



## Syllabus

### **SCHOOL OF EDUCATION AND LEADERSHIP** **MAT 252: Math for Elementary Teachers**

5 Credits  
Effective: Fall 2017/2018  
Grading Type: Decimal

*Access to the Internet is required.  
All written assignments must be in Microsoft-Word-compatible formats.  
See the library's APA Style Guide tutorial for a list of resources that can help you use APA style.*

## **FACULTY**

Faculty Name: FACULTY NAME

Contact Information: CONTACT INFORMATION

[INSTRUCTOR MAY INSERT PERSONAL MESSAGE IF DESIRED]

## **COURSE DESCRIPTION**

This course focuses on the mathematical content taught in the elementary school. It is not an educational methods course. The course is designed for participants desiring to become elementary teachers and prepares participants with foundation content knowledge for teaching mathematics. The main mathematical topics emphasized in this course are: problem solving, set theory and Venn diagrams, the four fundamental operations of arithmetic, number theory, and fractions, geometry, proportional reasoning, probability, and statistics. Participants complete textbook lessons, write a paper, complete a project, keep a math journal, and take mid-term and final examinations. This course satisfies the mathematics prerequisite requirement for entrance into the Bachelor of Arts in Education program and Masters in Teaching. For teacher candidates; it may be applied towards satisfying the general education requirement in mathematics.

## **COURSE RESOURCES**

Required and recommended resources to complete coursework and assignments are found on the course [Reading List](#). Access is provided through the Reading List link in your online course as well as from the library homepage (“Find Your Reading List” button).

Note: Required resources that must be purchased by the student are tagged “Purchase from a vendor of your choosing.” Required resources with a direct link, “Available through CityU Library”, are available at no cost to students.

Students in Canada will see required resources they need to purchase tagged “Purchase from the Canadian Bookstore.” Students outside the U.S. and Canada should contact their advisor or textbook coordinator for additional information.

## **CITYU LEARNING GOALS**

This course supports the following City University learning goals:

- Professional competency and professional identity

## **COURSE OUTCOMES**

In this course, learners:

- Create learning experiences that make mathematics meaningful to students
- Design appropriate learning activities to engage students in learning
- Develop a relational understanding of mathematics
- Evaluate progress towards becoming confident in your own ability to do mathematics
- Solve problems using mathematical concepts, tools of inquiry, and the structure of mathematics

## CORE CONCEPTS, KNOWLEDGE, AND SKILLS

- Assessment strategies
- Connections among mathematical ideas
- Content area knowledge
- Instructional strategies
- Integrating technology
- Language of mathematics
- Mathematical communication
- Reflective practitioner
- Theory to practice

## OVERVIEW OF COURSE GRADING

The grades earned for the course will be derived using City University of Seattle's decimal grading system, based on the following:

<i>Overview of Required Assignments</i>	<i>% of Final Grade</i>
Participation	10%
Reflective Math Journal	10%
Instructor Determined Assignments	40%
Math Topic Position Paper	10%
Constructivist Math Project	30%
<b>TOTAL</b>	<b>100%</b>

## SPECIFICS OF COURSE ASSIGNMENTS

The instructor will provide grading rubrics that will provide more detail as to how this assignment will be graded.

### Participation

Candidates are expected to participate in class. By participating, candidates will gain knowledge and skills from the instructor, interact with other candidates in class activities, and apply information from the textbooks and supplemental resources. Through active participation in class discussions and assignments, candidates will acquire the knowledge and strategies essential for working with students. Candidates are encouraged to participate in collegial review, giving feedback on content and format to colleagues on designated written assignments.

<i>Components</i>	<i>% of Grade</i>
Leadership and Group Support	40%
Participation During Class Activities	30%
Promptness and attendance	30%
<b>TOTAL</b>	<b>100%</b>

### Reflective Math Journal

Candidates will compile and present a mathematics resource journal for use by candidates when they teach. The journal will reflect logical organization of materials, including all of the areas covered in class and additional curricular materials selected to meet students’.

<i>Components</i>	<i>% of Grade</i>
Quality of Materials	50%
Organization	25%
Content	25%
<b>TOTAL</b>	<b>100%</b>

### Instructor Determined Assignments

Candidates will complete assignments based on the mathematical concepts explored in class; some assignments in class and others outside of class. The course may will include a mid-term and/or final examination as determined by the instructor. These examinations will assess the complete content of the course including assigned readings, lectures, and discussions. The format of the mid-term and final exam may include multiple choice, short answer, and essay items. On the examinations, candidates must demonstrate the ability to understand terms, concepts, and frames of reference from texts, lectures, and other course materials, along with clear understanding of major issues. Candidates can present valid arguments with appropriate supportive detail, use appropriate analysis, synthesis, and evaluation, use proper organization and present a logical flow of response.

During the course, candidates will complete short assignments based on the mathematical concepts explored in class. Some assignments will be completed in class and others will need to be finished outside of class.

<i>Components</i>	<i>% of Grade</i>
Demonstrate Understanding of Concept	50%
Extend Application of Concept	25%
Appropriateness of Response	25%
<b>TOTAL</b>	<b>100%</b>

### Math Topic Position Paper

You will read and study portions of the National Council of Teachers of Mathematics (NCTM) Standards related to school mathematics and the topics covered in Mathematics for Elementary School Teachers (Bassarear, 2001). Then you will select one of the topics listed on the Standards Paper Assignment Sheet and complete a 3- to 5-page paper about the topic. This paper is to be a position paper: you are stating your opinion (thesis) and presenting an argument with evidence from the NCTM Standards to back it up. You will also complete a Math Topic Think Sheet as a pre-writing assignment for this paper. Your Math Topic Think Sheet must be included with the final paper. A rubric for evaluation of the paper is included with the Standards Paper Assignment Sheet.

