Latin courses required for a teaching minor in secondary school Latin. 2 hrs. lecture; 2 hrs. lab. field experience in multicultural settings.

3416 Materials and Methods in Secondary School Mathematics (3) Prereq.: ED 2040 and credit or for registration in 25 of the 26 sem. hrs. of Spanish courses required for a teaching minor in secondary school Spanish. 2 hrs. lecture; 2 hrs. lab. field experience in multicultural settings.

3417 Materials and Methods in Secondary School Science (3) Prereq.: EDCI 2040 and credit or for registration in 25 of the 26 sem. hrs. of Spanish courses required for a teaching minor in secondary school Spanish. 2 hrs. lecture; 2 hrs. lab. field experience in multicultural settings.

3418 Materials and Methods in Secondary School Speech (3) Prereq.: EDCI 2040 and credit or for registration in 25 of the 26 sem. hrs. of Spanish courses required for a teaching minor in secondary school Spanish. 2 hrs. lecture; 2 hrs. lab. field experience in multicultural settings.

3419 Materials and Methods in Secondary School Spanish (3) Prereq.: EDCI 2040 and credit or for registration in 25 of the 26 sem. hrs. of Spanish courses required for a teaching minor in secondary school Spanish. 2 hrs. lecture; 2 hrs. lab. field experience in multicultural settings.

3480 Reading, Writing, and Oral Communication in the Elementary School (6) Prereq.: EDCI 2040, 3000 and concurrent enrollment in EDCI 3127, 3137, and 4460. 3 hrs. lecture; 6 hrs. lab. field experience in multicultural, multi-level settings. Principles and practices of an effective approach to reading, writing, and the oral language arts in grades 1-5.

3223 Adolescent Literature (3) See ENGL 3233.

3400 Educational Principles, Policies, and Practices for Special Populations (3) Prereq.: cohort membership or consent of instructor. 2 hrs. lecture; 2 hrs. lab. field experience in multicultural settings. Current research, assessment, and instruction in the mainstream classroom for diverse students, such as different racial/ethnic groups.

3481 Curriculum and Pedagogy in Secondary Disciplines (3) Prereq.: EDCI 3702 and concurrent enrollment in EDCI 3002 and 3003. 2 hrs. lecture; 2 hrs. lab. Development of curriculum proposals for middle and high school students with mild to moderate learning and behavior problems; overview of various methods and introductory models for assessment.

3701 Assessment for Special Instructional Educational Practice (3) Prereq.: EDCI 2700 and admission to a Teacher Education Program. 2 hrs. lecture; 2 hrs. lab. Field experience. Requires practical field experience with student(s) with disabilities in a school environment. Does not satisfy the credit requirements for Certification in Exceptional Diagnosis. Assessing performance of students with disabilities; interpreting standardized test results; designing and using assessment in the classroom; instructional design based on assessment data.

3702 Instructional Practice for Students with Disabilities I (3) Prereq.: EDCI 3701. 2 hrs. lecture; 2 hrs. lab. Instructional methods, procedures, and materials for teaching students with mild to moderate learning and behavior problems; overview of various methods and introductory models for assessment; instructional design.

3703 Instructional Practice for Students with Disabilities II (3) Prereq.: EDCI 3702. 2 hrs. lecture; 2 hrs. lab. Application of foundational knowledge in secondary programs for students with mild to moderate disabilities; focus on the design, delivery, and evaluation of transition services to post-school environments.

4003 Curriculum and Pedagogy in Secondary Disciplines (3) Prereq.: EDCI 3002 and concurrent enrollment in one of the following: BIOL 4003, CHEM 4003, ENGL 4203, FREN 4403, MATH 4003, PHYS 4004, SPAN 4004, or PSYH 4003. In the second subject area, 2 hrs. lecture, 3 hrs. lab. field experience in multicultural settings. Credit will not be given for both this course and EDCI 4465. Applying instructional approaches in particular subject areas for middle and high school students. Critical issues in Secondary School Content Area Teaching (3) Prereq.: EDCI 4003 or permission of instructor. May be repeated for credit in a second subject area. 2 hrs. lecture, 3 hrs. lab. field experience in multicultural settings. Credit will not be given for both this course and EDCI 4466. Critical issues in the nature of knowledge and models in specific school subjects.

