4) (2H)
A lecture and studio/lab course that will familiarize students with Black dance forms and the contributions African Americans have made to the development of dance in America. Discussions, readings, videotaped material, live performances, and studio practice will all contribute to the students’ experiential learning.

301A Modern Dance Technique III (3)
Prereq: 203B or perm. required. Refinement of technical skills through more complex movement patterns. Additional emphasis on performance, phrasing, dynamics, and spatial concerns.

302A Modern Dance Technique III (3)
Prereq: 203A or perm. required. Continuation of 301A.

303A Modern Dance Technique III (3)
Prereq: 302A or perm. required. Further development of movement training designed to improve the functional and expressive aspects of movement.

301B Ballet Technique III (2)
Prereq: 203B or perm. required. Employment of technical skills through more complex balletic patterns and expanded classical vocabulary. Additional emphasis on performance, phrasing, and dynamics.

302B Ballet Technique III (2)
Prereq: 301B or perm. required. Continuation of 301B.

303B Ballet Technique III (2)
Prereq: 302B or perm. required. Further development of 302B.

301C Advanced Composition (2)
Prereq: 203C or perm. The synthesis of choreographic elements, devices, and musical or sound choices into studies having a sense of form and content.

302C Advanced Composition (2)
Prereq: 301C or perm. Continuation of 301C.

303C Advanced Composition (2)
Prereq: 301C or perm. Further development of 302C.

304D Jazz Dance Technique III
Refinement of jazz dance skills through a more complex series of exercises, spatial progressions, and movement phrases. Additional emphasis on performance quality, dynamics, and range of motion.

310 Accompaniment for Dance (2)
Prereq: 111 or perm. Basic problems in accompanying dance and analysis of dance forms related to accompaniment.

311 Midi Composition for Dancers (3)
This course is about creating musical compositions using a computer sequencer and sample based synthesizers. The primary objectives are gaining a working knowledge of a MIDI and investigating the quality of performance; spatial, and dynamics of dance. Choreographer-composer relationship.

312 Music for Dance II (3)
Prereq: 111 or equiv. Also for music composition majors who wish to write for dance theater. History of music for dance. Choreographer-composer relationship.

313 Dance Notation I (3)
Prereq: perm. Principles of dance notation.

315A Laban Movement Analysis I (3)
This course surveys the movement analysis theories of Rudolph Laban. Particular attention is given to identifying the dynamics and spatial relationship of movement expression and function. The course includes movement observation, description and practice in a wide variety of settings and applications. No previous dance experience is required.

316 Collaborative Skills for the Dance Musician (2)
Technique and skill training for pianists in accompanying ballet and modern dance technique classes. Includes class and lab sessions.

320 Dance Technique III (2)
Prereq: 220 or equiv. (A) modern dance, (B) ballet, (C) jazz. (D) African

330 Dance Movement Lab (1-5)
Prereq. Addresses individual problems related to the production of movement. Means to augment physical function and expand the qualitative range of the mover are explored.

330A Pilates Reformer Training (1)
Designed to condition students using resistance training on the Universal Reformer and other Pilates apparatus. Students learn exercise principles and techniques for specialized equipment, focusing on correction of body alignment problems, muscle imbalances, strength, and flexibility.

330B Bartenieff Fundamentals (1)
Exploration and practice in a system of movement training designed to improve the functional and expressive aspects of movement.

330C Pilates Mat Training (1)
Includes laboratory practice of 45 mat exercises that train the muscles to improve body stability and mobility. The Pilates method develops precision coordination and concentration while increasing strength and flexibility. Addresses injury rehabilitation from the perspective of preventive training.

331 Analysis of Dance Movement (4)
Prereq: 231. Explores skeletal alignment and deviation, muscular development and function, and mechanical efficiency in production of dance movement. Basic to course study is thorough understanding of principles of stability and motion as they relate to dance.

332 Fitness for the Whole Mover (2)
Introduces the basics of fitness in practice and theory. Strength, flexibility, aerobic conditioning, and relaxation as a part of the fitness continuum are explored through a variety of approaches to creating and attaining fitness goals.

333 Pilates Teaching Practicum (2)
This course is designed to provide supervised teaching experience and practice for students preparing to enter the Pilates Teacher Certification Program. Students will conduct practice teaching on all Pilates apparatus, learning body alignment, exercise prescription and progress assessment techniques.

351 Dance Cultures of the World I (4) (2C)
Introduction to dance cultures of the Western world (excluding Western art dance). Function of dance in society and its relationship to other arts.

352 Dance Cultures of the World II (4) (2C)
Same as 351.

353 Dance Cultures of the World III (4) (2C)
Same as 351.

370 Viewing 20th Century Dance (4)
Prereq: not open to students who have had 170, jr and above. Art of dance from broad point of view, involving dance viewing, literature, and participation. Deals with aesthetic, psychological, social, and cultural aspects of dance.

380 Practicum in Dance Production (1)
Prereq: perm. Supervised lab practice in production and performance. May be repeated.

385 Dance Repertory (3, max 12)
Prereq: majors only, audition, and perm. Rehearsal and performance of choreographic works taught by choreographer or reconstructors with aid of videotape, film, and/or dance scores.

401A Modern Dance Technique IV (3)
Prereq: 303A or perm. required. Employment of technical skill to address the more subtle demands of performance focus, projection, expressivity, and dynamic range.

401B Ballet Technique IV (2)
Prereq: 303B or perm. required. Employment of technical skills and performance demands within the classical ballet tradition.

402A Modern Dance Technique IV (3)
Prereq: 401A or perm. required. Continuation of 401A.

402B Ballet Technique IV (2)
Prereq: 401B or perm. required. Continuation of 401B.

403A Modern Dance Technique IV (3)
Prereq: 402A or perm. required. Further development of 402A.

403B Ballet Technique IV (2)
Prereq: 402B or perm. required. Further development of 402B.

404D Jazz Dance Technique IV
Advanced development of refined jazz dance skills that address the demands of preprofessional performance.
Courses / Dance

411 Dance Notation II (3)
Prereq: 313 or perm. Continuation of 313 with more advanced reading and writing in notation.

420 Dance Technique IV (2)
Prereq: 320. (A) modern dance, (B) ballet, (C) jazz, (D) tap, (E) African.

431 Dance Kinesiology Seminar (2)
Prereq: 331. Assists student to construct anatomically sound and functionally effective dance class.

440 Practicum in Teaching Dance II (1-2)
Prereq: 240 and perm. Student teaching under supervision.

441 Teaching Dance I (3)

442 Teaching Dance II (2)
Prereq: at least 1 qtr of 240; coreq with 440. Principles of teaching dance and their practical application. Dance for adolescents.

