

## **Education Courses (GRED)**

**GRED 502 Issues in Science–Technology–Society (3)** The modern foundations of science education are perhaps best expressed in the concepts commonly associated with STS (Science–Technology–Society). STS defines scientifically and technologically literate individuals as those who understand how science, technology, and society influence one another, and use this understanding in their every day decision making. STS describes 13 characteristics of the scientifically literate person: 1) uses science concepts, process skills, and values in making responsible everyday decisions; 2) understands how society influences science and technology as well as how science and technology influence society; 3) understands that society controls science and technology through the allocation of resources; 4) recognizes the limitations as well as the usefulness of science and technology in advancing human welfare; 5) knows the major concepts, hypotheses, and theories of science and is able to use them; 6) appreciates science and technology for the intellectual stimulus they provide; 7) understands that the generation of scientific knowledge depends upon the inquiry process and upon conceptual theories; 8) distinguishes between scientific evidence and personal opinion; 9) recognizes the origin of science and understands that scientific knowledge is tentative; 10) understands the application of technology and the decisions entailed in the use of technology; 11) has sufficient knowledge and experience to appreciate the worthiness of research and technological development; 12) has a richer and more exciting view of the world as the result of science education; and 13) knows reliable sources of scientific and technological information and uses these sources in the process of decision making. In this course students examine and evaluate the 13 characteristics listed above and use conclusions to make recommendations for teaching science in grades 7–12. Issues in health and drug education will be discussed in this course. Offered fall.

**GRED 503 Educational Law (3)** Study of principles and procedures underlying educational law in the United States with emphasis upon New York State. Analysis of critical current issues, church-state relationships, transportation, discipline, liability and teacher rights and responsibilities.

**GRED 504 Using Spreadsheets in Teaching School Mathematics (3)** The course is designed as an introduction to computational methods for concept development in school mathematics by using an electronic spreadsheet program. It demystifies the stereotype of using this commonly available software as a mathematical/pedagogical tool. The teachers will explore various pedagogical strategies and alternative computational ideas aimed at the design of spreadsheet-enabled lessons relevant to K–12 mathematics curriculum. Developed in accord with NYS Learning Standards, the course activities will be oriented towards fostering teacher's ability to take intellectual risks in making pedagogical and/or curricula decisions.

**GRED 505 Topics in Mathematics for Elementary Teachers (3)** This course is designed to improve mathematical preparation of elementary teachers in the MST degree program. It fosters the development of profound understanding of mathematics taught to younger children through the in-depth study of basic mathematical ideas and concepts, emphasizes the importance of contemporary pedagogy, including the use of technology. The course has a potential to reduce math anxiety of teachers and develop their confidence in doing and teaching mathematics.

**GRED 507 Developing a Positive Self-Concept (3)** Students will study and apply ingredients that aid in the development of a positive self-concept. Caring, sharing, giving, accepting acceptance, etc. will be practiced within the class setting. The invitational education model will be stressed as a way to enhance one's self-concept both personally and professionally. Classroom projects and assignments will meet the professional and/or personal needs of the individual student. Offered summer.

**GRED 510 Museums and Local Sites as Educational Resources (3)** An examination of the general purposes of various types of museums and local sites, the contributions each can make to PreK–12 curriculums, and the instructional methods best suited for use in the student's own teaching situation (be it public school classroom or other educational setting). Involves visits/field work at selected area museums and sites. Designed for education and non-education students. Offered spring (odd years).

**GRED 511 Humanistic Education (3)** Designed to focus on the discovery of meaning within teaching-learning situations and to explore the student's search for self-identity. The course will emphasize student-centered curricula, knowing students as unique individuals, classroom motivation and control, relevant knowledge, student creativity and self-evaluation. Inviting school success with the use of the invitational education model and Covey's principles of highly effective people will also be stressed.

**GRED 514 International and Global Education (3)** Part I of the course examines the roles of values in elementary and secondary education: teaching values, teaching about values and values clarification. Part II builds upon this conceptual base and applies it to specific social and ethical issues in the elementary and secondary curriculum: war and peace, food and hunger, environmental stewardship. Offered fall (odd years).

**GRED 515 Teaching Local History and Community Studies (3)** Analysis of the role of local history and community studies in the elementary and secondary curricula of New York State with emphasis on the subject of social studies. Investigation of resources available in North Country local communities: persons, artifacts and sites. Several in-class resource guests and some class visits to selected sites.

**GRED 516 Multicultural Education (3)** The course is designed to help increase education students' awareness of the importance of culture in teaching. Upon completion of this course students will be able to incorporate a variety of multicultural approaches in their own subject matter and regular classroom teaching. Offered summer and fall.

**GRED 517 Integrating the Arts into the Elementary Classroom (3)** This course will help classroom teachers gain an increased understanding and appreciation of the value and importance of including the arts as an integral part of classroom curriculum. New York State Standards for the Arts will serve as a guide as activities are developed to enhance children's cognitive, social, and emotional development. Participants will gain experience, familiarity, and comfort with various aspects of the arts (dance, music, theatre, and visual arts). Offered summer, fall and spring.

**GRED 521 Language Acquisition and Learning in a Linguistically Diverse Society (3)** Students will gain knowledge and understanding concerning language acquisition and literacy development in a second language for young children (Birth–8 years). Students will apply the knowledge and understanding they gain to classroom situations. Students will plan, develop, and implement instructional practices.

**GRED 522 Creative and Affective Experiences in Early Childhood (3)** This course is designed to focus on the value of play to develop the whole child in an environment that supports play. Students will plan and implement child-centered integrated learning experiences in play, music, drama, sensory, and art based on developmental needs of children. Offered summer.

**GRED 523 Child, Family and Teacher Relations (3)** This course focuses on developing an understanding of traditional and non-traditional families, structural and life-style variations, and parenting in diverse and at-risk families. Implications from these understandings will guide development of a parent involvement plan that includes effective ways to communicate with parents, conference with parents, and plan parent meetings and home visits.

