SUNY Cortland
Mathematics Department
AED 493 & AED 494
Student Teaching: Adolescence Education – Mathematics

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Course Description – AED 493

Seven weeks of full-time teaching supervised by college faculty. H, S, U grades are assigned. Prerequisites: Grade of C or better in AED 492 and consent of department. (7 cr. hrs.)

Course Description – AED 494

Eight weeks of full-time student teaching supervised by college faculty. H, S, U grades are assigned. Prerequisite: Grade of C or better in AED 492 and consent of department. (7 cr. hrs.)

Further Description

Candidates enrolled in both courses will be given a high school placement, and a middle school placement, at least one of which must be in a high-needs district. The placement for AED 493 can fulfill any one of these requirements, as can AED 494.

Required Materials

- *Task Stream subscription.* Available through www.taskstream.com.
- *NYS Learning Standards and Performance Indicators.*
- *Principles and Standards for School Mathematics*, The National council of Teachers of Mathematics, Reston, VA: 2000.
- State University of New York College at Cortland Student Teaching Handbook available at www.cortland.edu/fieldplacement/pdfs/student_teacher_handbook.pdf

Course Attendance Policy:

Student teachers are expected to follow the public school calendar and daily schedule in the districts where they are placed. In the event of an emergency and absence from school, the student teacher must notify the school's main office, the cooperating teacher, and the supervising teacher as soon as possible before the start of the school day. If the student teacher must be absent from student teaching for a scheduled appointment, he/she must complete the "Request for Absence from Student Teaching" and obtain the appropriate signatures from the cooperating and supervising teachers. If a student teacher's absence(s) from student teaching are judged to have diminished the quality of performance, arrangements will be made with SUNY Cortland's Field Studies Office and the host school for an extension of the student teaching placement for the number of days coinciding with the number of days absent.

Expectations

- It is expected that teacher candidates adhere to the academic schedule of the schools in which they are placed.
- It is expected that teacher candidates will keep a journal of their activities while student teaching.
- It is expected that teacher candidates will be assuming the duties of a full-time teacher.
- It is expected that teacher candidates will complete the Impact on Student Learning project during their first placement.

Evaluation

Grades of "H" (honors), "S" (satisfactory), and "U" (unsatisfactory) are given for each placement. Candidates will be evaluated on their success in achieving the goals outlined below. If the cooperating teacher and/or the college student teaching supervisor observe serious deficiencies in performance, the deficiencies will be explained to the student teacher, verbally and in writing. Specific performance goals to improve the performance to an acceptable level will be outlined with the student teacher verbally and in writing. The student teacher will be given a specified period of time to demonstrate improvement in areas of deficiency. If the cooperating teacher and supervising teacher do not consider that sufficient progress is being made in the time specified, the student teacher will be removed from the placement

The student teacher will be removed at any time during a placement when the college supervisor, cooperating teacher, program coordinator or building administrator determines that the student teacher's performance is not satisfactory and that minimal competence cannot be achieved or, in the judgment of these individuals, the student teacher's presence in the classroom is a detriment to the public-school class. In each case, the student teacher will receive a grade of "U" for the student teaching experience. Any student receiving a "U" for a placement must complete a remediation program to address identified deficiencies before being placed back into a classroom (see *Student Teaching Handbook*). A failed student teaching experience may be repeated only once.

In addition to the Student Teaching Mid-Quarter/Final Evaluation Reports (see Student Teaching Handbook), your college supervisor will be submitting a supplementary evaluation report devised by the mathematics department. A copy of this form (SUNY Cortland Mathematics Department Evaluation of Student Teaching) and the associated rubric is attached to this syllabus.

Goals of the Course:

By the end of the student teaching experience, a candidate will have had the opportunity to demonstrate proficiency in their content area and exhibit skill in creating a positive teaching-learning environment. The goals of the teacher preparation program for adolescence education in the mathematics are aligned with SUNY Cortland's Conceptual Framework. The Framework mirrors the standards

established by the Interstate New Teacher Assessment and Support Consortium (INTASC). The Framework states that candidates will:

- Demonstrate a solid foundation in the arts and sciences;
- Possess in-depth knowledge of the subject to be taught;
- Demonstrate good moral character;
- Understand how students learn and develop;
- Manage classrooms structured in a variety of ways to promote a safe learning environment;
- Know and apply various disciplinary models to manage student behavior;
- Apply a variety of teaching strategies to develop a positive teaching-learning environment where all students are encouraged to achieve their highest potential;
- Integrate curriculum among disciplines, and balance contemporary and historical research, theory, and practice;
- Use multiple and authentic form of assessment to analyze teaching and student learning and to plan curriculum and instruction to meet the needs of individual students;
- Promote parental involvement and collaborate effectively with other staff, the community, higher education, other agencies, and cultural institutions, as well as parents and other caregivers, for the benefit of students;
- Demonstrate sufficient technology skills and the ability to integrate technology into classroom teaching/learning;
- Foster respect for individuals' abilities and disabilities and an understanding and appreciation of variations ethnicity, culture, language, gender, age, class and sexual orientation; and
- Continue to develop professionally as reflective practitioners who are committed to an on-going scholarly inquiry.

Since student teaching is the culminating experience of the teacher preparation program, it is expected that candidates will be able to put into practice what they have learned from coursework and practicum/field experiences.

Course Schedule:

Student teachers are expected to be in attendance each day public schools are in session according to the following calendar.

Third Quarter – Placement 1:	January 24 – March 18, 2011
Fourth Quarter – Placement 2:	March 21 – May 18, 2011

Students with Disabilities: If you are a student with a disability and wish to request accommodations, please contact the Office of Student Disability Services located in B-40 VanHoesen Hall or call 607-753-2066 for an appointment. Information regarding your disability will be treated in a confidential manner. Because many accommodations require early planning, requests for accommodations should be made as early as possible.