443 Teaching Dance III (2)
Prereq: at least 1 qtr of 240; coreq with 440. Principles of teaching dance and their practical application. Dance for adults.

460 Senior Seminar (2)
Prepares students for the field of dance and related careers. Skills in writing, networking, and oral presentation, as well as the ability to access available resources, are refined.

471 History of Dance I (4) (2H)
Development of Euro-American dance in the 20th century with focus on contemporary dance through the present.

472 History of Dance II (4) (2H)
Global dance forms: Study of dances in historical and cultural contexts, their functions in society and relationships to contemporary artistic expressions. Focus on topics from traditional and recent research in world dance.

473 History of Dance III (4) (2H)
Development of Euro-American dance from classic times through 20th-century ballet, with emphasis on Baroque, Romantic, and Diaghilev periods.

474 History of Postmodern Choreography and Practice
This course explores postmodern dance (1960-present) from theoretical and practical perspectives. Theoretical and historical readings from dance studies, performance studies, and cultural studies on postmodern dance will combine with the application and investigation of choreographic theories in the dance studio. As the dancing draws on an everyday or pedestrian movement vocabulary, no prior dance experience is necessary. This course will cover artists such as Yvonne Rainer, Trisha Brown, David Gordon, and Bill T. Jones. Postmodern dance aesthetic is interdisciplinary in nature: choreographers frequently collaborate with artists from other disciplines, such as music, visual arts, and theatre. This course is appropriate for students interested in intellectual and experiential artistic practices.

480 Production Problems for Dance Theater (3–6, max 6)
Prereq: perm. Includes choreography, performance, and production aspects of senior projects and other dance events.

488 Dance Choreography and Video Techniques (2)
Prereq: perm. Designed to increase awareness of the possibilities of video in dance, both as a recording tool and a creative tool. The basis of video production and digital editing will be introduced in order for dance choreographers to become familiar with video technology applicable to dance.

490 Independent Study (1–10)
Prereq: perm.

494 Internship (1–16)
Prereq: perm. Provides credit for internship experience in which some dance majors may participate. Internship allows individual to gain actual experience in field of dance and related areas, e.g., apprentice/performing, technical production, arts administration.

495 Special Topics in Dance (1–4)
Special topics relating to the choreography, technique, production elements, or aesthetics of historical or contemporary dance forms.

Deaf Studies and Interpreting (DSI)
The following courses for the proposed A.A.S. in deaf studies and interpreting are available only on the Chico State campus:

111 Sign Language and Deaf Culture I (4)
Different types of deaf and the different languages utilized by deaf people. Includes signing paragraphs, using ASL, PIDSIGN, and SEE, studying culture, and participating in short community-based research projects.

112 Sign Language and Deaf Culture II (4)
Prereq: 111. Continuation from 111 of deaf languages and culture. Includes more than 300 additional signs, continuing to use ASL, PIDSIGN, and SEE, reverse interpreting paragraphs, and studying idioms and slang terms.

113 Sign Language and Deaf Culture III (4)
Prereq: 112. Continuation from 112 of deaf languages and culture. Includes additional signs, continuing to use ASL, PIDSIGN, and SEE, further reverse interpreting of paragraphs, and translating idiom and slang paragraphs. Discusses deaf in mental institutions, prisons, and the court system. Students interpret for University functions and programs.

120 Introduction to Deaf Studies and Interpreting (1)
First of three assessments in deaf studies and interpreting degree program, evaluating knowledge of various sign languages used, types of deaf people using each of the sign languages, cultural aspects of deafness, speed in signing, comprehension speed, and interpreting and reverse interpreting. Offers broad introduction to knowledge and skills required for successful completion of the degree. Covers history of interpreting, career opportunities, ethical considerations, and includes discussion of program courses, seminar paper, and second and third assessments.

161 Orientation to Deafness (3)
Broad overview of field of deafness, focusing on education perspectives, psychosocial precepts, communicative opportunities, support services, and recent technological advances. Benefits parents, educators, vocational rehabilitation counselors, interpreters, and other professionals who come into contact with the deaf and hearing impaired community.

191 Interpreting as a Profession (1)
Prereq: 120. Second of three assessments in deaf studies and interpreting degree program, requiring 50–60 percent improvement from 120 in speed in signing, knowledge of culture, and interpreting and reverse interpreting skills. Includes introduction to praxis, professionalism of interpreting (dress, demeanor, professional organizations), national certification, and ethics of the profession and their impact on personal views.

211 Sign Language and Deaf Culture IV (4)
Prereq: 113. Additional signs and advanced usage of previous signs from first-year sequence. Includes interpreting for University functions, community meetings, and business situations.

212 Sign Language and Deaf Culture V (4)
Prereq: 211. Signs beyond 211 and a larger role in interpreting situations. Additional cultural information (family relationships, sexual relationships, and more) enhances abilities to work with and for the deaf in any context.

213 Sign Language and Deaf Culture VI (4)
Prereq: 212. Signs beyond 212 and specific interpreting within community. Includes cultural information such as family dynamics, time orientation within mental health situations, and ethics for interpreting. Covers sexual signs, regional signs, and idioms specific to area.

221 Practicum I (2)
Prereq: advanced standing, perm. Opportunity to work in teaching, training, and/or interpreting situations under supervision. Provides experience in program development and deals with professionalism in interpreting. May include student-teaching sign language classes within community and businesses, observation of professional interpreters, and critiques of videotaped interpreting situations.

222 Medical Personnel and the Deaf (4)
For those in the emergency care field or studying to be an interpreter. Covers 150 essential signs for hospitals and medical personnel, different types of deaf, different sign languages, working with deaf family members, legal issues for hospitals and nursing homes, sexual signs involved in rape cases and abuse, cultural issues working with male/female deaf, and more.

224 Interpreters and Interpreting (3)
World of interpreting for the deaf, including detailed code of ethics and responsibilities imposed on those who interpret in all fields: platform interpreting, educational interpreting, medical interpreting, religious interpreting, etc. Discusses interpreter role within the courtroom, including the interpreter oath and its significance to the court, the interpreter, and the deaf.

226 Practicum II (2)
Prereq: advanced standing, 221. Opportunity to interpret for the deaf without immediate supervision, extending knowledge of interpreting in specific contexts. Ability to work within community is enhanced, as is ability for teaching basic sign language classes and through critiques of videotaped interpreting situations.

260 Critical and Traumatic Situations (3)
Sexual abuse of deaf children, including causes, incident rate, interviewing techniques, investigation problems, and involvement of law enforcement agencies, schools, hospitals, DARE, and crime prevention programs. Also discusses deaf in disaster situations, emergency response centers, first responders, and problems of victimization of deaf in research projects.

286 Study of Deaf Culture (3)
Sociocultural aspects of deafness, addressing issues of deaf communities such as leadership roles, political activity, and organizational structures, the functioning of deaf within social institutions.