**GRED 530 Classroom Management and Discipline (3)** This course is designed to develop the skills necessary to manage student behaviors in the classroom. The focus will be on effective practices and techniques

for behavior management and discipline. Participants will be provided opportunities to practice different approaches through various activities. Current issues and problems will be discussed. Offered summer (odd years), fall and spring.

**GED 531 Creative Problem Solving – Mathematics (3)** This course is designed with the goal to provide teachers with the experience of mathematical discovery through creative problem solving. A variety of instructional approaches, including the use of computers, will be examined by solving open-ended problems relevant to school mathematics curriculum. Offered summer.

**GED 533 Outdoor Activities for Teaching Science (3)** This course is designed for secondary and elementary teachers of science. The main objective of this course is to provide science teachers with activities that can be used to teach students in an outdoor setting. Methods of soil and water testing, topographic map reading, compass use, plant and animal identification, population dynamics, ecosystem analysis, food chain/web structures, stream discharge volumes/rates, and land forms will be examined. The course will be taught in a Wilderness area of Adirondack Park. The class will be limited to 12 students. Permission of the instructor is required for acceptance into this course. Offered summer.

**GED 534 Teaching Math in a Technological World (3)** Technology is changing the content and delivery of mathematics instruction in today's classrooms. This course will allow teachers to explore ways in which technology can be used to enhance instruction. Students also will consider related curricular issues outlined in the NYS Math, Science and Technology Framework and the NCTM Standards. This course is appropriate for middle school and secondary school mathematics teachers. Students will work on projects which fit their level of expertise and interest. Offered fall.

**GED 535 School Mathematics from an Advanced Standpoint (3)** This course is designed for pre-service and in-service school mathematics teachers and provides an advanced treatment of mathematical content typically associated with the secondary mathematics curriculum. The course activities involve the extension and generalization of mathematical propositions, informal and formal methods of justification, demonstration and proof, and the analysis of problems and concepts. Offered spring.

**GED 538 Mathematical Modeling in School Mathematics (3)** An overview of mathematical modeling concepts oriented toward the goal of integrating modeling activities in the school mathematics curriculum. Provides pre-service or in-service teachers an introduction to the mathematical modeling process, including creative and empirical model construction, model analysis and model research. Discrete and continuous modeling methods will be discussed and employed within both empirical and theory-based approaches. Offered spring (odd years).

**GED 539 Explorations in Discrete Mathematics for Teachers (3)** Discrete mathematics is an area of mathematics that has grown rapidly and taken on greater significance in the past few decades. Problems in discrete mathematics often involve real-world applications and can be posed to students at a variety of grade levels. National and state curricular standards are calling for a greater integration of discrete math topics into the K–12 math curriculum. This course will present pre-service and in-service middle and secondary math teachers with an overview of discrete mathematics and explore (at an advanced level) a variety of problems suitable for use in the classroom. Offered spring (even years).

**GED 544 Cooperate to Educate (3)** This course is designed to provide classroom teachers and/or someone interested in becoming a classroom teacher the knowledge and practice in developing techniques needed to design and implement cooperative learning groups. Various teaching strategies in the following will be explored as integral to cooperative learning: group roles/responsibilities; creative and critical thinking/problem solving; creating a brain-compatible environment; thematic instructional units; resources (physical, human, etc.); other pertinent techniques depending on the knowledge and experience of the group.

Offered summer.

**GED 545 Diverse Literature Seminar: Reading Language Arts (3)** This seminar investigates a broad range of literature for children and adolescents. It examines literature sensitive to gender and multicultural diversity.

**GED 548 Literacy and Literature for Young Children (3)** Selected examples of literature for young children are utilized in demonstrating methods of developing literacy using a literature-based approach. Special emphasis is placed on the use of such materials for enriching classroom literacy programs and also individualizing student development. Special attention is given to literature that represents cultural diversity and literature that allows for the integration of literacy development with other content areas described in New York State Learning Standards. Offered summer, fall and spring.

**GED 549 Adolescent Literature and the Teaching of Reading/Literacy (3)** This course includes: 1) intensive and extensive reading of contemporary young adult literature; 2) study and development of strategies for teaching reading, writing, speaking, and listening through the use of adolescent literature; and 3) re-structuring curricula and teaching strategies to provide for the literacy needs, interests, and abilities of all learners. Students will also work in the computer lab using and locating resources on teaching adolescent literature, constructing reading data bases, and examining instructional uses of power point and electronic communication. Offered summer, fall and spring.

**GED 550 Introduction to Teaching English Language Arts, Grades 7–12 (3)** A concepts-based approach will be used to provide an introduction to current theory and research on curriculum, teaching, learning, and evaluation in the secondary ELA classroom. State and national standards for the English Language Arts of reading, writing, speaking, and listening will be examined and an introduction to teaching strategies and framing school curricula to meet these standards will be explored. MST students only. Co-requisite: GRED 592. Offered fall.

**GED 551 Early Child Curriculum: Integrated Math, Science and Social Studies (3)** Candidates will have opportunities to apply knowledge and skills in authentic field experiences and become objective observers of the development of young children. They concurrently will have lecture classes where they will develop an understanding of Science and Mathematical concepts for the appropriate stages of the cognitive development of young children. The emphasis will be placed upon how science and math can be integrated throughout the curriculum and become valued functional tools.