4005 Student Teaching in Grades 6-12 (9) Prereq.: EDCI 4003 and concurrent enrollment in EDCI 4004 and in one of the following: BIOL 4004, CHEM 4004, ENGL 4204, HIST 4404, MATH 4004, PHYS 4004, SPAN 4004. 1 hr. lecture; 24 hrs. lab.(floor experience in diverse multicultural settings. A full day, all semester student teaching experiences, including observation, participation, and a minimum of 180 actual clock hours of teaching (with a substantial portion of the 180 hrs. in a full day teaching) under the supervision of an assigned public school mentor teacher.

4006 Student Teaching in Grades 6-12 Mathematics and Sciences (9) Prereq.: EDCI 4500. 1 hr. lecture; 24 hrs. lab. field experience in diverse multicultural settings. All day, all semester student teaching experiences, including observation, participation, and a minimum of 180 actual clock hours of teaching (with a substantial portion of the 180 hrs. in a full day teaching) under the supervision of an assigned public school mentor teacher.


3550 Classroom Interactions (3) Prereq.: Biol/Chem/Math/Physics 2010 (or concurrent enrollment) and EDCI 2040. 3 hrs. lab. field experience in multicultural settings. Classroom interactions in secondary mathematics and science education understood as a process of concept development. This course emphasizes learners' knowledge and understanding of the classroom interactions in classroom events that impact learning in mathematics and science and critical issues of student equity.

3625 Student Teaching in Elementary Grades (12) Prereq.: See ‘Requirements for Student Teaching.’ 2 hrs. lecture; 30 hrs. lab. Pass-fail grading.


3646 Assessment and Planning for Reflective Instruction (3) Prereq.: EDCI 3700. 2 hrs. lecture; 2 hrs. lab. Application of foundational knowledge in secondary programs for students with mild to moderate disabilities; focus on the design, delivery, and evaluation of transition services to post-school environments.

3647 Assessment and Planning for Reflective Instruction (3) Prereq.: EDCI 3700. 2 hrs. lecture; 2 hrs. lab. Application of foundational knowledge in secondary programs for students with mild to moderate disabilities; focus on the design, delivery, and evaluation of transition services to post-school environments.

3855 Language Acquisition and Development of Communication Skills in the Young Child (3) Prereq.: EDCI 3112 or equivalent. Analysis of stages of native language acquisition and development of communication skills in children from birth to six years.

4241 Special Studies in Art Education (3) Research in an area related to the teaching of art.

4269, 4270 Art Education Workshop (3,3) Art as an integral part of the school curriculum; art activities and classroom procedures, materials, and techniques.

4272 Current Practices in Art Education (3) Contemporary trends and practices in art education; critical review of 125 texts, journals, and other information sources.

4273, 4274 Art Education in the Elementary and Secondary Schools (3,3) For students concentrating in art education. Development of a functional art program for the elementary and secondary level, with an emphasis on the role of art education, curriculum, curriculum construction, teaching methods, planning, and measurement of the results of instruction.

4400 Principles and Practices in Secondary Education (3) Prereq.: cohort membership or consent of instructor. Analysis of criticisms of secondary education and of current thinking for reform; content related to teaching, learning, cognition and related approaches to curriculum, instruction, and evaluation; current theoretical and research approaches; implications for educational policy and practice.

4455 Principles and Practices in K-12 Education (3) Prereq.: cohort membership or consent of instructor. Analysis of criticisms of K-12 education and of current proposals for reform; conflicting conceptions of teaching, learning, cognition and related approaches to curriculum, instruction, and evaluation; current theoretical and research approaches; implications for educational policy and practice.

4460 Planning, Managing, and Evaluating School Instruction (3) Prereq.: EDCI 2400, 3000 and concurrent enrollment in EDCI 3127, 3137, and 3200. 2 hrs. lecture; 2 hrs. lab. Exploration and observation of skills and techniques for organizing and assessing learning in schools.

4465 Seminar: Reflective Teaching in Secondary Subjects (3) Prereq.: cohort membership or consent of instructor. May be taken for a maximum of 6 sem. hrs. when topics vary. Credit will not be given for both this course and EDCI 4466. Critical issues in the nature of knowledge and models in specific school subjects.

4466 Seminar: Critical Issues in Secondary School Teaching (3) May be taken for a maximum of 6 sem. hrs. when topics vary. Credit will not be given for both this course and EDCI 4466. Critical issues in the nature of knowledge and inquiry in school subjects: English, mathematics, science, and the arts.