288 Seminar in Deaf Studies (2)
Prereq: advanced standing, perm. Scholarly paper course that allows the student to complete the requirements for graduation and to write a capstone. Requires 45%-50% improvement from 191 and the ability to interpret effectively in any situation for any of the three types of deaf. Covers introduction to Web sites regarding deaf, resume preparation for job interviews (including role plays), discussion and analysis of past and current assessments, and in-depth review of ethics of interpreting and the Americans with Disabilities Act.

298A-E Special Topics (1-4, max 12)
Opportunity to explore topics related to deaf studies either on an individual basis or in a structured course.

Ecology
See Biological Sciences or Environmental and Plant Biology.

Economics (ECON)

103 Principles of Microeconomics (4) (25)
Prereq: MATH 101 or higher math placement. Basic
theory and economic analysis of prices, markets, production, wages, interest, rent, and profits. Analysis of how the capitalist system determines what, how, and for whom to produce.

104 Principles of Macroeconomics (4)
Prereq: MATH 101 or higher math placement.
Basic theory of national income analysis. Causes of unemployment and inflation. Monetary and fiscal policies of government.

213 Current Economic Problems (4)
Prereq: 103 and 104. Application of economic theory to current economic problems with emphasis on public policy implications.

300 Mathematics for Economists (4)
Prereq: 103 and 104 and perm. Mathematical analysis in economics. Calculus and matrix algebra techniques used prominently in economics literature, together with their application to selected problems in economics.

303 Microeconomics (4)
Prereq: 103 and 104. Price system as allocative mechanism. Price and production policies of individual firms and consumers under alternative market conditions and analysis of these policies on social economic resource allocation. Students expected to have understanding of elementary algebra and geometry.

304 Macroeconomics (4)
Prereq: 104, jr. or soph if major. Factors determining level of nation's economic activity and responsible for growth and stability of national income. Part of consideration to model national income while remainder consists of analysis of interrelationships among production, price levels, relative price, employment, and capital formation. Students expected to have understanding of elementary algebra and geometry.

305 Managerial Economics (4)
Prereq: 103, QBA 201, and MATH 163A. Analysis of decision processes; market environment; measurement of influence of policy and nonpolicy variables; sales, cost, and profit forecasting; empirical studies of market structure and pricing; includes regression analysis.

307 History of Economic Thought (4)
Prereq: 103 and 104. Evolution of major economic doctrines: mercantilists, physiocrats, Adam Smith and classical school. May also cover historical school, Austrian school, Alfred Marshall and neoclassical.

312 Economics of Poverty (4)

313 Economics of the Environment (4)
Prereq: 103. Economic analysis of such environmental matters as air, water, and noise pollution, population growth, and land use. Emphasis placed on use of economic theory and empirical research in evaluating environmental policies.

314 Natural Resource Economics (4)
Prereq: 103, MATH 163A. Explores the economic aspects involved in the extraction and utilization of both renewable and nonrenewable natural resources. Topics include the economics of oil and mineral extraction, groundwater use, agricultural practices, and fisheries. It also examines the allocation of property rights and economic benefits and costs of natural resource use.

315 Economics of Health Care (4)
Prereq: 104. Demand for medical care, supply behavior of profit and nonprofit agencies, market structure, adverse selection, public and private health insurance.

316 Economics and the Law (4)
Prereq: 303 or 305 or perm. Major topics are property, contracts, and torts. Class time is divided between economic analysis of these topics in the abstract and actual legal cases that involve these topics.

320 Labor Economics (4)
Prereq: 103. Demand for labor, supply of labor, household production, compensating wage differentials, education and training, discrimination, unions, and unemployment.

322 Economics of Human Resources (4)
Prereq: 103. Investigation of the decisions individuals and families make regarding education, marriage, fertility, labor supply, and child care as well as the effects of public policy on these decisions.

323 Industrial Organization (4)
Prereq: 303 or 305. Market structures, market conduct, antitrust policy, and the efficiency of industries. Emphasis upon firms' strategic behavior in price and nonprice competition. Topics include oligopolistic pricing, strategic entry deterrence, location strategies, product quality, advertising, and research and development. Economic welfare implications of firms' behavior examined.

324 Economics of Antitrust Law (4)
Prereq: 303 or 305. Explores the economic behavior of the firm subject to antitrust laws. Topics include collusion, price discrimination, vertical restraints, and other behavior where the intent may be to monopolize a market. Also examines institutional incentives and economic benefits and costs of antitrust laws.

325 Economics of Energy (4)
Prereq: 103. Applies economic theory to analyzing public policy issues on energy production and use—including such topics as price controls, import dependency, conservation, supply outlook, and industry concentration.

327 Government Regulation of Business (4)
Prereq: 303 or 305 or perm. Why does the government regulate business? Reasons include the inefficiencies of market power, considerations of fairness, excessive competition, natural monopoly, externalities, and reducing transactions costs.

340 International Trade (4)
Prereq: 103. International trade patterns, theories of absolute and comparative advantage, classical and modern trade theory, tariffs, quotas, nontariff barriers, and market access arrangements.

341 International Monetary Systems (4)
Prereq: 104. How exchange rates are determined, fixed vs. flexible rates, government intervention, fiscal and monetary policy in open economy, transmission of inflation and unemployment among nations, international capital movements, covered interest arbitrage, forward exchange, Euro-currency markets.

342 International Economic Policy (4)
Prereq: 340 or 540. Current international economic policies and the political economy of the international economic system. Issues include exchange rate instability and the balance of payments problems including LDC debt situation; international liquidity issues; trade relations among industrial, underdeveloped, and Soviet-bloc countries; multinational corporations; roles of institutions such as World Bank, International Monetary Fund, and GATT.

343 Financial Economics (4)
Prereq: 360 or 304 or 305 or 303; MATH 163A or MATH 263A. In a free economy, income earners' savings flow directly and intermediately to investors who use the proceeds to increase capital, the engine of growth. Intermediaries such as banks, brokers, and exchanges, create instruments such as equities, bonds, mutual fund shares, and their derivatives, which trade in secondary markets. This course examines the interrelationships between institutions, instruments, participants, strategies, and markets.

350 Economic Development (4)
Prereq: 103. This course examines classic and modern theories of economic development and growth focusing on applications to the developing world. Special topics may include debt, trade, reform, foreign investment, education, health, the role of the state, and international aid.

351 Agricultural Development (4)
Prereq: 103 and 104. Patterns of agricultural development: technological and demographic changes in agriculture; socioeconomic problems; marketing arrangements; case studies of specific agricultural development projects.

352 Economic History of the United States (4)
Prereq: 103 and 104. Economic factors in development of U.S. including historical growth of economic institutions such as banking, manufacturing, labor unions, and agriculture, from colonial times to present.