**GED 552 Teaching Vietnam: Cultural/Historical Travel Program (3)** This course is a travel course to Vietnam which also requires Saturday seminars prior to leaving. The seminars and trip focuses on historical and cultural differences between Americans and Vietnamese as a way to integrate the concepts of religious diversity (Buddhism; Cao-Daism; Judeo-Christian, etc), history, ancestralism, nationalism, civil unrest and war, ecological consequences, and others into a comprehensive interdisciplinary study. There will be three major divisions of study: Teaching the Historical background, including an extensive understanding of Vietnamese history; Clashes in Culture: with a focus on contrasting the cultural heritages of both American and Vietnamese participants; and discussing the legacies or consequences the war has had on shaping contemporary issues are the foundations for this course. Prerequisite: Written permission of the instructor.

**GED 553 Childhood Literacy: Integrating Reading and Writing with Content (3)** Guided by the NYS Standards, the purposes of this course are: to study reading and writing processes and how they are related, and to develop effective instructional strategies and programs that integrate and enhance children's reading and writing abilities in all areas of content.

**GED 554 Literature in Early Childhood (3)** This course will provide pre-service teachers with greater knowledge of the literature for

younger children (Birth–8 years). It will build on GRED 581 and provide beginning teachers with further methodologies and strategies for the utilization of literacy in the different content areas of the curriculum. Prerequisite: GRED 581.

**GRED 555 Classroom Management/Leadership: Middle/Secondary School (3)** This course is designed to develop the skills necessary to manage student behaviors in the classroom. The focus will be on effective practices and techniques for behavior management and discipline. Participants will be provided opportunities to practice different approaches through various activities. Current issues and problems will be discussed. Secondary Education students only.

**GRED 556 Reading and Literacy in Middle and Secondary School I (3)** Teaching literacy skills in reading, writing, speaking, listening and study skills in regular secondary school content areas to native English speakers and students who are English language learners. Includes practicum experience. Offered summer.

**GRED 557 Reading and Literacy in Middle and Secondary School II (3)** Continuation of GRED 556. Refines knowledge and provides opportunities for classroom application of methodologies required to teach literacy to native and reading to non-native English speakers. Addresses current issues of reading, writing, listening, and speaking skills, and study skills confronting secondary content area teachers. Participation with secondary school pupils. Prerequisite: SECD 356 or GRED 556. Fall only.

**GRED 558 Literacy I: Methods–Childhood (3)** This course is designed for the elementary pre-service teacher who will be responsible for teaching literacy in grades 1–6. It is assumed that persons enrolled in this course know little or nothing about the theories of reading and other literacy skills development. With this assumption in mind, this course will be geared to teaching pre-service teachers the “whys” and “hows” of teaching reading, writing, listening, and speaking to children. Offered summer, fall and spring.

**GRED 559 Literacy II: Methods–Childhood (3)** This course is designed to help pre-service teachers understand and define the various components of a “balanced” literacy program for children in grades 1–6. Using quality children’s literature, pre-service teachers will be expected to design and implement balanced literacy instruction in a classroom setting. Pre-service teachers will also be expected to use various forms of assessment to measure the success of their instruction as well as individual progress in literacy development. Offered fall and spring.

**GRED 564 Practicum: Early Childhood Experience (3)** The pre-service teacher will be provided supervised classroom experience at three different levels: Birth–4 years, Kindergarten, and 1 and 2 grades. Participation will involve working with all aspects of early childhood curriculum. Particular emphasis will be placed on the application of learning theory, curriculum development, assessment, and implementation.

**GRED 565 Elementary Mathematics: Content and Methods (3)** Teaching mathematics effectively at the elementary level requires much more than the ability to “do” mathematics. The teacher must have a deep understanding of the concepts behind the mathematical skills being taught and must be able to present these concepts in a variety of ways. This course will help elementary school teachers develop their own understanding of the mathematics, as well as explore strategies and models for teaching mathematics at the elementary level. A field experience is also required. Offered fall and spring.

**GRED 566 Elementary Science: Content and Methods (3)** Develops competency in teaching science to elementary-age school children. Emphasizes importance of science education as foundation of elementary curriculum. Examines scientific method. Includes observation/participation in elementary classroom. Offered fall and spring.

**GRED 567 Elementary Social Studies: Content and Methods (3)** This

course examines the contributions of social studies to the elementary school program. It also examines a variety of methods and materials appropriate for use in instruction in elementary school social studies. The course includes major definitions and structures of the social science disciplines (anthropology, economics, geography, sociology, and political science) and history; the roles of both funded knowledge and conventional wisdom in elementary school social studies curriculum development, the various components of instructional planning in social studies; and evaluation in social studies of elementary school pupil performance. Appropriate field experiences are determined by the instructor. Offered summer, fall and spring.

**GRED 568 Teaching Mathematics in the Middle School (3)** This course will introduce students to current research and issues related to teaching mathematics in the middle school. They will learn how to provide learning experiences, including interdisciplinary experiences, and create assessments that are developmentally appropriate for middle level students. Preservice teachers will learn how to engage middle school students in meaningful mathematics, work with middle school students who are not meeting minimum standards and prepare middle school students for the abstract world of high school mathematics. They will become knowledgeable about the current NYS Learning Standards for Mathematics Science and Technology and the NCTM Standards. This will include how to integrate mathematics with other disciplines. Students will concurrently take GRED 578. Offered summer.

**GRED 569 Teaching Mathematics in the Secondary School (3)** This course will introduce students to current research and issues related to teaching mathematics in grades 9–12. The students in this course will learn how to engage high school students in meaningful mathematics and how to work with high school students who are not meeting minimum standards. They will prepare high school students to use mathematics as an everyday citizen and to move successfully into programs that require the study of mathematics at the college level. Students in this course will become knowledgeable about the current NYS Learning Standards for Mathematics, Science and Technology and the NCTM Standards. Students will concurrently take GRED 579. Offered fall.

**GRED 571 Science Education Instruction in the Secondary School (3)** This course begins with an introduction to the national science education teaching and assessment standards for junior high and high school. Topics include cooperative learning in the science classroom, student-centered learning environments, project-based teaching, and assessment of science knowledge and skills. Students will apply their knowledge to strategies of instruction as they teach the science unit that they develop in GRED 561. Prerequisite: GRED 561. Fall only. MST only.

