# **TEACHER EDUCATION**

### 311 Growing Up and Coming of Age in Three TE Societies (D)

Fall of odd years. 3(3-0) RB: One IAH course, one ISS course, completion of Tier I writing requirement. R: Not open to freshmen and sophomores. SA: TCC 305

Diverse disciplinary and cultural perspectives of childhood and youth. Continuity and change in families and schools. Factors such as ethnicity, race, gender, and political philosophies. Focus on three contrasting societies.

# **Department of Teacher Education** College of Education

# Seminar in Integrated Science for Elementary Schools

1(1-1) Interdepartmental Science and Mathematics Education. Administered by Science and Mathematics Education. P:M: BS 110 or BS 111 or CEM 141 or PHY 231 or PSL 250 or GLG 201 or GEO 203 R: Open only to students in the Integrated Science Teaching major, the Special Education major, the Child Development major, the Elementary Teacher Education program, the 5th-year teacher certification program, or approval of college.

Exploration of major connecting themes in life sciences, earth science, and physical science as evidenced in the K-8 science curriculum and college science courses.

#### 150 Reflections on Learning

Fall, Spring, Summer. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Teacher Education.

Students' experiences as learners in comparison to psychological, sociological, and anthropological theories and assumptions about learning and teaching in and out of school.

### 250 Human Diversity, Power, and Opportunity in Social Institutions

Fall, Spring, Summer. 3(3-0)

Comparative study of schools and other social institutions. Social construction and maintenance of diversity and inequality. Political, social and economic consequences for individuals and groups.

### 301 Learners and Learning in Context -Elementary (W)

Fall, Spring, Summer. 4(3-4) P:M: ((TE 150) and completion of Tier I writing requirement) and (TE 250 or CEP 240) R: Not open to freshmen or sophomores. Open only to students admitted to the elementary teacher certification program.

Role of social context and sociocultural background in learning at the elementary level (K-8). Natural and socially constructed differences among learners. Relationship among subject-specific knowledge, teaching and learning that subject, and the institutional and communal context. Multiple literacies.

### Learners and Learning in Contexts -302 Secondary (W)

Fall, Spring, Summer. 4(3-4) P:M: TE 150 and ((TE 250 or CEP 240) and completion of Tier I writing requirement) R: Not open to freshmen or sophomores. Open only to students admitted to the secondary teacher certification program.

Role of social context and sociocultural background in learning at the secondary level (7-12). Natural and socially constructed differences among learners. Relationship among subject-specific knowledge, teaching and learning that subject, and the institutional and communal context. Multiple literacies.

### 320 Integrated Science for Elementary Schools

3(2-2) Interdepartmental with Spring. Science and Mathematics Education. Administered by Science and Mathematics Education. P:M: SME 120 and (BS 110 or LBS 144 or LBS 148 or BS 111 or LBS 145 or LBS 149 or PSL 250 or ZOL 355) and (PHY 231 or PHY 231B or CEM 141 or LBS 171) and (GLG 201 or GEO 203 or AST 207) R: Open only to students in the Integrated Science Élementary Teaching major. Not open to students with credit in SME 301.

Analysis of the concepts integrating science across life sciences, earth sciences, and physical sciences. Applications to the K-8 science curriculum.

### 348 Reading and Responding to Children's Literature

Fall, Spring, Summer. 3(3-0) Literary understanding and genres in reading and teaching children's literature. Critical and theoretical perspectives in evaluating children's literature. Children's responses to literature. Literary, social, and pedagogical issues in the study of children's litera-

## 401 **Teaching of Subject Matter to Diverse**

Learners-Elementary
Fall. 5(3-8) P:M: (MTH 201 and TE 301 and TE 348) and completion of Tier I writing requirement RB: MTH 202 R: Not open to freshmen or sophomores. Open only to students admitted to the elementary teacher certification program.

Examining teaching as enabling diverse learners at the elementary level (K-8) to inquire into and construct subject-specific meanings. Adapting subject matter to learner diversity. Exploring multiple ways diverse learners make sense of the curriculum.