353 European Economic History (4)
Prereq: 103 and 104. Economic growth of developed countries. Focus on industrial revolutions in Great Britain, France, Germany, and the former Soviet Union. Historical experience of these countries related to various theories of economic change.

360 Money and Banking (4)
Prereq: 104. Role and banking system in determination of national income and output. Monetary theory and policy emphasized.

370 Comparative Economic Systems (4)
Prereq: 103 and 104. Theoretical and institutional characteristics of capitalism and socialism with specific emphasis on prevailing economic systems in U.S., Great Britain, and the former Soviet Union.

380 Introduction to Economic Statistics and Econometrics (4)
Prereq: 103 and 104. Statistical methods are developed within an economic context. Fundamental statistical topics include descriptive statistics, basic probability theory, random variables, sampling, estimation, and hypothesis testing.

382 Economic and Financial Analysis with Statistical Packages (4)
Prereq: 104 and either 381 or QBA 201, PSY 221, POL 482, or MATH 250/252. SASE language, using real life small and large data sets along with applying SAS procedures to conduct statistical and financial analysis of economic and business data. Interpretation of statistical output of estimated functions and written reports for rational decision making using economic and business analysis.

406 Monetary Theory and Policy (4)
Prereq: 303 (or 302) and 304. Emphasis on monetary economics. Money demand and supply theory and policies for minimizing cyclical fluctuations in economic activity.

425 Public Policy Economics (4)
Prereq: 104. Survey of economic approach to analyzing public policy issues. Uses concepts of welfare economics, public choice economics, and cost-benefit analysis, as applied to sample of policy subjects.

430 Public Finance (4)
Prereq: 303 or 305 or perm. Role played by government as user of economic resources and redistributor of incomes. Some questions explored: need for government's entry into economy, optimal size of government, selection of tax and expenditures schemes, and effects of government economic activity on private sector.

431 Economics of Transportation (4)
Prereq: 303 or 305. Economics of transportation: regulations of transport and national transportation policy.

444 Futures Markets (4)
Prereq: 360 or EEN 327 or perm. Contracts, trading, institutions, and strategies, including hedging and speculation. No credit if FIN 444 taken.

455 African Economic Development (4)
Prereq: 350 or perm. Economic characteristics of African societies as traditional economies and in process of modernization.

473 Economics of Southeast Asia (4)
Prereq: 350 or perm. Economic characteristics, development problems, strategies, and prospects of countries of Southeast Asia.

474 Economics of Latin America (4)
Prereq: 350 or perm. Economics of Latin American countries, prospects for economic development of the region, nature and origin of institutional obstacles to economic change. Economic heritage of colonial period and subsequent evolution of economic institutions, resources of the area and utilization, and trends in economic activity and policy in post-WWII period.

482 Topics in Econometrics (4)
Prereq: 303 or 301, MATH 163A or calculus, or perm. Basic linear regression models are explored within an econometric context. Simple and multiple linear regression models are introduced.
under classical assumptions and developed in relation to heteroskedasticity, autocorrelation, multicollinearity, and specification errors. Models with varying regressors, models with qualitative dependent variables, and the simultaneous equations model are introduced. Computer assignments provide experience in empirical social science research.

485 Applied Economic Methodology (4)
Prereq: sr standing, no credit if ECON 385, ECON 301, ECON 302, and ECON 304 and ECON 381 or QBA 201. Statistical testing of economic hypotheses employing linear regression. The economic models tested are those commonly employed in microeconomic and macroeconomic literature. Tier II equivalent course.

491 Seminar (3–5)
Prereq: perm. Selected topics of current interest in economics. Topics selected by student in consultation with faculty member.

493X Readings (1–5)
Prereq: perm. Study abroad.

495 Research (3–5)
Methodology, analysis of data, and preparation of research findings.

497 Independent Research (1–15)
Prereq: perm. Research in selected fields of economics under direction of faculty member.

Education
All programs and courses in the College of Education satisfy the standards of the Ohio State Department of Education and NCATE. Consult with your advisor regarding program requirements and scheduling. In particular, note that some pairs or groups of professional education courses must be taken concurrently. Address questions to Student Services, McCracken Hall 124.

Each course in education may be taken no more than twice.

Counselor Education (EDCE)
201 Career and Life Planning Seminar (3)
Prereq: admission to CARE program. Coreq: 101L. A career education seminar for students who are undecided about college major and career. Emphasis on identifying strengths, clarifying values, exploring career options, and developing decision-making skills. Special section for Adult Learning Students only: designed to provide knowledge and skill in career and life planning especially for adult considering job or career change. Emphasis on identifying skills, interests, experience, and values in relationship to new career choices and options.

400 Special Topics in Guidance, Counseling, and Student Personnel (1–5)
Prereq: perm. Independent studies, specialized projects, and seminars on following special topics: alcohol and substance abuse; biofeedback, self-control, and management of stress; marriage and family issues; assertiveness, human sexuality, and Adlerian theory, method, and research (may be repeated for max of 18 hrs).

410 Human Relations (3)
Prereq: jr. Study and practice of developing healthy and mutually satisfying interpersonal relationships. Lecture and discussion groups focus on dynamics of relationships, factors fostering effective interaction, and significance of self concepts in human communication. Topical headings include values clarification, games people play, self-disclosure and trust, conflict resolution, sexuality, prejudice, death and dying, multicultural education, sexism, constructive use of anger, etc.

420 Guidance Practices in Elementary Schools (4)
Need, scope, and nature of elementary guidance surveyed. Guidance approach is examined for their usefulness in working with children and parents. Roles of elementary school counselor and other pupil personnel specialists reviewed for their contribution to growth and development of children. Opportunity for students to achieve greater self-understanding through involvement in self-appraisal.

430 Guidance in American Secondary Schools (4)
Same as 420 but pertains to secondary schools.

440 Foundations in Group Dynamics (4)
General principles and basic techniques of group dynamics. Interaction in human relations situations that occur in agency settings, business, class-rooms, community, resident living, and various types of professional counseling, counseling in groups, and growth groups. Through both cognitive and affective learning opportunities, students learn to understand and work with group dynamics principles in areas of personal and professional interaction. Students attend weekly cognitive seminars as well as participate in ongoing group lab.

C.A.R.E. Partnership (EDCR)
101 Democracy and Education (4)
Prereq: admiss to CARE program. Coreq: 101L. An introduction to the unique role American public school systems play in democracy. Particular attention will be paid to the role of the teacher in the process, as well as to historical and sociological precedents.

101L Democracy and Education: Field Experience (2)
Prereq: admiss to CARE program. Coreq: 101. Field experiences to complement EDCR 101 Democracy and Education. Students involve several school placements at differing classroom levels to promote comparison and analysis.