**GRED 574 Navajo Cultural Exchange Program (3)** The Navajo Cultural Exchange Program is designed as a three-week seminar-workshop introducing participants to Native American Cultures of the Desert Southwest. The program will consist of three, 3 hour classroom workshops at SUNY Potsdam prior to leaving for Arizona. This part of the program will offer to SUNY Potsdam preservice teachers a workshop specifically designed to introduce them to the complexities of teaching culturally diverse students in a public school environment. In addition, a visit to the Navajo, Havasupai, and Hopi reservation lands in Arizona will offer the participating students, regardless of their major, the opportunity to interact with, tutor, learn from and assist Navajo educators, students and families. This will occur on reservation lands in northeastern Arizona, in both elementary and secondary public schools as well as on private lands of Navajo families on the reservation. Prerequisite: Written permission of instructor. Offered summer.

**GRED 576 Practicum I (3)** This practicum is designed for the prospective teacher in pre-service training who is interested in teaching English in a country where English is not the primary language in grades K through 12. This practicum is to help the prospective teacher experience “teaching situations” which are believed to have four crucial features

such as 1) teacher, 2) learner, 3) subject matter, 4) a social and physical context. MSED General Professional Education international students only. Offered fall.

**GRE 577 Early Childhood Development and Learning (3)** This course provides an introduction and overview of current theories in early childhood development. It profiles the characteristics and needs of young children and focuses on developmentally appropriate practices in physical and motor, psychosocial, cognitive and language development for ages birth to eight. Strategies for learning assessment and evaluation also will be examined. Offered spring.

**GRE 578 Practicum in Middle School Mathematics (2)** Students will observe, tutor and teach mathematics in a middle school (grades 5–6). Offered summer.

**GRE 579 Practicum in Secondary School Mathematics (2)** Students will observe, tutor and teach mathematics in a secondary school (grades 9–12). Offered fall.

**GRE 581 Language, Literature and Emergent Literacy (3)** The purpose of this course is to provide students with knowledge of language development and the process of emergent literacy. It will prepare pre-service teachers with an understanding of the foundations of literacy and the learning principles and instructional strategies necessary to provide literacy instruction to emergent, novice, and transitional readers and writers. It will also develop knowledge of literature for younger children (Birth–8 years) as well as methodologies and strategies for utilizing literature to teach literacy in content areas of the curriculum. Offered summer (odd years), fall and spring.

**GRE 582 Teaching Writing, Language and Communication, Grades 7–12 (3)** This course extends study in GRE 550, Introduction to Teaching English Language Arts, Grades 7–12 with special focus on teaching: 1) writing, 2) language studies (including grammar and linguistics), and 3) communication (including speaking, listening, mass media, and non-print texts.) Based on state and national standards, focused studies will include how to integrate teaching, learning, and curriculum in the area of study with all literacy skills of reading, writing, speaking, and listening. (For example, when studying the teaching of writing, we will also explore how to integrate writing instruction with the teaching of reading, speaking, and listening.) This course will examine how to conduct and construct formative and summative assessments of student learning and methods and procedures for sharing this information with students, parents, the school, and the larger community. Students will also examine media and technology applications, resources, software and non-print “texts” for teaching writing, language, and communication. Prerequisite: GRE 550 and GRE 592. Co-requisite: GRE 584. MST students only. Spring only.

**GRE 584 Teaching Literature and Literacy, Grades 7–12 (3)** This course extends study in GRE 550 Introduction to Teaching English Language Arts, Grades 7–12 with special focus on teaching literature and reading. Based on state and national standards the course will examine: 1) how to integrate study of literary genre and “texts” [including, non-print texts such as film, media, arts, visual literacy, etc.]; 2) how to evaluate and select literature for secondary ELA curricula; 3) how to integrate the study of literature with the teaching of reading (including strategies for assessing reading skills, teaching reading comprehension and layered reading, constructing meaning, language and vocabulary development, study skills, etc.); 4) how to integrate the teaching of literature and reading with other literacy skills of writing, speaking, and listening; and, 5) how to conduct and construct formative and summative assessments of student learning and methods and procedures for sharing this information with students, parents, the school, and the larger community. Prerequisite: GRE 550 and GRE 592. Co-requisite: GRE 582. MST students only. Spring only.

**GRE 586 Practicum II (3)** This practicum is designed to have students focus on making systematic observations that help to study and analyze the teaching-learning environment in a systematic and objective fashion. With systematic classroom observation, each student is required to

produce an acceptable paper which describes and explains the standard skills for all teachers perceived in the classroom which are divided into five areas such as: Classroom Environment, Preparation for Instruction, Interaction with Students, Management of the Learning Environment, and Professionalism. MSED General Professional Education international students only. Offered spring.

**GRE 587 Leadership in Communities of Learners (3)** By the end of this course, participants will be able to identify and describe elements of organizational culture in learning communities and related roles of leadership. Organizational culture includes policies and practices that oppress individuals and groups on the basis of socio-economics, race, ethnicity, language, learning styles, gender, sexual orientation, and/or disability. Participants will explore, develop, and apply strategies and skills related to transforming schools in ways that serve the interest of all individuals and groups within a community of learners. Prerequisite: GRE 600, or GRE 607, or GRE 634, or student teaching, or permission of the instructor(s).

**GRE 592 Practicum: Teaching English Language Arts in Secondary School (3)** Students will observe, tutor, and teach in secondary English Language Arts classrooms, grades 7–12. Three consecutive days per week is allotted so that students have ample opportunity to become a part of the teaching and learning community. 100 clock hours of field-based experience required for certification. Co-requisite: GRE 550. MST students only. Offered fall.