# **Crafting Teaching Practice - Elementary** (W)

Spring. 6(4-8) P:M: (TE 401) and completion of Tier I writing requirement R: Not open to freshmen or sophomores. Open only to students admitted to the elementary teacher certification program.

Gathering data on learners to inform content and instructional decisions at the elementary level (K-8). Deciding what should be taught for specific disciplines. Teachers' multiple roles and their professional, intellectual, sociopolitical, and communal responsi-

# **Teaching Subject Matter to Diverse** Learners – Secondary (W) Fall. 5(3-8) P:M: (TE 301 or TE 302) or

completion of Tier I writing requirement R: Not open to freshmen or sophomores. Open only to students admitted to the secondary teacher certification program.

Examining teaching as enabling diverse learners to inquire into and construct subject-specific meanings at the secondary level (7-12). Adapting subject matter to learner diversity. Exploring multiple ways diverse learners make sense of the curriculum.

### 408 Crafting Teaching Practices - Secondary

Spring. 6(4-8) P:M: (TE 407) and completion of Tier I writing requirement R: Not open to freshmen or sophomores. Open only to students admitted to the secondary teacher certification program.

Gathering data on learners to inform content and instructional decisions. Deciding what should be taught for specific disciplines at the secondary level (7-12). Teachers' multiple roles and their profesintellectual, sociopolitical, and communal sional. responsibilities.

### Integrated Science Research for 420 **Elementary Schools**

Fall. 3(2-2) Interdepartmental with Science and Mathematics Education. Administered by Science and Mathematics Education. P:M: SME 320 and (STT 200 or STT 201) R: Open only to students in the Integrated Science Elementary Teaching major.

Research design and data analysis of individual research projects relevant to the K-8 science curriculum, integrating topics in life, earth, and physical

### 490 Independent Study in Teacher Education

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen or sophomores. Open only to students admitted to the teacher certification program. Approval of department.

Supervised individual or small group study of the practice of teaching.

### 491 **Special Topics in Teacher Education**

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen or sophomores. Open only to teacher certification candidates

Aspects of teaching practice and inquiry into prac-

### Field Experience in Teacher Education 494

Fall, Spring. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Approval of department.

Supervised practica and/or observations in educational settings.

### Student Teaching in Music 495

Fall, Spring. 9 credits. Interdepartmental with Music. Administered by Music. R: Open only to seniors in the Music Education ma-

Supervised music teaching experience in schools. On-campus seminar required.

### Internship in Teaching Diverse Learners I 501

Fall. 6(2-24) P:M: TE 402 or TE 408 R: Open only to students seeking teacher certification.

Directed and evaluated internship in heterogeneous classrooms. Teaching worthwhile content to students with varied learning needs. Theoretical and field-based explorations of common teaching dilemmas.

### 502 Internship in Teaching Diverse Learners

Spring. 6(2-24) P:M: TE 501 R: Open only to students admitted to the Teacher Certification Internship-Year Studies Program. Not open to students with credit in CEP 502A or CEP 502C.

Continuing internship in heterogeneous classrooms at selected schools. Increased emphasis on independent teaching. Maintaining classroom communities that ensure equitable access to important knowledge and skills. Assessing academic and social outcomes.

### 801 **Professional Roles and Teaching** Practice I

Fall. 3(2-3) P:M: TE 402 or TE 408 R: Open only to students admitted to the Teacher Certification Internship-Year Studies Program. Not open to students with credit in CEP 801A.

Teachers' professional and ethical responsibilities. Connections of schools to other social agencies. Relations of teachers to colleagues, families, other social service providers, and community leaders. Roles in school governance.

## 802 Reflection and Inquiry in Teaching

Fall. 3(2-3) P:M: TE 402 or TE 408 R: Open only to students admitted to the Teacher Certification Internship-Year Studies Program. Not open to students with credit in CEP 802A or CEP 802C.

