



New York City College of Technology

The City University of New York

DEPARTMENT: Mathematics

PREPARED BY: Professor Andrew Douglas, Professor Janet Liou-Mark

COURSE: MEDU 4010

TITLE: Supervised Student Teaching and Seminar in Middle School Mathematics

DESCRIPTION: The course consists of a field-based, student teaching experience and a seminar component. The field-based experience involves 20 days or 120 hours of supervised student teaching in grades 7 through 9. Under the guidance and supervision of an experienced teacher and a faculty member, students will implement and refine pedagogical strategies, classroom management techniques, and assessment approaches. The seminar component provides a discussion forum for students, guided by a faculty member, to refine pedagogical strategies, and to address and resolve pedagogical issues that students face during the concurrent field placement.

REFERENCE: Rubenstein, R. N., Beckman, C. E., & Thompson, D. R. (2004). *Teaching and learning middle grades mathematics*. Emeryville, CA: Key Curriculum Press

CREDITS HOURS: 1 class hours, 9 field hours/week, 4 credits

PREREQUISITE: MEDU 3010 and permission of department one semester in advance.

LEARNING OUTCOMES:

For successful completion of the course, students should be able to:

1. Demonstrate mastery of the 7 through 9 grades middle school mathematics curriculum.
2. Create and implement educationally meaningful and relevant lesson plans.
3. Effectively apply verbal, nonverbal and technology-based techniques to foster active inquiry and collaboration.
4. Effectively implement formal and informal assessment strategies.

INSTRUCTIONAL OBJECTIVES AND ASSESSMENT:

INSTRUCTIONAL OBJECTIVES	ASSESSMENT
For the successful completion of this course, students should be able to:	Instructional Activity, Evaluation Methods and Criteria
Plan and implement curriculum and instruction	Supervisor’s Evaluation for Student Teachers Cooperating Teacher’s Evaluation for Student Teachers Portfolio
Manage the classroom learning environment	Supervisor’s Evaluation for Student Teachers Cooperating Teacher’s Evaluation for Student Teachers
Interact with students using different teaching methodologies	Cooperating Teacher’s Evaluation for Student Teachers
Apply teaching and learning theories in practical situations	Cooperating Teacher’s Evaluation for Student Teachers Discussion in seminar Portfolio
Evaluate assessment strategies	Cooperating Teacher’s Evaluation for Student Teachers Discussion in seminar
Develop student activities to foster literacy and communication skills.	Field logs Discussion Forum - Blackboard Discussion in seminar
Identify strengths, and individualize instruction for students with disabilities and special needs.	Field logs Discussion Forum - Blackboard

GRADING PROCEDURE:

- Student teaching portfolio 8%
- Field logs 5%
- Seminar: attendance, punctuality, and classroom participation 3%
- Three written assignments on classroom management, lesson and unit planning, and meeting the needs of all learners 3% each
- Lesson observations by cooperating teacher and faculty member* 75%

* 50% of the final grade will come from observation reports of the cooperating teacher, and 25% of the final grade will be observations from a faculty member.

TEACHING AND LEARNING METHODS:

- Preparation of lesson plans
- Practice of facilitation techniques
- Development of a teaching portfolio
- Discussion in groups
- Brief lectures
- Reflection on practice through field logs and discussions
- Use of Blackboard: discussion forum.

WEEKLY SEMINAR OUTLINE:

For each seminar, students are required to bring an issue, topic or idea to share and discuss with the class. This subject should reflect the pedagogical experiences and issues faced in the concurrent field placement. The class, under the supervision of the instructor, will address these issues and experiences.

In addition to the class discussions initiated from student teaching, the topics outlined in the table below will be examined.

Seminar Session	Topic	Assignments
1	Overview of Supervised Student Teaching	-Sign Student Teaching Contract with cooperating teacher. -Design an activity to collect student information. -Design an introduction letter to students' parents/guardians.
2	Identify strengths, and individualize instruction for students with disabilities and special needs.	-Discuss the variety of disabilities and special needs that teacher are likely to encounter. -Prepare lesson plans and activities consistent with foster the growth of students with the discussed special needs and disabilities.
3,4	Lesson Planning	-Review the principles of creating lesson plans. -Group activity: Construct mathematics lesson plans appropriate for high school students.
5	Classroom Management	-Design student responsibility policy. -Discuss classroom management issues at the high schools that students encountered in their placements and management techniques resolving these situations.
6	Literacy and Communication skills Development.	-Discuss ways to develop literacy and communication skills in the mathematics classroom (e.g., written assignments, writing math in words, learning logs)
7,8,9	Teaching with Technology	-Create activities using graphing calculators, computer algebra systems, and the Geometer's Sketchpad applicable to the high school mathematics curriculum. -Prepare and demonstrate a mini lesson involving technology.
10	Designing Exams	-Analyze exams from students' classroom placements. -Group activity: Create a quiz and a test appropriate for high school mathematics class. Present an assessment measure.
11,12,13,14	Alternative assessment: learning logs, portfolio assessment, performance assessment	-Group Activity: Create a learning log to be used in a high school mathematics class. - Group Activity: Design a lesson plan with a performance assessment.

		-Create (or update) a student teaching portfolio under the guidance of the instructor.
15	Final Class	-Submit student teaching portfolio and field logs.

Additional Resources

1. Artzt, A., & Thomas. (2007). *Becoming a reflective mathematics teacher, 2nd edition*. Routledge.
2. Chappell, M., & Pateracki, T. (2004). *Empowering the Beginning Teacher of Mathematics in Middle School*. National Council of Teachers of Mathematics.
3. Erickson, T., & Craig, R. (2005). *Get it Together: Math Problems for Groups Grades 4-12, 11th Edition*. EQUALS/ Lawrence Hall of science.
4. Malloy, C., & Ellis, M. (2008). *Mathematics for Every Student: Responding to Diversity in Grades 6-8*. National Council of Teacher of Mathematics.