**GRE 594 English Language Arts Practicum Seminar (3)** This course will focus on reflective teaching practices through examination of students’ experiences in teaching and learning in the field-based practicum. The course will also include study and discussion of classroom management and behavior; professional roles and responsibilities; interdisciplinary/interdepartmental connections; teaching in diverse and inclusive classrooms; working with other members of the school community, including parents, administration, and the community; and, school reform and re-structuring. Prerequisites: GRE 550, GRE 582, GRE 584. Co-requisites: GRE 592. Offered fall.

**GRE 595 Special Topics (1–6)** Workshops, seminars and/or institutes designed to meet special needs of school systems, groups of teachers, or others interested in graduate-level study in the field. Offerings available upon announcement by the School of Education and Professional Studies. Credit earned may be applied, under advisement, as electives in Master of Science in Education/Master of Science in Teaching degree programs.

**GRE 600 Philosophical Foundations of Education (3)** This course examines the contribution of leading educators from Ancient Greece to the present. Students will be encouraged to examine their own philosophical beliefs and how they are applied to improving classroom teaching. Offered summer, fall and spring.

**GRE 603 Seminar: Teaching in the Secondary School (3)** This course is designed to provide the student with an understanding of the principles, concepts and methods involved in teaching. The focus will be on the learning process, curriculum development, instructional strategies and materials, planning, grouping, classroom management, evaluation, and drug education. Offered summer and fall.

**GRE 606 Advanced Secondary Social Studies Education (3)** Examines curriculum and instruction in secondary school social studies. Attention is given to national projects, recent developments at the state level, and selected locally designed curricula. Selected aspects of secondary social studies instruction are analyzed: inquiry, use of primary sources, structures of social science disciplines, cross-cultural comparisons, simulation games and programmed instruction. Prerequisite for MST students: GRE 681/688. Prerequisite for BA/MST students: SECD 373/GRE 688. Offered summer.

**GRE 606E Advanced Economics Instruction (3)** Examines curriculum and instruction in secondary school Economics. Attention is given to international and national projects, recent developments

at the state level, and selected locally designed curricula. Selected aspects of secondary economic instruction are analyzed; Inquiry, use of primary sources, structures of the discipline of Economics, cross-cultural comparisons, simulation games and programmed instruction. Prerequisites for MST students: GRED 681/GRED 688E; Permission of instructor. Summer only.

**GRED 606G Advanced Secondary Geography Instruction (3)** Examines curriculum and instruction in secondary school Geography. Attention is given to international and national projects, recent developments at the state level, and selected locally designed curricula. Selected aspects of secondary geography instruction are analyzed: inquiry, use of primary sources, structures of the discipline of geography, cross-cultural comparisons, simulation games and programmed instruction. Prerequisites for MST students: GRED 681, GRED 688G. Permission of instructor. Summer only

**GRED 606H Advanced Secondary History Instruction (3)** Examines curriculum and instruction in secondary school History. Attention is given to international and national projects, recent developments at the state level, and selected locally designed curricula. Selected aspects of secondary history instruction are analyzed: inquiry, use of primary sources and documents, structures of the discipline of History, cross-cultural comparisons, simulation games and programmed instruction. Prerequisite for MST students: GRED 681/GRED 688H. Permission of the instructor. Summer only.

**GRED 606P Advanced Secondary Political Science/Government Instruction (3)** Examines curriculum and instruction in secondary school Political Science/Government. Attention is given to international and national projects, recent developments at the state level, and selected locally designed curricula. Selected aspects of secondary Political Science/Government instruction are analyzed: inquiry, use of primary sources and documents, structures of discipline of Political Science/ Government, cross-cultural comparisons, simulation games and programmed instruction. Prerequisite for MST students: GRED 681/GRED 688P; Permission of the instructor, Summer only.

**GRED 607 Foundations of Education – Birth–Grade 6 (3)** This course is designed to provide students with an overview of the philosophical basis of early childhood and elementary education and a historical outline of the field. It prepares future teachers for a variety of roles and professional responsibilities. It also provides an overview of curricular issues such as the goals of education, learning theories, and teaching and assessment strategies. Offered summer, fall and spring.

**GRED 608 Advanced Secondary Mathematics Education (3)** Participants will become familiar with the most recent literature on teaching and mathematics; the organization and structure of professional organizations, the nature of research in mathematics education; goals, strategies, research and standards for the teaching of mathematics. Offered fall (odd years).

**GRED 609 Advanced Secondary English Education (3)** The student reads in-depth and applies in practical ways materials related to the teaching of the nature of language, literature, and oral and written discourse. The student writes an extended and complete program of instruction (either a unit of instruction or a self-instructional program) suitable for a given level of secondary students. Offered summer.

**GRED 610 Advanced Secondary Science Education (3)** This course explores alternatives in science teaching methods, including the historical, contemporary and experimental. Considers special techniques for demonstration, field and laboratory and special learning situations, including criteria for slow and accelerated learners. Provides an opportunity for the student to develop his or her own teaching style reflecting techniques he or she has determined to be effective. Prerequisite for MST students: GRED 672. Offered summer.

**GRED 611 Foundations of Modern Education – Birth–Grade 2 (3)** This course explores historical and philosophical development in early childhood and the philosophy of various early and contemporary early

childhood leaders. Various early childhood programs will be researched, discussed and compared. During the semester, each student will be required to develop a personal philosophy of education. It prepares teachers for a variety of roles and professional responsibilities. It also provides an overview of curricular issues such as learning theories as well as teaching and assessment strategies.

**GRED 613 Teaching Internship, Grades 1-3 (6)** This course provides the student teacher with a time and place where the theory of coursework at the College can be put into the actual practice of teaching. The course is designed to focus the student teacher's attention on the complete range of teacher functions and responsibilities found within a real school setting, including immersion in curriculum and long range planning, such as units. The internship provides the student with the opportunity to apply constructivist approaches in the teaching/learning setting. (MST elementary students only: Co-requisites: GRED 676 and GRED 696.)