Qualitative and quantitative research methods on teaching and learning. Criteria for judging the validity and applicability of research-based knowledge. Framing educational problems worthy of inquiry. Designing and assessing studies of teaching prac-

### 803 **Professional Roles and Teaching** Practice II

Spring. 3(2-3) P:M: TE 801 R: Open only to students admitted to the Teacher Certification Internship-Year Studies Program. Not open to students with credit in CEP 803A or CFP 803C

School-agency alliances for fostering student learning. Strategies for working with families and community groups to improve responsiveness of the school curriculum to student needs. Child advocacy in the school and community.

### 804 Reflection and Inquiry in Teaching Practice II

Spring. 3(2-3) P:M: TE 802 R: Open only to students admitted to the Teacher Certification Internship-Year Studies Program. Not open to students with credit in CEP 804A or CEP 804C.

Collecting, analyzing, and interpreting data on teaching, learning, and educational policy. Dilemmas surrounding research on practice. Appraising and reporting results of inquiry.

### **Learning Mathematics with Technology** 805

Fall. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Counseling, Educational Psychology and Special Educa-

Current technologies for teaching and learning mathematics with understanding. Technology for multiple representations of mathematical ideas, modeling, and authentic learning environments. Psychological and mathematical perspectives on learning mathematics.

#### 806 Learning Science with Technology

Spring. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Counseling, Educational Psychology and Special Educa-

Possibilities, ideas, and issues associated with teaching science with technology. How K-12 teachers use Internet resources (e.g. simulations, databases, communities) to facilitate science learning. Contemporary conceptual perspectives from educational psychology on important issues of learning.

Professional Development and Inquiry
Fall, Summer. 3(3-0) R: Open only to masters students in Curriculum and Teaching.

Teacher-centered inquiry through autobiography and documentation of self as learner. Relationship of personal research to classroom-based research. Application to practice.

## 808 Inquiry into Classroom Teaching and

Fall, Spring, Summer. 3(3-0) P:M: TE 807 R: Open only to masters students in Curriculum and Teaching.

Alternative forms of classroom inquiry to improve teaching and learning of subject matter. Social context of teaching and learning, pedagogy, and teaching effects. Social and academic outcomes for diverse learners.

### **History of American Education** 810

Spring of odd years. 3(3-0)

Social and intellectual history of educational ideals and institutions. Legacies of reform initiatives. Evolution of the education profession.

### **Philosophical Inquiry and Contemporary** Issues in Education

Fall, Spring. 3(3-0)

Philosophies of education. Analytic tools used for evaluating current educational goals, practices, issues, and reforms.

# Sociological Inquiry into Education

Spring of even years. 3(3-0)

Relationships of educational organizations and practices to social structures and institutions.

# **Education, Development and Social** Change

Spring of odd years. 3(3-0) Interdepartmental with Educational Administration. Administered by Educational Administration.

Rise of modern systems of education in developed and developing countries. Education, the state, and national development. Colonial heritage, linkages, and globalization of educational development.

## **Comparative Analysis of Educational** Practice

Fall of even years. 3(3-0)

Cross-national comparison of educational practices in light of differences in culture, social organization, economic conditions, and historical circumstance. International perspectives on education in the United States. Borrowing and adapting educational practic-

### 816 **Education in Transition**

Fall of odd years. 3(3-0)

Comparative analysis of change in educational concepts, policies, and practice.

#### 818 **Curriculum In Its Social Context**

Fall, Spring. 3(3-0)

Philosophical, social, and historical foundations of curriculum. Issues and practices across subjects, grades, and school settings. Moral consequences of curriculum decisions for teachers and students.

### Power and Pluralism in School Practice 820

Spring of odd years. 3(3-0)

Connections between schools and diversity, inequality, and power in society. Genesis and consequences of school policies for diverse learners.

# Race and Educational Policy in the **United States**

Spring of even years. 3(3-0)

Educational policy in relation to race in the United States. Efforts to promote equity through racially sensitive curricular and instructional practices.

### 822 Issues of Culture in Classroom and Curriculum

Fall of odd years. 3(3-0)

Socio-cultural contexts and functions of schooling. Cultural diversity in education. Schools and classrooms as cultural systems. Students' cultural backgrounds in relation to curriculum. Developing effective multicultural curricula for all students.