4470 Reflective Practice in Foreign Language Education: K-12 (3) Prereq.: cohort membership or consent of instructor. Critical issues in foreign language learning; lesson plans for different approaches and methodologies; analysis of textbooks and materials for elementary and secondary schools.

4472 Teaching for Communication: K-12 (3) Methods and techniques conducive to language proficiency; development of listening, reading, speaking, writing skills; integration of literary and social studies in a content area; research findings applied to the solution of instructional problems in multi-level, multicultural classrooms. Designed to partially fulfill student teaching requirements and to prepare student to be effective classroom teachers in grades K-12.

4482 Capstone Seminar in Early Childhood Education (3) Prereq.: EDCI 4381 and 4382; concurrent enrollment in EDCI 4462. 4 hrs. lecture; 24 hrs. lab. field experience in multicultural settings. Critical issues in contexts of learning; conducting action research; communicating teaching experience;

4500 Principles and Models for Mathematics and Science (3) Prereq.: Classroom Interactions (EDCI 3550) or concurrent enrollment. Applying instructional approaches in mathematics and science for middle and high school students. Includes supervised field experiences in the classroom.
multicultural settings and/or informal learning environments.
4606 Materials and Methods for Teaching Computer Science Prereq.: 6 hrs. in computer science or equivalent. 3 hrs. lecture plus field experience. Materials and methods for planning instruction in computer science.
4630 Educational Leadership (12) 1200 Pre: See "Requirements for Student Teaching." 1 hr. lecture; 35 hrs. lab. Pass-fail grading. Student teaching practicum in diverse, multicultural settings; full supervision. Courses in this sequence may be repeated for credit and/or for different teaching experiences, with approval of instructor and/or curriculum director.
4635 Internship in Curriculum and Instruction (3-12) Prereq.: permission of the College of Education Office of Field Experience. Pass/fail grading. Specific teaching or practicum experience in a public school setting; periodic evening seminars.
4701 Issues in Educating Learners with Exceptionalities (3) Su Prereq. EDCI 4700 or equivalent. Skills for behavior management of children in public school programs; theoretical and historical foundations; practical application of techniques.
4704 Contingency Management with Exceptional Children (3) Prereq.: EDCI 4700 or equivalent. Skills for behavior management of children in public school programs; theoretical and historical foundations; practical application of techniques.
4705 Learning and Behavior Principles Applied to Students with Exceptionalities (3) F S Prereq.: EDCI 2700 and 2701. Professional responsibilities and practices in building cooperative and inclusive environments for education; emphasis on consulting teacher, collaborative consultation, and building effective communications among educators, parents, and other professionals in providing education and other services to children with exceptionalities.
4749 Student Teaching in Special Education: Mild/Moderate Disabilities (9) S Prereq.: credit or registration in EDCI 4705. 1 hr. seminar; 30 hrs. lab. Pass-fail grading. Laboratory teaching experience to accompany the minor in special education.
4900 Special Topics in Curriculum and Instruction (1-3) Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit. Methods, trends, and issues in curriculum and instruction.
5880 Special Topics in Education (1-3) Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit. New methods, trends, and techniques.
7002 Trends and Issues in Mental Retardation (3) An in-depth examination of issues and trends in mental retardation, including diagnosis, etiology, current theory, and delivery systems.
7003 Trends and Issues in Learning Disabilities (3) F-E An in-depth study of the meaning and concepts associated with the field of learning disabilities and the divergent characteristics and needs of students with language, academic, and cognitive impairments.
7008 Trends and Issues in Emotional and Behavioral Disturbances (F-E) An in-depth examination of issues and trends in emotional and behavioral disturbance including diagnosis, etiology, current theory, and delivery systems.
7009 Advanced Evaluation and Assessment for Students at-Risk (3) F Prereq.: EDCI 5701 or equivalent. Requires practical field experience with students with disabilities in a school environment. Identification and diagnosis of learning and behavior problems; IDEA and Section 504 legal requirements; administration and interpretation of individually administered standardized tests, design of classroom-based assessments and methods of comparative analysis; instructional and service recommendations based on multiple assessments.
7100 Advocacy and Evaluation in Practice (3) S Prereq.: EDCI 7009. Supervised experience in educational evaluation and assessment; practical and in-depth approach to the process of evaluating the needs of a specific student or group, including consideration of various data collection systems.
7111 Administration and Supervision in Special Education Prereq.: EDCI 4700 or equivalent. 3 hrs. in computer science or equivalent. 3 hrs. lecture plus field experience. Materials and methods for planning instruction in computer science. 4630 Educational Leadership (12) 1200 Pre: See "Requirements for Student Teaching." 1 hr. lecture; 35 hrs. lab. Pass-fail grading. Student teaching practicum in diverse, multicultural settings; full supervision. Courses in this sequence may be repeated for credit and/or for different teaching experiences, with approval of instructor and/or curriculum director.
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DAIRY SCIENCE • DAIRY