Academic Integrity: Any form of intellectual dishonesty is self-destructive and an insult to all thinking men and women. The College policy on plagiarism will be strictly adhered to. For a complete explanation of the College's policy governing academic integrity, please refer to the College Handbook.

SUNY Cortland Mathematics Department Evaluation of Student Teaching

Teacher Candidate: _____
Dates Observed: _____
Subject/Grade Level: _____
School Site: _____
College Supervisor: _____

0 = No Evidence 1 = Developing: Describe how the candidate is developing in this area (occasionally, sometimes). 2 = Proficient: Describe specific observable instances. 3 = Exemplary: Describe how the candidate excels in this area (always, consistently, and/or creatively).	Directions for Supervisors: Return this sheet at the end of each Quarter for each teacher candidate that you have.

Models the processes of mathematical problem solving. Evidence/Concerns:	0	1	2	3
Constructs and evaluates mathematical arguments and develops an appreciation for mathematical rigor. Evidence/Concerns:	0	1	2	3
Uses mathematical language and vocabulary precisely and effectively in the classroom. Evidence/Concerns:	0	1	2	3
Makes mathematical connections between key ideas. Evidence/Concerns:	0	1	2	3
Effectively integrates multiple representations (symbolic, numeral, graphical and verbal). Evidence/Concerns:	0	1	2	3
Facilitates mathematical discourse in the classroom. Evidence/Concerns:	0	1	2	3
Selects and uses appropriate instructional resources such as manipulatives and technology to deepen students' mathematical understanding. Evidence/Concerns:	0	1	2	3
Promotes student confidence, flexibility, perseverance, inventiveness in doing mathematics. Evidence/Concerns:	0	1	2	3
Designs and implements learning experiences for diverse student needs intended to develop students' abilities to problem solve, and to discover, evaluate, and communicate mathematics. Evidence/Concerns:	0	1	2	3

Component	Observable Behaviors such as…
Models the processes of mathematical problem solving. *NCTM/NCATE Indicators:* 1.1, 1.2, 1.4, 3.1, 3.3, 3.4,7.2, 8.8	1. Makes problem solving an integral part of the class's mathematical activity by choosing interesting problems that incorporate important mathematical ideas from the curriculum. 2. Helps build students' problem-analysis skills by including tasks that have extraneous information or insufficient information. 3. Challenges students with problems that have more than one answer. 4. Motivates students by encouraging communication and collaboration and by urging students to seek complete solutions to challenging problems. 5. Helps students become reflective problem solvers by frequently and openly discussing with them the critical aspects of the problem-solving process.
Constructs and evaluates mathematical arguments and develops an appreciation for mathematical rigor. *NCTM/NCATE Indicators*: 2.1, 2.2, 2.3, 2.4,7.4, 8.3	1. Promotes the belief that mathematical evidence and argument determines the validity of a mathematical statement. 2. Uses examples and counterexamples to investigate a conjecture.
Uses mathematical language and vocabulary precisely and effectively in the classroom. *NCTM/NCATE Indicators*: 3.1,3.2,3.4	1. Knows and understand the terms used. 2. Uses correct symbolization. 3. Models good literacy pedagogy by <u>not</u> substituting "easier" words for ideas and concept.
Makes mathematical connections between key ideas. *NCTM/NCATE Indicators*: 4.1,4.2,4.3	1. Demonstrates a sound knowledge of mathematical concepts and procedures. 2. Represents mathematics as a network of interconnected concepts and procedures. 3. Emphasizes connections between mathematics and other disciplines and connections to daily lives.
Effectively integrates multiple representations (symbolic, numeral, graphical and verbal). *NCTM/NCATE Indicators*: 5.1, 5.2, 5.3, 7.4, 8.3	1. Helps students organize their thinking. 2. Makes mathematical ideas more concrete. 3. Deepens students' understanding by connecting multiple representations.
Facilitates mathematical discourse in the classroom. *NCTM/NCATE Indicator*: 3.4, 7.3, 7.4, 8.3, 8.7	1. Poses questions and tasks that elicit, engage, and challenge each student's thinking. 2. Listens carefully to students' ideas. 3. Asking students to clarify and justify their ideas orally and in writing. 4. Attach mathematical notation and language to students' ideas when appropriate. 5. Provide appropriate wait time to allow for student responses.
Selects and uses appropriate instructional resources such as manipulatives and technology to deepen students' mathematical understanding. NCTM/NCATE Indicators: 6.1, 7.2, 7.4, 7.6, 8.1, 8.2, 8.9	1. Uses physical and pictorial models when appropriate. 2. Uses technology to encourage exploration and understanding of mathematical concepts, not as a replacement for basic skills.
Promotes student confidence, flexibility, perseverance, inventiveness in doing mathematics. *NCTM/NCATE Indicator*: 3.4, 7.3, 7.4, 8.3	1. Conveys the notion that mathematics is a subject to be explored and created both individually and in collaboration with others. 2. Shows respect for students and their ideas and encourages curiosity and spontaneity. 3. Encourages students to draw and develop their own conclusions.
Designs and implements learning experiences for diverse student needs intended to develop students' abilities to problem solve, discover, evaluate, and communicate mathematical ideas. *NCTM/NCATE Indicators*: 7.1, 8.1, 8.3, 8.7	1. Respects and responds to students' diverse interests and linguistic, cultural, and socioeconomic backgrounds in designing mathematical tasks. 2. Affirms and encourages full participation and continued study of mathematics by all students. 3. Provides and structures the time necessary to explore sound mathematics and grapple with significant ideas and problems.