## **Learning Communities and Equity** Spring. 3(3-0)

Cooperative grouping and heterogeneous learning teams. Impact of learning communities on equity and on school curricula.

### 825 **Diverse Learners and Learning Subject** Matter

Summer. 3(3-0)

Multiple perspectives on teaching subject matter to diverse learners. Texts, curricula, and pedagogical approaches. Subject-specific issues related to classroom diversity.

# 826 **Evaluation of Educational Programs and**

Spring. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Counseling, Educational Psychology and Special Education. RB: CEP 822

Qualitative and quantitative methods to assess the effectiveness of public policies and resulting educational programs. Theory and practice of program evaluation.

### **Designing Interdisciplinary Curricula** 830

Spring of even years. 3(3-0)

Historical and conceptual analyses of ways to design, organize, and integrate curricula across subject areas. Evaluation and application of criteria for planning and teaching interdisciplinary curricula.

# **Teaching School Subject Matter with** Technology

Fall, Spring. 3(3-0)

Uses of technologies in teaching subject matter to diverse learners. Critical perspectives on technologies in schools.

### 834 **Reading Comprehension Instruction**

Fall. 3(3-0) SA: TE 883C

Effectiveness of various approaches to reading comprehension instruction. Influences of different classroom contexts on reading comprehension instruction

# 835 Theory and Research on the Teaching of Writing

Spring. 3(3-0) SA: TE 883D

Social, cognitive, and developmental perspectives on teaching writing. Implications for curriculum and instruction in middle and secondary schools.

## 836 Awards and Classics of Children's Literature

Spring of even years. 3(3-0) RB: TE 849 SA: TE 883B

Critical examination of literary classics and award books for children, including children's responses to this literature

# 837 Issues and Trends in English Education

Fall. 3(3-0) R: Open only to master's students in Literacy Instruction and master's students in Critical Studies in Literacy and Pedagogy.

Major trends in the development of English as a school subject. Evolution of standards for English instruction and conceptions of accomplished teaching of English. Preparation of preliminary portfolio to guide students' program plan decisions.

# 840 Proseminar I: Historical Bases of Literacy Instruction

Fall. 3(3-0) R: Open only to graduate students in Literacy Instruction.

Relationships between language processes and schooling.

## 841 Proseminar II: Psychological Bases of Literacy Instruction

Spring. 3(3-0) RB: TE 840 R: Open only to graduate students in Literacy Instruction.

Psychological foundations of literacy instruction, including theories and models of reading and writing. Psychological processes, social and contextual factors, and text features relevant to literacy instruction

# 842 Advanced Methods of Elementary School Reading

Fall, Summer. 3(3-0)

Methods and materials for teaching developmental and content area reading in grades K-8.

# 843 Reading, Writing, and Reasoning in Secondary School Subjects

Spring. 3(3-0)

Knowledge and methodology for teaching language, literacy, and thinking in selected secondary school subjects.

# 844 Classroom Literacy Assessment

Summer. 3(3-0)

Knowledge and methodology about ongoing and summative types of classroom assessment in oral language, reading, and writing at the elementary and secondary levels.

## 845 Language Diversity and Literacy Instruction

Fall. 3(3-0) RB: One introductory linguistics course

Acquisition of literacy in schools by language minority students and other learners with diverse backgrounds.

## 846 Accommodating Differences in Literacy Learners

Fall, Spring, Summer. 3(3-0) RB: Access to two K-12 students for course requirement to conduct two case studies.

Developmental processes, instructional practices, and assessment principles that contribute to effective learning of reading and writing. Teaching methods for accommodating the different needs of individual literacy learners.

# 847 Methods for Teaching Language Arts Fall. 3(3-0)

Methods and materials for teaching listening, speaking, reading, and writing with emphasis on language development across the curriculum.

# 848 Methods of Writing Instruction

Spring of even years. 3(3-0) RB: TE 847 Rationale and methods for writing instruction from pre-writing through drafting and editing.