**GRED 616 Curriculum and Evaluation (3)** Examination of basic elementary curriculum and evaluation concepts, principles and practices, including funded knowledge and conventional wisdom, aims and objectives; the cognitive, affective and psychomotor taxonomies; curriculum design, standardized and informal assessment. Special attention will be given to New York State requirements with respect to curriculum design and evaluation. Offered summer and fall.

**GRED 618 Curriculum and Evaluation in Middle and Secondary Schools (3)** Curriculum and evaluation concepts, principles, and practices in middle school and secondary school, including funded knowledge and conventional wisdom, aims and objectives, the cognitive, affective, and psycho-motor taxonomies; interrelationships among curriculum development, instructional design, and evaluation; models and methods of assessment and evaluation.

**GRED 623 Reflection and Inquiry in Teaching Secondary English Language Arts (3)** This course will encourage participants to think about and reflect on the design and implementation of instruction that is appropriate to the schools, students and communities in which they will work. It will help participants develop and reflect on essential questions that arise in the teaching of secondary English in order to create lessons, units and activities that will help answer those essential questions while incorporating district, state and national standards (NCTE, INTASC, NCATE) and the SUNY Potsdam Teacher Education Curriculum Framework. Prerequisite: GRED 660.

**GRED 626 Zebra Stripes and Learning Types (3)** The purpose of this course is to: 1) examine the accepted theoretical concepts put forth by psychologists and pedagogical experts today; 2) discuss and define how various learning style concepts and/or models impact on the teacher, the student, the administrator, and the curriculum; 3) design instructional strategies that provide for the individual learning styles of students. Offered summer.

**GRED 634 Philosophical Foundations of Curriculum and Instruction (3)** This course is designed to provide students with an overview of the philosophical basis of early childhood and elementary education. It examines the contribution of leading educators from Ancient Greece to the present. Students will be encouraged to examine their own philosophical beliefs and how they are applied to improving classroom teaching.

**GRED 635 Educational Research in Curriculum and Instruction (3)** This course is designed to meet the needs of early childhood and elementary classroom teachers. The fundamentals of research design, data analysis and evaluation are studied. Teachers become informed consumers of educational research and learn to conduct research in a number of environments including their own classrooms.

**GRED 646 Assessment, Evaluation and Reporting Progress of Young Children with Disabilities (3)** Teachers of young children need a clear understanding of the purposes and methods of assessing children with special needs and their progress from an ecological perspective. This understanding will enable early childhood educators of children with disabilities to develop, implement, and evaluate effective instructional

programs to enhance the development of competence in infants and young children with disabilities. The course will provide the teacher with the knowledge to plan assessments for the purposes of identification and diagnosis, program planning, and program evaluation for infants and young children with disabilities. A pre-requisite to this course is successful completion of GRED 521 and GRED 648. Offered fall.

**GRED 660 Educational Research (3)** This is a basic course designed to provide the graduate student of education with the knowledge and analytical skills needed to: 1) understand and critically evaluate reports of research; 2) ask and attempt to answer questions in ways that are likely to increase the accuracy and validity of one's answers. Offered summer, fall and spring.

**GRED 661 Readings in Social Studies Education (3)** Readings, analyses, and discussions of selected articles and books in history, historiography, the social sciences and contemporary social commentary which will be of interest and use for teachers of social studies, K–12. The selections will be primarily publications of the post-World War II period. Some will vary each semester. Emphasized will be the selections' usefulness as background readings for teachers of social studies. Participants' comprehension of underlying considerations of contemporary social, economic, political, global, and environmental issues or topics will be enhanced. Appropriate discussion techniques and critical thinking skills for the social studies lesson or classroom will be discussed and modeled. Offered spring (even years).

**GRED 664 Practicum in Childhood Education (3)** The future childhood teacher will be provided supervised classroom experience. This practicum (at least 100 hours in the field) will involve working with all aspects of childhood curriculum. Particular emphasis will be placed on application of learning theory plus curriculum development, assessment and implementation. Offered fall and spring.

**GRED 665 Language and Culture (3)** This course is designed for the prospective teacher in pre-service training who is interested in teaching English to students in a country where the primary language is not English in grades K through 12. The course is geared to teaching language in cultural context with a focus on "Proficiency-Oriented Instruction". MSED General Professional Education international students only. Offered spring.

**GRED 667 Topics and Research in Mathematics Education (3)** Designed as a capstone course, for the secondary mathematics education masters degree programs, this course will allow students to review the research on a current issue related to secondary mathematics. They will develop and present a research proposal. Students will also finalize their teaching portfolio as part of this course. Offered summer.

**GRED 668 Professional Portfolio Development (1)** Before graduating, each student is required to complete a professional development performance portfolio (PDPP). This portfolio will demonstrate students' progress and development over the tenure of their pedagogical preparation. The PDPP is a collection of select artifacts and reflections that represent pre-service teachers' experiences, knowledge, and growth during the pre-student teaching and teaching experience. This requirement fulfills the culminating experience requirement.

**GRED 669 Professional Development Performance Portfolio (3)** The Developmental Performance Portfolio (DPP) is an intentional grouping of artifacts that are reflective of the INTASC Standards that demonstrates the pre-service teacher's progress and growth over the tenure of his/her pedagogical preparation. There should be evidence of achievement and reflection on the achievement. The DPP is a collection of select artifacts and reflections that represent the pre-service teacher's experiences. The artifacts will include samples of work completed during the program that represent the pre-service teacher's experiences, knowledge and growth and samples of work from pre-student teaching and student teaching experiences. The DPP should prompt reflective thinking in the knowledge and skills determined by INTASC Standards by providing documented evidence of accomplishments. Fulfills the Culminating Experience requirement. Offered fall and spring.