201ABC Childhood in America (4)
Prereq: 101. Introduces students to children and their characteristics at various levels of development. Students are also introduced to and encouraged to examine factors that influence children’s learning in the schools, as families, neighborhoods, race, culture, gender, and socioeconomic status. Students learn about the values and belief systems of themselves and children, as well as identify elements of successful parenting.

210 Introduction to Teaching in a Democratic Classroom (4)
Prereq: 101, Coreq: 210L. The purpose of this course is to identify the characteristics of a democratic classroom and to develop student skill in the creation of a democratic learning environment. Students examine a variety of teaching methods including experiential and cooperative learning, and begin to develop competence in their use.

210L Introduction to Teaching in a Democratic Classroom Field Experience (2)
Prereq: 101, Coreq: 210. This practicum accompanies EDTE 210 and provides students with field experience in the classroom. Classroom assignments include observation, tutoring, small-group instruction, and other appropriate preservice experiences.

310 Advanced Methods for the Democratic Classroom (4)
Prereq: admission to CARE program and 210. Coreq: 310L. In-depth exploration of several different teaching methods utilized in progressive, democratic classrooms. Builds on introduction to these methods in EDTE 210 and 210L.

310L Advanced Methods for the Democratic Classroom Lab (2)
Prereq: admission to CARE program. Coreq: 310L. Field experience utilizing methods gained in EDTE 310.

325 Literature-Centered Developmental Reading Instruction (5)
Prereq: 220, grad. standing. Provides preparation for teaching of developmental reading in the middle school. The course emphasizes a literature-centered approach to the teaching of reading and emphasizes the development of proficient reading skills throughout a stage model of reading. Text and supplementary readings, lecture, demonstration, discussion, multimedia resources, observations and participation in schools, and projects for practical competence are all part of the class procedures.

371A Instructional Adaptations for Learners with Exceptionalities and Diverse Needs—Early (4)
Prereq: 200, 201, 202. Designed to develop skills needed by educators at the elementary and middle levels to work with learners with exceptionalities and diverse needs in inclusive classrooms. Content includes curriculum modifications, instructional and management adaptations, effective collaboration strategies, accommodations and support services, and skills required for instructing in and managing an inclusive classroom.

371B Instructional Adaptations for Learners with Exceptionalities and Diverse Needs—Secondary (4)
Prereq: admission to adult standing. This course and clinical field experience are designed to develop skills needed by educators at the elementary and middle levels to work with learners who have exceptionalities and diverse needs in inclusive classrooms. Content includes curriculum modifications, selection and appropriate uses of reading materials, instructional and reading adaptations, classroom management adaptations, effective collaboration strategies, accessing related and support services, and skills required for instructing in and managing an inclusive classroom.

371C Instructional Adaptations for Learners with Exceptionalities and Diverse Needs—Early (4)
Prereq: 200, 201, 202. Designed to develop skills needed by early childhood educators to work with families and learners who have exceptionalities and diverse needs in inclusive classrooms. Content includes curriculum modifications, instructional and management adaptations, effective collaboration strategies, accessing related and support services, and skills required for instructing and managing an inclusive classroom.

371D Instructional Adaptations for Learners with Exceptionalities and Diverse Needs—Secondary (4)
Prereq: admission to adult standing. Provides preparation for teaching of developmental reading in the middle school. The course emphasizes a literature-centered approach to the teaching of reading and emphasizes the development of proficient reading skills throughout a stage model of reading. Text and supplementary readings, lecture, demonstration, discussion, multimedia resources, observations and participation in schools, and projects for practical competence are all part of the class procedures.

420 Teaching Reading in the Content Area (4)
Prereq: adult standing. Materials, methods, and techniques for teaching adolescent learners of
various abilities. Emphasis on diagnosis of reading difficulties and adaptation of materials and teaching methods for content area instruction. Lab included as part of the lecture class.

421 Foundations of Reading Instruction, Diagnosis, and Remediation for Classroom Teachers (4) 
Prereq: 220, adv standing. Designed to provide classroom teachers and other instructional personnel with in-service education directed toward their identified needs. Facilitates offering of short courses, workshops, and summer institutes. Areas of concentration currently available: (A) Language Arts, (B) Social Studies, (C) Science, (D) Mathematics, (E) Reading, (F) Kindergarten, (G) Individualized Instruction, (H) Team Teaching, (I) Interaction Analysis, (J) Developing Behavioral Objectives, (K) Supervision of Instruction, (L) Interdisciplinary Topics, (M) Special Topics, (N) Special Education Topics, (O) Supervision of Instruction, (P) Education for Gifted.

492K Workshop in Curriculum and Instruction (0.5–15) 
Prereq: perm. Staff. Designed to provide practicing teachers and other instructional personnel with in-service education directed toward their identified needs. Facilitates offering of short courses, workshops, and summer institutes. Areas of concentration currently available: (A) Language Arts, (B) Social Studies, (C) Science, (D) Mathematics, (E) Reading, (F) Kindergarten, (G) Individualized Instruction, (H) Team Teaching, (I) Interaction Analysis, (J) Developing Behavioral Objectives, (K) Supervision of Instruction, (P) Education for Gifted.

492K Workshop in Curriculum and Instruction (2) 
Prereq: 101, 210, 310. An in-depth examination and synthesis of information learned in both special CARE classes and in general education classes with emphasis on how this information can be used in the classroom and integrated into the future teaching of this content area.

Education Computer Technology (EDCT) 
203 Technological Applications in Education (4) 
Prereq: Admission to Professional Education. Focuses on the use of technology to increase the effectiveness, efficiency, and appeal of instruction to diverse learners. Major emphasis is given to instructional computing for production and presentation.

Early Childhood Education (EDEC) 
206 Introduction to the Integrated Curriculum (4) 
The purpose of this course is to introduce the undergraduate students in early childhood to the integrated curriculum for young children between the ages of three and eight years. The relationship among how young children learn, what they find in their environment and the integration of their curricula is examined.

225 Emergent Reading and Literacy (4) 
Prereq: EDC 220. Emphasizes the development of reading and literacy from a global view of language, thinking, and learning. Attention is given to methods and materials with emphasis on the use of literacy within the framework of age and individual appropriateness.

306 Teaching Strategies and Transitions for Young Children (3) 
Prereq: adv standing.

319 Reading and Literature in the Early Childhood Classroom (3) 
Prereq: EDC 220. Designed for undergraduate students seeking licensure in early childhood. Focuses on the use of literacy and the role of literature in that process.

330 Teaching Young Children Mathematics (3) 
Prereq Jr. to Professional Education. Coreq: 330L. Emphasis of methods and materials appropriate for teaching mathematics to young children. Emphasis placed on using developmentally appropriate experiences to provide for diversity of learners, including those with disabilities. Designed to be taken concurrently with 330L.