# 849 Methods and Materials for Teaching Children's and Adolescent Literature Fall of odd years, Summer of even years.

3(3-0)

Evaluation and utilization of various genres and elements of literature with focus on literature for students in grades K-12.

# 850 Critical Reading for Children and Adolescents

Fall of even years. 3(3-0) P:M: (TE 849) Teaching and learning of critical and aesthetic responses to literature for K-12 students.

# 851 Literacy for the Young Child in Home and School

Spring of odd years. 3(3-0) RB: TE 849 Literacy development in children from early infancy through age six, with emphasis on evaluation and utilization of writings for young children.

# 853 Corrective and Remedial Literacy Instruction in the Classroom

Fall. 3(3-0

Causes and correlates of individual differences in literacy abilities, especially among disabled readers and writers. Individualized reading diagnosis and corrective treatment plans and procedures for K-12 students and/or adult/alternative classes.

# 854 Clinical Literacy Instruction

Spring of even years. 3(3-0) RB: TE 843
Clinical applications of corrective and remedial assessment and instruction for individuals with severe complex literacy problems. Assessment and treatment for students and/or adults with severe and complex reading/literacy and reading/literacy related difficulties.

# 855 Teaching School Mathematics

Fall. 3(3-0) RB: Two undergraduate mathematics courses.

Methods, materials, activities, and content important to teaching mathematics. Emphasis on conceptual understanding of mathematical ideas. Implications for lesson development, teaching diverse learners, and evaluating student learning.

## 856 Alternatives in School Mathematics Curriculum

Spring, Summer. 3(3-0) RB: Two undergraduate mathematics courses.

Selection and appraisal of mathematics curricula. Uses of materials in the classroom. Representation of selected mathematical content for diverse learn-

# 857 Teaching and Learning Mathematical Problem Solving

Spring. 3(3-0) RB: Two undergraduate mathematics courses.

Alternative approaches to solving mathematical problems and incorporating problem solving into K-12 teaching. Selection, appraisal, and uses of problems in the classroom. Materials and assessment strategies.

## 860 Practice and Inquiry in Science Education

Spring. 3(3-0)

Teaching science subjects. Emphasis on learner diversity, learning community, conceptual understanding, subject matter content, and learners' prior knowledge.

# 861A Teaching Science for Understanding

Spring. 3(3-0) RB: A teaching certificate with concentration in science teaching at elementary or secondary level. Enrollees should be teaching or otherwise have access to a classroom for the practical components of this course.

Responses to contemporary over-emphasis on memorization and coverage of content knowledge in science teaching. Theoretical knowledge, techniques, and practical skills necessary to teach science for understanding.

### 861B Inquiry, Nature of Science, and Science Teaching

Fall. 3(3-0) RB: A teaching certificate with concentration in science teaching at elementary or secondary level. Enrollees should be teaching or otherwise have access to a classroom for the practical components of this course.

Inquiry and the nature of science as part of current science education reforms. Theoretical knowledge and practical skills for including inquiry and the nature of science in science instruction.

# 861C Action Research in K-12 Science and Mathematics Classrooms

Summer. 3(3-0) P:M: (TE 861A or concurrently) or TE 861B RB: A teaching certificate with concentration in science teaching at elementary or secondary level. Enrollees should be teaching or otherwise have access to a classroom for the practical components of this course.

Philosophy and methods supporting action research in sciences and mathematics classrooms. Design and implementation of an action research project in student's own setting. Analyzing, interpreting, and reporting project results. Reflection on study's value.

# 865 Teaching and Learning K-12 Social Studies

Fall 3(3-0)

Purposes for teaching and learning social studies. Developing citizenship, social science reasoning, and content knowledge with diverse learners.

# 866 K-12 Social Studies Curriculum

Spring of odd years. 3(3-0)

Issues and practices in social studies from historical, philosophical, and epistemological perspectives. Student diversity and the social studies curriculum. Reforms and needed research in social studies education.

### 867 Perspectives in Social Studies: Global Education

Fall of odd years, Summer. 3(3-0)

Issues affecting the global community. Educational strategies for developing a global perspective on human relationships and the environment.