1048 Elements of Dairyming (3) F,S Fundamentals of dairy production and manufacturing.

2040 Techniques of Judging and Evaluating Dairy Cattle (1) F Development of evaluative tech-

iques in a clinical setting; emphasis on visual evaluation, decision making, and oral communication.

2041 Dairy Cattle Production Practices (3) S Preq.: DARY 1048. 2 hrs. lecture; 2 hrs. lab. Dairy cattle produc-
tion practices; care, fitting, showing dairy cattle.

2042 Introductory Agricultural Genetics (3) S Preq.: BIOL 1002 or equivalent. Introduction to classical and modern genetic methodology used in agriculture including Mendelian principles, statistical techniques, assisted reproductive technology, genetic engineering and other biotechnological methods.

2057 Milk and Dairy Foods (3) F Product processing techniques and related principles involved in market preparation of milk and dairy foods; emphasis on consumer and processor viewpoints related to product composition, processing, marketing, sanitation, and related environmental aspects.

2093 Dairy Products Judging (2) S Development of sensory evaluation techniques in a clinical setting; emphasis on sensory evaluation, decision making, oral communication.

3010 Applied Animal Feed Formulation (3) S Preq.: ANSC 2411 and DARY 1045 or PLSC 1049 and MATH 1021 or equivalent. Formulation of feed for agricultural animals, including feed laws, feed stuffs, and requirements.

3011 Dairy Science for Beginning Doctoral Students (3) F,S Preq.: consent of department head. May be taken for a max. of 6 hrs. credit. Topics from dairy production or dairy food manu-

3050 Dairy Science Internship (3) S Preq.: junior standing with an overall gpa of 2.20 and consent of de-

3055 Dairy Science Internship (3) S Preq.: BIOL 2051, 3 hrs. lecture; 2 hrs. lab. Also offered as ANSC 4040, DFSC 4040, and PLSC 4040. Laboratory field experience in the manufacture of ice cream and other frozen dairy products; concentrated milk products; cheese and fermented milk products.

4040 Quality Assurance in the Food Industry (4) S-E Preq.: BIOL 2051, 3 hrs. lecture; 2 hrs. lab. Also offered as ANSC 4040, DFSC 4040, and PLSC 4040. Laboratory field experience in the manufacture of ice cream and other frozen dairy products; concentrated milk products; cheese and fermented milk products.

4040 Quality Assurance in the Food Industry (4) S-E Preq.: BIOL 2051, 3 hrs. lecture; 2 hrs. lab. Also offered as ANSC 4040, DFSC 4040, and PLSC 4040. Laboratory field experience in the manufacture of ice cream and other frozen dairy products; concentrated milk products; cheese and fermented milk products.

4040 Quality Assurance in the Food Industry (4) S-E Preq.: BIOL 2051, 3 hrs. lecture; 2 hrs. lab. Also offered as ANSC 4040, DFSC 4040, and PLSC 4040. Laboratory field experience in the manufacture of ice cream and other frozen dairy products; concentrated milk products; cheese and fermented milk products.

4040 Quality Assurance in the Food Industry (4) S-E Preq.: BIOL 2051, 3 hrs. lecture; 2 hrs. lab. Also offered as ANSC 4040, DFSC 4040, and PLSC 4040. Laboratory field experience in the manufacture of ice cream and other frozen dairy products; concentrated milk products; cheese and fermented milk products.

4040 Quality Assurance in the Food Industry (4) S-E Preq.: BIOL 2051, 3 hrs. lecture; 2 hrs. lab. Also offered as ANSC 4040, DFSC 4040, and PLSC 4040. Laboratory field experience in the manufacture of ice cream and other frozen dairy products; concentrated milk products; cheese and fermented milk products.