330L Teaching Young Children Mathematics—Field (1) 
Coreq: 330L. Application of concepts and skills from EDC 330. Students observe and teach mathematics lessons in appropriate settings under the supervision of the course instructor. Students demonstrate proficiency in the use of mathematical models and manipulative teaching aids.

340 Teaching Science for Young Children (4) 
Prereq: adv standing in teacher education; 12 hours of science from approved list; completion of one course in each of the following science areas: Life, Physical, Earth. Coreq: EDC 340L. Emphasis on constructivist science teaching through hands-on inquiring processes. National and state standards examined and applied. Science equipment, instructional resources and technology, and safety procedures are emphasized.

340L Teaching Science for Young Children—Lab (1) 
Coreq: 340. Will apply material learned in 340 in field and/or clinical lab setting.

350 Teaching Social Studies in Early Childhood (3) 
Prereq: Early Childhood major, adv standing. Coreq: 350L. The foundation of social studies is to help students gain new understandings of the world through discourse and activities which emphasize applications to authentic issues and problems that affect society. Problem solving, critical thinking, analysis, negotiation and collaboration are part of the teaching of social studies.

350L Teaching Social Studies in Early Childhood—Field (1) 
Prereq: Early Childhood major, adv standing. Coreq: 350L. Field experience in classrooms for three year olds through third grade. Will apply the theory and application learned in 350 throughout the quarter.

421 Observing Young Children for Reading Strategies and Skills (2) 
Prereq: 225, EDC 220. Coreq: 421L. Learn to observe children, keep running records and conduct an informal reading inventory. Appropriate instruction is based on these assessment procedures. Learn to record results for reporting to parents and other appropriate adults.

421L Observing Young Children for Reading Strategies and Skills—Lab (2) 
Coreq: 421L. Lab experience accompanying 421.

Educational Administration (EDAD) 
452 Problem Solving in Administration of Education (1–4) 
Prereq: perm. Variable topic course for independent study, institutes, and workshops.

Educational Media (EDM) 
201 Use of Library Resources I (3) 
Designed to acquaint students with resources available in academic library. Students learn to analyze information needs and to develop systematic approach toward solution.

297T Media Tutorial (1–15) 
Prereq: Honors Tutorial College and perm.

International and Comparative Education (EDIC) 
205 Learning from Non-Western Cultures (4) 
Prereq: soph or perm. Exploration of alternative "ways of seeing" and "ways of knowing," in cultures of the non-Western world (i.e., Africa, Asia, Latin America). Building skills in personal investigations of life and learning in diverse cultures.

420 Comparative Cultures and Education (4) 
Prereq: perm. Emphasis on distinctive cultural, economic, and political forces such as patterns, problems, and roles of education in some selected developed and developing nations. These include U.S., some European countries, and at least one African and/or Asian nation where former or present Western culture has impact. Assessment of this impact especially on educational developments.

425A Education and Development in Africa (4) 

425B Education and Development in Asia (4) 
Prereq: perm. Same emphasis as 425A on tradition and change in society, culture, and education, and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

425C Education and Development in Latin America (4) 
Prereq: perm. Same emphasis as 425A-425B on tradition and change in society, culture, and education, and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

450 Teaching Strategies for Cultural and International Understanding (4) 
Prereq: sr. perm. Psychological and sociological foundations of cultural values and ways of life investigated. Strategies for developing cross-cultural understanding and cooperation studied. Emphasis on innovative approaches to learning for elementary and secondary school pupils.

Middle Childhood Education (EDMC) 
300 Middle Childhood Instructional Process and Curriculum (4) 
Prereq: admission to adv standing. Further understanding of the middle child and the middle school. Lecture, activities, and field experiences revolve around developmentally appropriate teaching, context based assessment, supportive learning theory and application, and structure of the middle school.
301 Middle Childhood Education and Curriculum (5)
Prereq: 300. Specifically designed for middle childhood pre-service teachers with a focus on social foundations of teaching and learning, with emphasis on middle childhood curriculum, middle school organization, and structure.

310 Teaching Language Arts in the Middle Childhood Grades (4)
Prereq: 300 or 301. Provides basic information in language development, oral and written language, and language mechanics. Provides strategies for teaching the language modes through an integrated approach. Stresses assessment in authentic settings.

310L Teaching Language Arts in the Middle Childhood grades (lab 1)
Coreq: EDMC 310. Lab experience accompanying 310.

321 Children’s Literature for Middle Childhood (4)
Prereq: admission to adv standing. This course treats the body of literature by genre, appropriate for children from eight to fourteen years. It includes various techniques for utilizing children’s literature in school settings.

330 Teaching Mathematics in Middle Childhood Grades (4)
Prereq: 300 or 301, admission to adv standing. Coreq: 300L. Familiarizes preservice educators with the mathematics curriculum of grades 4–9 and with instructional techniques appropriate for the delivery of the curriculum. The course provides a solid foundation in teaching and learning applied to mathematics, complemented by rich experiences in working with students in actual school settings. Designed to extend preservice teachers’ understanding of mathematical content and methodology so that mathematics instruction is seen in terms of active students making appropriate use of technology in learning math as a relevant and coherent body of knowledge, which relates to diverse cultures. The course is designed to be taken concurrently with middle childhood lab course.

330L Teaching Mathematics in Middle Childhood Grades–Field (1)
Coreq: 330. Application of concepts and skills from 330. Observe and teach mathematics lessons in appropriate settings under the supervision of the course instructor. Demonstration of proficiency in the use of mathematical models and manipulative teaching aids.

340 Teaching Middle-Level Science (4)
Prereq: 300 or 301, 22 hrs in science. Coreq: 340L. Emphasis on concepts and inquiry processes for middle childhood children as recommended by state and national standards. Topics include scientific literacy; applied constructivist learning theories; multicultural, gender, and exceptional learner equity practices; authentic assessment of the middle-level learner; safety and classroom management; use of curriculum supplements and multimedia resources; effective questioning skills; and selection of appropriate uses of texts and demonstration.

340L Teaching Middle-Level Science–Lab (1)

350 Teaching Social Studies in Middle Childhood Grades (4)
Prereq: 300 or 301. Coreq: 350L. The foundation of social studies is to help students develop new understandings of the new world through discourse activities that emphasize applications to authentic issues of human society. Problem solving, critical thinking and analysis, negotiation and collaboration are part of the teaching of social studies content. Using national and state standards, course emphasizes integrated social studies curriculum in grades 4-9.

350L Teaching Social Studies in Middle Childhood Grades–Lab (1)
Coreq: 300 or 301. Coreq 350. Field experience in 4th-9th grade classrooms will apply the theory and applications learned in 350 throughout the quarter.