### 868 Perspectives in Social Studies: Law-Related Education

Summer. 3(3-0)

Intellectual, social, and personal premises for lawrelated education. Strategies for curricular infusion.

### 870 Curriculum Design, Development, and **Deliberation in Schools**

Fall, Spring, Summer. 3(3-0) P:M: TE 807 and TE 808 and TE 818 R: Open only to master's students in the Curriculum and Teaching major.

Simulation in group curriculum deliberation. Critique of curriculum discourse, process, and product. Teachers' roles in site-based curriculum and staff development.

### 872 **Teachers as Teacher Educators** Spring. 3(3-0)

Experienced teachers' contributions to the professional development of novice teachers. Implications for school change.

#### 873 Literacy Leadership

Spring. 3(3-0) RB: Nine credits in reading or language arts and classroom teaching experience.

Leadership roles for teachers in developing and improving literacy programs at preschool, K-12, college, and adult education levels. Assessing local needs in the context of national and state professional standards for literacy instruction. Maximizing use of resources. Evaluating programs and communicating evaluation results.

# **Community Literacy**

Spring of even years. 3(3-0) Interdepartmental with Arts and Letters. Administered by Arts and Letters. R: Open only to doctoral students in the Rhetoric and Writing major or master's students in the Digital Rhetoric and Professional Writing major or graduate students in the Department of English or College of Education.

Applied research in a community organization, non-profit agency, workplace, or school. Theories and designs of service learning pedagogies.

### **Teaching College Mathematics** 879

Fall. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Counseling, Educational Psychology and Special Education and Mathematics and Science and Mathematics Education. Administered by Science and Mathematics Education. RB: Past or concurrent mathematics teaching experience.

Curriculum materials, case studies, approaches to teaching and student learning of particular mathematics topics.

### 882 Seminars in Curriculum and Teaching

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

Intensive study of selected topics in curriculum and teaching.

### 883 **Seminars in Literacy Instruction**

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

Intensive study of selected topics in literacy instruc-

### 890 Independent Study

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

Supervised individual study in an area of curriculum, teaching, or schooling.

# Special Topics in Teaching, Curriculum, and Schooling

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 15 credits in all enrollments for this course.

Current special topics in various fields of teacher education.

## **Special Topics in Science Education**

Summer. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to master's students or doctoral students.

Issues related to teaching K-12 school subjects to diverse learners.

### 894 Laboratory and Field Experiences in Curriculum, Teaching, and Schooling

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

Supervised graduate practica and internships in curriculum, teaching, and schooling.

### 895 Research Ethics

Summer. 1(1-0) Interdepartmental with Counseling, Educational Psychology and Special Education and Educational Administration and Kinesiology. Administered by Kinesiology. R: Open to graduate students. SA: PES 895

Identifying and resolving ethical problems in research. Collegial interactions. Authorship, publication, and reviewing practices. Data management. Ownership of data and intellectual property. Conflicts of interest. Protection of human and animal subjects. Lab safety and compliance.

# Master's Thesis Research

Fall, Spring, Summer. 2 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course.

Master's thesis research.

### Proseminar in Curriculum, Teaching and 901 **Educational Policy I**

Fall. 3(3-0) R: Open only to doctoral students in the Curriculum, Teaching, and Educational Policy major.

Two historical episodes related to improving teaching practice, teacher and student learning, curricula, and educational policy. Nature and effects of educa-

### 902 Proseminar in Curriculum, Teaching, and Educational Policy II

Spring. 3(3-0) RB: TE 901 R: Open only to doctoral students in the Curriculum, Teaching, and Educational Policy major.

Two historical episodes related to improving teaching practice, teacher and student learning, curricula, and educational policy. Nature and effects of educational reforms

### 907 **Psychological Study of Teaching**

Fall of odd years. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Counseling, Educational Psychology and Special Education. R: Open to doctoral students

Research literature on psychological aspects of teachers and teaching. Topics include teacher's decision-making, learning from experience, and developmental changes.

### Psychological and Cognitive Aspects of 912 Literacy Learning

Spring. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Counseling, Educational Psychology and Special Education. R: Open to doctoral students.