**GRED 670 Culminating Experience (Project) (Maximum of 3)** The project may be an electronic or paper portfolio; a thesis; an empirical or library research project; a historical or philosophical study; a descriptive analysis; a curriculum design; a slide presentation; a module cluster; or something else of particular use to the student. The project must be related to and draw from the student's graduate program. Prerequisite: Full Admission in an MSED or MST degree program. (Graded S\*/U\* only.)

**GRED 671 Developing a Professional Teaching Portfolio (3)** The Professional Development Performance portfolio (PDPP) is an intentional grouping of work that shows the pre-service teacher's progress in professional growth over time. There should be evidence of achievement and reflection on that achievement. The PDPP should be a collection of select artifacts and reflections that represent the pre-service teacher's experiences, knowledge and growth during the pre-student teaching and student teaching experience. The PDPP is considered a work in progress and should prompt reflective thinking in the knowledge and skills determined by the faculty by providing documented evidence of accomplishments. Fulfills culminating experience requirement for MST Secondary English Degree. Offered spring.

**GRED 672 Science Curricula, Programs and Standards (3)** This course is designed to introduce future teachers to school science curricula and programs in grades 7–12. Students will be made aware of current trends in science education as defined by the New York State Department of Education, the National Science Education Standards, Project 2061, and NSTA's Science Scope and Sequence Project. This course will integrate study of educational technology with the study of curricula and programs. Offered fall.

**GRED 673 Secondary Science Field Work (3)** Field experience provides opportunity to apply what has been learned in a classroom setting, and to develop the skills and understandings necessary for student teaching. The guidelines (principles, teaching, assessment, content, program evaluation, school system evaluation) for this field experience are provided in the National Science Education Standards ([www.nap.edu/readingroom/books/nses/html](http://www.nap.edu/readingroom/books/nses/html)). You will be assigned to a mentor teacher during the first week of the course. You will develop a secondary science unit plan with advisement of the course instructor and your mentor teacher. Beginning in week two, you will observe and assist in the classroom of your mentor teacher for a minimum of seven hours each week in the public school. Beginning in week four and for the duration of the semester you will continue to observe and assist for six hours per week and will teach a minimum of one hour per week. Your teaching will begin with small groups, and progress to whole class groups. You will have opportunity to reflect on your teaching experiences in discussions with mentor teachers, peers, and the course instructor. Discussions will focus on specified topics drawn from the National Science Education Standards and the New York State Math, Science, Technology Standards. Discussions will occur in class sessions on Wednesday's and in the on-line discussion forum provided in the Blackboard class space. The distance learning class space will include mentor teachers. Field experience provides the major setting for Performance Based Assessments required in your teacher education program portfolio. Rubrics for Performance Assessments of Knowledge, Skills and Dispositions contained in the NSES will be provided at the beginning of the course and will be the focus of course activities. Offered fall.

**GRED 674 Culminating Experience/Thesis Research (3)** This course is designed to help the student in planning his or her "Culminating Experience" under the supervision of his or her graduate advisor. For this exit requirement project, the student should be able to complete his or her work relative to "Teaching English as a Second/Foreign Language" or "English-Korean Bilingual Education". The project should include appropriate aspects of previously completed SUNY Potsdam course work and must have written documentation.

**GRED 675 Secondary Science Teaching Research (3)** This course is designed to introduce future teachers to science education research

in grades K–12. Students will study current issues and trends in science education research, and relate those to local school issues. Students will design and defend a research proposal linking their study of national issues and trends with observations in local schools.

**GED 676 Student Teaching Seminar: Policies and Practice in American Education (2)** The course will provide a forum for discussion of the broad range of contemporary educational and professional issues, as well as their historical routes. Students will critically examine various perspectives of a topic through reading and research. Co-requisites: MST Elementary: GRED 613 and GRED 696; MST Secondary: GRED 692 or GRED 694 and GRED 697.

**GED 677 Development and Learning in Adolescence (3)** This course is designed to provide classroom teachers with a sufficient understanding of the principles and theories of both learning and human development to be better able to plan and carry out instruction. MST Adolescence only. Offered summer.

**GED 679 Student Teaching Seminar: Issues and Ideas in Early Childhood Education (1–2)** This course will provide a forum for discussion of the broad range of contemporary educational and professional issues in Early Childhood Education. Each seminar will have a portion of time set aside to examine a specific topic for discussion and research. A portion of each seminar will also consist of dialogue related to field assignments

**GED 681 Social Studies Curriculum in Middle/Secondary School (3)** Introduction to the social studies curriculums of middle and secondary schools. Defines and analyzes the processes and products of funded knowledge and conventional wisdom, curriculum development, curriculum, instructional planning, instructional plan, instruction, and evaluation, as they are used in social studies. Also examines the interrelationships of these eight. Emphasizes concepts, their definitions, their uses, and their roles in social studies. Examines the substantive and syntactical contributions to social studies of the disciplines of anthropology, economics, geography, history, sociology, and political science. Studies definitions of citizenship; the roles of controversial issues in social studies; and the changing definitions of social studies. Offered summer.

**GED 682 Research in Social Studies Education (3)** Review of selected research in middle and secondary school social studies education. Prerequisite: GRED 681, 688, and 606. Offered fall.

**GED 688 Social Studies Instruction in Middle/Secondary School (3)** Introduction to methods and materials of instruction and evaluation in social studies in the middle and secondary schools. Analyses and practice in the development of lesson plans; the designing of social studies aims and objectives; the specific levels of the cognitive and affective domains; and the evaluation of learning and of teaching including tests and other means of assessment. Prerequisites: full admission into the MST or BA/MST Program (including all required undergraduate courses). For MST students only – GRED 681. For BA/MST students only – SECD 373. Co-requisite: GRED 689. Offered fall.