490 Independent Study (1-5)
Prereq: adm to EDMS Program. Jr. Independent study provides the student an opportunity to focus on some special interest, concern, problem, research, and/or advanced study in a particular field under staff guidance. Suggested readings and other resources depend upon need and interest of the individual; frequent conferences; preparation of final report.

Professional Laboratory Experience (EDPL)

360 Field Experience in Elementary or Secondary Schools (2)
Prereq: Jr. perm. Observation and participation in elementary and secondary schools. Prior approval must be made from Field Experience Office in May for those planning experiences in August-September period and in November for those planning participation in December. May be repeated.

361 Field Service in Education (2)
Prereq: soph. Participation in community agencies, summer camps, recreation programs, Head Start, and various school-related programs. Arrangements must be made in Field Experiences Office prior to participation.

458 Student Teaching in Early Childhood (7)
Assigned responsibility for teaching under supervision of master teacher in classroom in preschool through third grade for one quarter, full-time. Concurrent registration for EDPL 458, 455, and 456 is required of all early childhood education majors for full-time student teaching experience.

459 Student Teaching in Early Childhood (6)
Continuation of EDPL 458. See 458 for description.

460 Observation and Participation in Elementary or Secondary Schools (3)
Prereq: perm. Extensive participation in school program extending over period of one quarter, designed primarily for students with some classroom teaching experience, especially students from other countries.

461 Student Teaching in Middle Childhood (7)
Prereq: perm. Assigned responsibility for teaching under supervision of master teacher in classroom in 4–9 range for 1 qt, full-time. Concurrent registration in 461, 462, and 463 is required of all middle childhood education and intervention specialist majors. Concurrent registration in 461, 463, and 465 is required of majors in arts, music, and physical education.

462 Student Teaching in Middle Childhood (6)
Prereq: 461. Continuation of 461. See 461 for description.

463 Student Teaching in Secondary Schools (6)

464 Student Teaching in Secondary Schools (7)
Prereq: 463. Continuation of 463. See 463 for description.

465 Student Teaching Seminar (3)
Analysis and interpretation of student teaching experience. Problem-centered discussion of major areas of concern directly related to classroom teaching. Structured discussion of unit and lesson planning, evaluation, classroom management, pupil adjustment, effects of recent legislation upon classroom teacher, position procurement, professional ethics, and professional organizations. Concurrent enrollment with a 13 quarter hours credit in student teaching required.

466 Student Teaching for Advanced Students (6–9, max 9)
Prereq: perm. Supervised observation, participation, and limited teaching, open only to elementary education degree candidates and selected secondary education and special education with a minimum of three years of prior teaching experience.

Secondary Education (EDSE)

297T Secondary Education Tutorial (1–15)
Prereq: Honors Tutorial College and perm.

298T Secondary Education Tutorial (1–15)
Prereq: Honors Tutorial College and perm.

299T Secondary Education Tutorial (1–15)
Prereq: Honors Tutorial College and perm.

350 Secondary School Planning and Instruction (3)
Prereq: adv. standing. Designed to enable preservice educators to design, implement, evaluate, and reflect upon the processes of secondary school teaching and learning. Course focuses on systematic planning, methods of direct instruction, and effective class interaction. Course is specifically designed around the four domains of Praxis III with particular focus placed on authentic teaching and learning in content area classes. Course is designed to be taken concurrently with field experience in schools.

351 Secondary School Teaching and Learning (5)
Prereq: EDSE 350 and 351. Extends upon the content of EDSE 350 and EDSE 371B, this course further develops student's personal and professional belief of teaching, learning, and, explores secondary school curriculum development and issues and challenges facing secondary educators. The course helps preservice teachers build a repertory of teaching and assessment strategies by applying multiple methods of instruction, content differentiation, and constructivism through hands-on activities; furthers their knowledge of classroom management strategies and communication with students and parents; provides them with skills and knowledge to teach content literacy; and helps them identify critical legal issues concerning students and teachers. Praxis III domains are addressed in student-developed learning lessons. Particular emphasis is given to domain C (teaching for student learning) and domain D (professionalism). Topics covered address all aspects of a teacher's first year experience and lifelong learning through a professional development portfolio.

297T Secondary Education Tutorial (1–15)
Prereq: Honors Tutorial College and perm; 297T and 299T.

298T Secondary Education Tutorial (1–15)
Prereq: Honors Tutorial College and perm; 297T and 299T.

299T Secondary Education Tutorial (1–15)
Prereq: Honors Tutorial College and perm; 297T and 299T.

440 Secondary School Science Methods (4)
Prereq: 351; jr. perm. Coreq: 440L. Study of curriculum and teaching goals; preparation of inquiry-based lessons; uses of technology in science instruction; science safety, studied and practiced. Written and verbal evaluation of teaching. Critiques of instructional resources; creation of a science teacher professional development plan.

440L Secondary School Science Teaching Lab (2)
Prereq: 351; jr. perm. Coreq: 440L. This practicum experience in approved school settings enables University students to teach science school students, building from small group extended teaching of entire classes. College students also may participate in science fairs, contests, and olympiads.

479 Teaching of the Social Studies in Junior and Senior High Schools (4)
Prereq: 350, 351, 371B, 479, and approved for student teaching. Nature, development, purpose, and value of social studies; focus on methods and techniques of instruction. Curriculum development, unit planning, materials of instruction, and evaluation.

490 Studies in Secondary Education (1-5, max 15)
Prereq: perm of dept chair. Honors students or
students seeking honors in secondary education may register for this course.

497T Secondary Education Tutorial (1-15)
Prereq: Honors Tutorial College and perm; 397T.

498T Secondary Education Tutorial (1-15)
Prereq: Honors Tutorial College and perm; 398T.

499T Secondary Education Tutorial (1-15)
Prereq: Honors Tutorial College and perm; 397T and 398T.

Special Education (EDSP)

260 Field Experience in Special Education
(Block II) (4)
Prereq: Block I and adv standing. Serve 80 hours as a special education teacher’s assistant; follow the teacher’s directions and instructional plans for working with pupils until given the responsibility to develop your own plans which may be appropriate near the end of the quarter.

271 Introduction to Education of Exceptional Children and Youth (4)
Comprehensive survey of special education programs emphasizing multidisciplinary approach, integration, and current trends in providing instruction to persons with exceptionalities, and legal rights and responsibilities for general and special education persons. Definitions; culturally sensitive identification and assessment procedures; occupational-interventions, instructional strategies including age appropriate, functional, and community reference skills; use of positive behavioral supports, educational, adaptive equipment, assistive devices, and instructional materials to promote self-determination. Methods are applied through case-based instruction, hands-on participation, and cooperative teaching.