Theory and research on psychological and cognitive aspects of literacy learning and use in sociocultural

### 913 Psychology and Pedagogy of Mathematics

Fall of odd years. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Counseling, Educational Psychology and Special Education. RB: CEP 902 R: Open to doctoral students.

Psychological theory and research on the learning of mathematics. Development of mathematical thinking and knowledge in school and other settings.

### Literacy, Learning and Development in 915 Sociocultural Context

Fall. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Counseling, Educational Psychology and Special Education. R: Open to doctoral students.

Role of language and literacy in mediating cognition, affect, and action in educational contexts. Relationship between oral and written discourse and sociocultural contexts.

### 917 **Contemporary Theories and Discourses** in Education

Fall of even years. 3(3-0)

Logical positivism, interpretive theories, critical theory, feminist theory, poststructuralism and neopragmatism. Applications to curriculum, teaching, and educational policy.

### 918 Disciplinary Knowledge and School Subjects

Spring. 3(3-0)

Cross-disciplinary comparisons of the nature of knowledge, its creation, refutation, and use. Correspondence between disciplinary knowledge and knowledge as represented in schools.

# Policy Analysis in Education

Fall. 3(3-0)

Conception, generation, and analysis of educational policies. Contexts such as governance levels, national setting, and legislative forms. Uses, limitations, and ethics of policy analysis.

## Social Analysis of Educational Policy Spring. 3(3-0)

Social science perspectives on factors outside and inside school systems which shape policy and influence both the nature of policy problems and the form of educational solutions.

### 921 Learning to Teach

Fall. 3(3-0)

Intellectual, practical, and moral dimensions of teaching and learning to teach. Impact of formal and informal influences on teachers' knowledge, skills,

### 922 **Contexts and Micropolitics of Teacher** Education

Fall of odd years. 3(3-0)

Historical and contemporary forms of teacher education in relation to social and institutional contexts. Relation of traditional and innovative programs to basic tensions and issues in the field.

# Comparative Perspectives on Teaching, Curriculum, and Teacher Education 923

Spring of odd years. 3(3-0)

Contrasting national responses to universal questions. Links among education and other nationbuilding institutions. Organization and distribution of knowledge. Organization of, preparation for, and practice of teaching.

### 924 Philosophy of Education: Ideas and Methods

Spring of even years. 3(3-0)

Selected ideas in education from different philosophical traditions. Issues of method, historical perspectives, and textual analysis.

### 926 Proseminar in Mathematics Education I

Fall. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education and Mathematics and Science and Mathematics Education. Administered by Science and Mathematics Education.

Research on the learning and teaching of mathematics. Teaching, teacher and student learning, curriculum, and educational policy. Historical, philosophical, empirical, and theoretical perspectives.

### 927 Proseminar in Mathematics Education II

Spring. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education and Mathematics and Science and Mathematics Education. Administered by Science and Mathematics Education. P:M: SME 926

Continuation of SME 926.

### 928 Proseminar in Educational Policy

Fall. 3(3-0) Interdepartmental with Educational Administration. Administered by Educational Administration.

Disciplinary perspectives on policy issues. Influence of research on policy process. Politics and educational practice as determinents of policy choice.

### **Qualitative Methods in Educational** 931 Research

Fall, Spring, Summer. 4(4-0) Interdepartmental with Counseling, Educational Psychology and Special Education and Educational Administration. Administered by Teacher Education. RB: CEP 930

Multiple traditions of qualitative research in education. Theory, research questions and design, data collection and analysis, and reporting. Ethical issues. Appraising qualitative research.

### 940 **Curriculum Deliberation and** Development

Fall of odd years. 3(3-0)

Research in curriculum deliberation and development. Discourse, group dynamics, processes, and outcomes for teaching and learning.

### 942 **Economic Analysis in Educational Policy** Making

Spring of even years. 3(3-0) Interdepartmental with Educational Administration. Administered by Educational Administration.

Economic effects of education. Economic analysis of policy issues in education. Alternative theoretical perspectives. Applications to the United States and other countries.