**GED 688E Economics Instruction in Middle/Secondary Schools (3)** Introduction to methods and materials of instruction and evaluation in Economics in the middle and secondary schools. Analyses and practice in the development of integrated inquiry and issues based lesson plans designed to teach standards based Economics; the designing of goals and objectives; the specific levels of the cognitive and affective domains; and the evaluation of learning and of teaching including tests and other means of assessment. Prerequisites: Full admission into the MST program (including all required undergraduate courses). For MST students only. Prerequisite: GRED 681. Permission of instructor. Offered fall.

**GED 688G Geography Instruction in Middle/Secondary Schools (3)** Introduction to methods and materials of instruction and evaluation in Geography in the middle and secondary schools. Analyses and practice in the development of integrated inquiry and issues based lesson plans designed to teach standards based geographic literacy; the designing

of goals and objectives; the specific levels of the cognitive and affective domains; and the evaluation of learning and of teaching including tests and other means of assessment. Prerequisites: Full admission into the MST program (including all required undergraduate courses). For MST students only. Prerequisite: GRED 681. Permission of instructor. Offered fall.

**GED 688H History Instruction in Middle/Secondary Schools (3)** Introduction to methods and materials of instruction and evaluation in History in the middle and secondary schools. Analyses and practice in the development of integrated, inquiry and issues based lesson plans designed to teach standards based historical literacy; the designing of goals and objectives; the specific levels of the cognitive and affective domains, and the evaluation of learning and of teaching including tests and other means of assessment. Prerequisites: Full admission into the MST Program (including all required undergraduate courses). For MST students only. Prerequisite: GRED 681. Permission of instructor. Offered fall.

**GED 688P Political Science/Government Instruction in Middle/Secondary Schools (3)** Introduction to methods and materials of instruction and evaluation in Political Science and Government in the middle and secondary schools. Analyses and practice in the development of integrated inquiry and issues based lessons designed to teach standards based Political Science and Government; the designing of goals and objectives; the specific levels of the cognitive and affective domains; and the evaluation of learning and of teaching including tests and other means of assessment. Prerequisites: Full admission into the MST Program (including all required undergraduate courses). For MST students only. Prerequisite: GRED 681. Permission of instructor. Offered fall.

**GED 689 Practicum in Middle/Secondary School Social Studies Instruction (3)** Students will observe and instruct social studies in the middle and secondary school. Prerequisites: permission of the instructor. Co-requisite: GRED 688. Offered fall.

**GED 690 Special Social Studies Education Content Topic (3)** Examination of a special topic in social studies education. The special topic may vary each semester. Emphasis is on the content area of the special topic and on curricular, instructional, and evaluation considerations for middle and secondary school learning/teaching in social studies. Field trips may be required. Prerequisite for MST students: GRED 681, GRED 688. Prerequisite for BA/MST students: SECD 473 or GRED 688.

**GED 691 Student Teaching in Early Childhood Education (6–12)** This course provides the future early childhood teacher with a time and place where theory of coursework at the College can be put into the actual practice of teaching. Experience will include three different placements in the following: Birth–4 years, Kindergarten, and grades 1 and 2. This course is designed to focus the future early childhood teacher's attention on the complete range of teacher functions and responsibilities found in authentic early childhood settings.

**GED 692 Student Teaching: Jr. High 7–9 (6)** This course will consist of a semester of field experience in a public school setting. Students will be assigned to a Grades 7–9 experience over the course of half a semester. Students are expected to demonstrate skills in defining educational objectives, developing learning experiences, selecting educational materials and assessing/evaluating pupil performance. MST only. Co-requisites: GRED 676, GRED 697.

**GED 693 Supervised Clinical Experience/Student Teaching, Grades 10–12 (6)** Students will be assigned to a Grades 10–12 experience in a public school setting over the course of half a semester. Students are expected to demonstrate skills in defining educational objectives, developing learning experiences, selecting educational materials and evaluating pupil performance. MST only. Co-requisites: GRED 692 and GRED 676.

**GED 694 Student Teaching in the Middle/Junior High School (6)** Half semester of student teaching in the student's certification program in grades 5, 6, 7 and/or 8, under the guidance of a sponsor teacher and

a college supervisor. For MST & BA/MST secondary students only. Co-requisites: GRED 676 and GRED 697.

**GRED 695 Special Topics (1–6)** Workshops, seminars, and/or institutes designed to meet special needs of school systems, groups of teachers, or others interested in graduate level study in the field. Offerings available upon announcement by the School of Education and Professional Studies. Credit earned may be applied, under advisement, in Master of Science in Education degree programs. For further information relative to special offerings, consult with the department chair or graduate advisor.

**GRED 696 @Student Teaching: Childhood Education 1–6 (6)** This course provides the student with the initial opportunity to student teach in the public school setting. Students are assigned to an elementary classroom in which the induction process leads to full teaching responsibilities under the direction and supervision of a sponsor teacher and college supervisor. Students are expected to demonstrate skills in defining educational objectives, developing learning experiences, selecting educational materials, and evaluating pupil performance. For MST students only. Co-requisites: GRED 613 and GRED 678.

**GRED 697 @Student Teaching Sr. High 10–12 (6)** This course will consist of a field experience in a public school setting. Students will be assigned to a secondary experience over the course of half a semester. Students are expected to demonstrate skills in defining educational objectives, developing learning experiences, selecting educational materials and assessing/evaluating pupil performance. For MST and BA/MST students only. Co-requisites: GRED 692 or GRED 694 and GRED 676.

**GRED 699 Thesis Research (3)** The thesis topic is selected by the student according to his or her interest, with the approval of his or her graduate advisor and thesis committee. An oral defense of the thesis is required. The original typescript of the final document, presented in standard thesis format, becomes part of the holdings of the School of Education and Professional Studies. Offered summer, fall and spring.