477 Consultation and Collaboration in Special Education (4)
Prereq: Block III and adv standing. Comprehensive overview and development of professional competencies related to collaboration and consultation in special education. Content includes the consultation process, role and responsibilities of professionals and parents, working in teams, legal and ethical issues, interagency and interdisciplinary collaboration, and collaborating with families of students with special needs.

485 Diagnosis and Evaluation of Children with Disabilities (4)
Prereq: Block II. Covers the traditional and non-traditional methods of assessing mild and moderate disabilities and classification, collection and appropriate application. Prerequisites include: clinical data utilizing laboratory and field experiences.

490 Study of Special Education (1-5, max 15)
Prereq: Perm of area coordinator. Independent analysis, special interests, concerns with assigned and suggested readings, programmed experiences, and preparation of final report, with guidance of faculty member.

Electronic Media (EM)

209 Topics in Radio-Television Engineering (3, max 18)
Intensive study of all functions of electronics as they relate to topics in field. Prepares students who complete all topics to take FCC General Class and/or SBE exams required for broadcast engineering positions. Lab time included with instruction on operation of test equipment and facilities maintenance.

211 Audio Production-Direction (4)
Prereq: EM101 Using software applications on both the Mac and PC to create audio for desktop publishing, interactive presentations, television/video, and Web site content.

Courses / Electronic Media 257
214 Advanced Audio Production/Performance (2, max 4)
Prereq: 211. (fall, spring) Innovative techniques for production and performance of audio materials. Investigation and analysis of audio production development, and individual problems.

215 Intro to Website Design (4)
Prereq: EM 212. Website creation and Internet publishing, using HTML, integrating into Webpages, posting pages to the Web, and server functions.

216 Introduction to Video Production (4)
Prereq: Principles of basic television production and development of criteria for evaluation of television production. 2 lec, 4 lab.

217 Advanced Video Production (2, max 4)
Prereq: 216. (winter, spring) Applications of studio and field production with emphasis on innovative techniques.

218 Intro to Digital Media (4)
Prereq: ART 113, EM 212. Photography and video basics through development and integration into current digital media applications.

257 Advertising in the Broadcast and Cable Media (4)
(winter) Introduction to principles and practices of advertising and selling of time in electronic media situations. Format includes substantial instruction and interaction with individuals employed in station sales departments, and preparation of materials for sales strategies and campaigns.

267 International Media Systems (4)
Surveys the role of the media in representative foreign countries. Media are examined relative to their structure, function, patterns of use, regulation and control, and relationships to other systems. Culture, politics, history, economics, geography, educational levels, and other aspects of the countries will be discussed.

288 Electronic Media Workshop-Multimedia
Prereq: 219 Production of multimedia related assignments, monitored and supervised by Electronic Media Faculty. Requires minimum number of assigned tasks per week during the term.

289 Broadcast Workshop (1, max 6)
Prereq: EM major. (fall, winter, spring) Production of technically related assignments monitored and supervised within broadcast related services of ODU-Zune. Requires minimum number of assigned hours of tasks per week during school terms.

290 Radio-Television Internship (1)
Prereq: EM major. Approved assignments in area of radio, TV, cable, or media production facilities. Requires contract of duties and time commitment between coordinator, student, and employee. Written evaluation required for course completion.

298 Independent Study (1–4, max 4)
Prereq: EM major, written proposal, and perm. Research projects requiring self-directed study and completion of paper or production relating to electronic media. (May be repeated up to 4 qtrs.)

Engineering, Chemical (CHE)

100 Introduction to Chemical Engineering (2)
(fall) Overview of the profession’s history, present status, and opportunities. Goals and details of the curriculum. 2 lec.

101 Approaches to Chemical Engineering Problem Solving (3)
Prereq: MATH 263A, (spring) Introduction to goals and methods of problem-solving techniques; uses of computers for calculations, document preparation. Implementation of selected professional software. 2 lec, 2 rec.

200 Material Balances (4)
Prereq: 101. (winter, summer) Applications of chemistry, physics, and mathematics to the solution of mass balances. Single and multiple unit systems. Reactions, recycle, and bypass. Single and multistep systems. 3 lec, 2 rec.

201 Energy Balances (4)

231 Principles of Engineering Materials (4) (2A)
Prereq: CHEM 121 or 151. (fall, winter, spring, summer) Fundamentals principles underlying behavior of engineering materials. Relationship between structure and properties of ceramic, metallic, and polymeric materials. 4 lec.

305 Chemical Engineering Thermodynamics (4)
Prereq: 201, C or better. (fall) Application of thermodynamics to chemical engineering problems, including problems in chemical equilibrium in homogeneous and heterogeneous systems, mixtures, and pure materials. 3 lec, 2 rec.

306 Chemical Engineering Phase Theory (4)
Prereq: 305. (winter) Continuation of 305. See 305 for description. 3 lec, 2 rec.

307 Chemical Reaction Engineering I (3)
Prereq: 306, 400. (spring) Application of chemical kinetics and reactor design to the development of design criteria for chemical reaction systems. 2 lec, 2 rec.

308 Chemical Reaction Engineering II (4)

345 Chemical Engineering Fluid Mechanics (4)
Prereq: 201, C or better, MATH 340. (fall) Fundamental principles of fluid flow. Transportation and metering of fluids. Laminar and turbulent flow of fluids in conduits and past immersed bodies. 4 lec, 2 rec.

346 Chemical Engineering Heat Transfer (4)

347 Mass Transfer and Separations (5)
Prereq: 306, 346. (spring) Fundamental principles of mass transfer. Diffusivities, mass transfer coefficients, staging, and continuous-contact unit operations. Absorption, distillation, and extraction. 4 lec, 2 rec.

400 Applied Chemical Engineering Calculations (4)
Prereq: 201, C or better, MATH 340. (fall) Application of analytical mathematics and numerical methods to mathematical problems and solution of chemical engineering problems. 3 lec.

402 Engineering Experimental Design (3)
Prereq: 305, 345, 400. (spring) Application of engineering analytics and statistics to the design of experiments with particular emphasis on continuous processes as typically encountered in the chemical and materials areas. 2 lec, 2 rec.

415 Unit Operations Laboratory I (3)
Prereq: 307, 346, 400. (fall) Lab practice to illustrate principles of selected unit operations, thermodynamics, and applied kinetics; and to aid student in gaining confidence in handling of chemical engineering equipment. Development of ability to devise and conduct chemical engineering experiments with minimum supervision and to report results satisfactorily will be stressed.

416 Unit Operations Laboratory II (3)
Prereq: 308, 347, 408. (winter) Continuation of 415. See 415 for description.

477 Introduction to Polymer Synthesis (3)
Prereq: 306 or CHEM 454. Polymer structure, reaction mechanisms, kinetics, reactors, processing, and properties. 3 lec.