### 943 Seminar in Professional Development

Spring of even years. 3(3-0)
Synthesis and application of knowledge acquired through consideration of research and field-based inquiry from teacher practice and change initiatives.

### 946 **Current Issues in Literacy Research and** Instruction

Spring. 3(3-0)

Current research trends in the psychological, social, and political dimensions of literacy and literacy

### 950 **Mathematical Ways of Knowing**

Fall of even years. 3(3-0) RB: Two undergraduate mathematics courses.

Philosophical, cultural, political, societal, psychological, and historical perspectives on knowing in mathematics as a discipline.

# **Design and Methods in Mathematics** Education Research

Fall of odd years. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education and Mathematics and Science and Mathematics Education. Administered by Science and Mathematics Education. RB: SME 926 and SME 927

History, current trends, and issues pertaining to research design and methods in mathematics education research. Mathematics education research in the areas of policy, teaching, teacher learning, and student learning with particular attention to how features of research designs influence research findings.

# 955 Contemporary Issues in Science

Curriculum and Teaching
Fall. 1 to 3 credits. A student may earn a
maximum of 6 credits in all enrollments for this course

Epistomological, social, psychological, and historical foundations of science education in relation to contemporary issues and problems of science curriculum, teaching, and policy.

### 958 Using Literacy to Learn: Curriculum and Pedagogy

Fall. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Teacher Education. R: Open only to Ph.D. students in the College of Education.

Centrality of oral and written language in all school Curriculum as text and instruction as learning. discourse. Historical development of literacy curriculum and pedagogy as conceptualized and enacted in school settings. Language of teaching and learning in the classroom.

### 959 **Acquisition and Development of** Language and Literacy

Spring. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Teacher Education. R: Open only to Ph.D. students in the College of Education.

Literacy development including oral language base from birth through adulthood. Oral and written language development and learning in and out of Sociocultural contexts in relationship to schooling. Cross-cultural and international literacy development. Schooling, global economy, world health, and post-colonialism.

### Language, Literacy, and Educational 960 Policy

Fall of odd years. 3(3-0)

Policy in relation to framing curriculum. The linguistic nature of pupil assessment. Gatekeeping functions of schools.

### 970 **Curriculum and Pedagogy in Teacher** Education

Spring of even years. 3(3-0)

Teacher learning opportunities at the preservice, induction, and inservice levels. Intended and enacted curriculum, sources of pedagogy, and their impact on teachers' knowledge, skills, and attitudes.

# **Teacher Learning in School Settings**

Fall of odd years. 3(3-0) Research about school-based learning by prospective, beginning, and experienced teachers. Observation, conversation, writing, and classroom research as tools for improving teaching.

### Policy Perspectives on Teaching and 975 **Teacher Education**

Fall of even years. 3(3-0)

Policy issues such as teacher accountability, teacher knowledge, and political influence.

### 982 Seminar in Curriculum, Teaching, and Educational Policy

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course.

Intensive study in an area of curriculum, teaching, and learning; educational policy and social analysis; or teacher education and teacher learning.

### 990 Independent Study

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to doctoral students.

Supervised individual study in an area of curriculum, teaching, and educational policy.

# Special Topics in Curriculum, Teaching, and Educational Policy

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

### **Special Topics in Science Education** 991A

Spring of even years. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

Special topics in science education.

# **Teacher Education—TE**

## 994 Laboratory and Field Experience in Curriculum, Teaching, and Educational

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to

doctoral students. Approval of department. Supervised practica, observations, and internships in an area of educational policy and social analysis, teacher education and teacher learning, and curriculum, teaching and learning.

# 995

Research Practicum in Curriculum,
Teaching, and Educational Policy
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to educational specialists in the Department of Tracker Education and expent to declarate Teacher Education and open to doctoral students in the College of Education. Approval of department.

Supervised research practicum. Design, execution, analysis, presentation, critique, and revision of research projects.

### 999 **Doctoral Dissertation**

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 100 credits in all enrollments for this course. R: Open only to doctoral students in the Department of Teacher Education.

Doctoral dissertation research.