and their own background experiences. In addition to observing teaching practices and curriculum, candidates will consider issues of power, politics, equity, and equality. Candidates will begin to develop skills using the analytic tools of the discipline by collecting field notes from observation and teaching experiences and using them to develop an analysis linked to the content and pedagogical knowledge base that they bring to the field. Prereq. Concurrent registration with EDU 501. F, Sp. 1sh.

ADO 533 Field Experience: Discipline Specific: Math
Teacher candidates observe, participate, and teach mini-lessons in discipline specific classrooms guided by experienced cooperating teachers and college supervisors in order to acquire an understanding of the relationships among diverse learners, teachers, schools, and curricula. Prereq. Concurrent registration with ADO 530 F 2sh.

SPE 593 Field Placement III: Small Group Instruction in Inclusion Classrooms
This course provides candidates with the opportunity to work with middle school students with a wide-range of learning styles and abilities. This course is completed with cooperative supervision from the college and the field-based institution. Prereq. Concurrent registration with LIT 513. F, Sp, 1sh.

ADO 525 Student Teaching
This is one of two culminating courses of the MSED Adolescence 7-12 Certification program. It provides the candidates with the opportunity to integrate content knowledge and practice to promote authentic learning for all students in a setting appropriate for the NYS initial teaching certificate. This course is completed with cooperative supervision from the college and the field-based institution. Prereq. Concurrent registration with ADO 526 and MAT 509 F, Sp. 6sh.

ADO 526 Cross-Cultural Student Teaching
This is one of two culminating courses of the MSED Adolescence 7-12 Certification program that leads to NYS initial certification. It provides the candidate with the opportunity to integrate content knowledge and practice to promote authentic learning for all students in a cross-cultural or high needs school setting. This course is completed with cooperative supervision from the college and the field-based institution. Prereq. Concurrent registration with ADO 526 and MAT 509. F, Sp. 6sh.

Required Mathematics Content Courses

MAT 504 School Algebra from an Advanced Viewpoint
This course examines the mathematical foundations of secondary school arithmetic and algebra, including theory, problems, and ideas for classroom teaching. Properties of operations; functions, the rationals, reals, integers(mod p), and complex numbers as fields, integers and polynomials as integral domains, divisibility, primes, and irreducible polynomials, equations and inequalities, constructible numbers. Prereq. MAT 330 Abstract Algebra or equivalent, 3sh F

MAT 507 Geometry through History
Geometry is studied in its historical and cultural context, with emphasis on proof, problem solving, and the logical structure of geometry. Topics include the emergence of mathematics in ancient civilizations, geometry from Euclid to Hilbert – with the theory of parallels, trigonometry from a historical perspective, and the development of school geometry. Prereq. MAT 347 Analysis A or equivalent, 3sh F

MAT 509 Issues in Teaching Mathematics
This course is taken concurrently with student teaching in mathematics, to include regular meetings and email communications, assigned readings, and writing assignments. Issues arising in student teaching are examined, together with curricular issues and research into the learning of