<i>Components</i>	<i>% of Grade</i>
Organization	15%
Key Topic Support	35%
Writing Mechanics	10%
Analysis	25%
Purpose/Thesis Statement	15%
<b>TOTAL</b>	<b>100%</b>

### Constructivist Math Project

A widely accepted theory of learning in education today is constructivism. Constructivism is rooted in the cognitive school of psychology and the theories. Simply stated, constructivism's basic tenet is that people construct their own knowledge or make their own meaning. Through active participation with their environment and reflection, individuals relate prior knowledge to new learning, thereby creating meaning. Creating this relational understanding is a powerful and long-lasting way of learning mathematics and one that actively engages learners.

Because this course is for future teachers, we want you to develop relational understanding and begin to use constructivist designs for teaching. As a culminating activity for this course, you will choose a constructivist math activity. You will complete the activity yourself and then create a math lesson plan related to the activity for use in a K-8 classroom. Your written math project, lesson plan, and evaluation rubric should be word-processed and submitted together as a complete packet. You should communicate with your instructor about your project choice before completing it.

<i>Components</i>	<i>% of Grade</i>
Organization	15%
Extend Application of Concept	25%
Quality of Materials	35%
Completeness of Presentation	25%
<b>TOTAL</b>	<b>100%</b>

## **COURSE POLICIES**

### **Late Assignments**

LATE ASSIGNMENT

### **Participation**

PARTICIPATION

### **Professional Writing**

Assignments require error-free writing that uses standard English conventions and logical flow of organization to address topics clearly, completely, and concisely. CityU requires the use of APA style.

## **UNIVERSITY POLICIES**

You are responsible for understanding and adhering to all of City University of Seattle's academic policies. The most current versions of these policies can be found in the [University Catalog](#) that is linked from the CityU Web site.

### **Antidiscrimination**

City University of Seattle and its staff and faculty are committed to supporting our students. We value equity, diversity, and inclusion as a way of life as well as the educational opportunities it provides. City U will not tolerate any form of discrimination based on race, color, ethnicity, sexual orientation, gender identification, socioeconomic status, or religious values. If you have experienced any discrimination based on any of the above, we encourage you to report this to the University. Please report this to your instructor. If you do not feel safe reporting this to your instructor, please report to the Provost or to the Vice President of Student Affairs.

### **Non-Discrimination & Prohibition of Sexual Misconduct**

City University of Seattle adheres to all federal, state, and local civil rights laws prohibiting discrimination in employment and education. The University is committed to ensuring that the education environment is bounded by standards of mutual respect and safety and is free from discriminatory practices.

In the U.S., the University is required by Title IX of the Education Amendments of 1972 to ensure that all of its education programs and activities do not discriminate on the basis of sex/gender. Sex include sex, sex stereotypes, gender identity, gender expression, sexual orientation, and pregnancy or parenting status. Sexual harassment, sexual assault, dating and domestic violence, and stalking are forms of sex discrimination, which are prohibited under Title IX and by City University of Seattle policy. City University of Seattle also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Questions regarding Title IX, including its application and/or concerns about noncompliance, should be directed to the Title IX Coordinator. For a complete copy of the policy or for more information, visit <https://my.cityu.edu/titleix> or contact the Title IX Coordinator.

In Canada, in compliance with the British Columbia Human Rights Code, the Alberta Human Rights Act, WorksafeBC, and the Workers' Compensation Board of Alberta, the University believes that its environment should at all times be supportive and respectful of the dignity and self-esteem of individuals. Discrimination, harassment and bullying conduct, whether through person to person behaviour or via electronic communications such as email or social media is not acceptable and will not be tolerated. As an educational institution, it is our responsibility to cultivate an environment of excellence, equity, mutual respect and to recognize the value and potential of every individual. The University will take all necessary steps to meet or exceed the requirements of the law to prevent discrimination, harassment and bullying. The Respectful Workplace Policy for the prevention of discrimination, harassment and bullying policy and procedure can be found at <https://www.cityu.edu/discover-cityu/about-cityu/> under the Policies section or at <https://www.cityuniversity.ca/about/>.

### **Religious Accommodations**

City University of Seattle has a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The University's policy, including more information about how to request an accommodation, is available in the University Catalog and on the my.cityu.edu student portal. Accommodations must be requested by the 20% mark of this course (e.g. day 14 of a ten-week course, day 7 of a 5-week course) using the Religious Accommodations Request Form found on the student dashboard in the my.cityu.edu student portal.

### **Academic Integrity**

Academic integrity in students requires the pursuit of scholarly activity that is free from fraud, deception and unauthorized collaboration with other individuals. Students are responsible for understanding CityU's policy on academic integrity and adhering to its standards in meeting all course requirements. A complete copy of this policy can be found in the University Catalog in the section titled [Academic Integrity Policy](#) under Student Rights & Responsibilities.

### **Attendance**

Students taking courses in any format at the University are expected to be diligent in their studies and to attend class regularly. Regular class attendance is important in achieving learning outcomes in the course and may be a valid consideration in determining the final grade. For classes where a physical presence is required, a student has attended if they are present at any time during the class session. For online classes, a student has attended if they have posted or submitted an assignment. A complete copy of this policy can be found in the [University Catalog](#) in the section titled Attendance under Student Rights & Responsibilities.

### **Final Assignments Due Date**

Final assignments for each class at CityU must be due on or before the final date of the course as indicated in the university's course information system. Due dates that extend beyond the final date of the course may negatively impact tuition funding for students.

## **SUPPORT SERVICES**

### **Disability Services Accommodations Statement**

Students with documented disability who wish to request academic accommodations are encouraged to contact Disability Support Services to discuss accommodation requests and eligibility requirements. Please contact Disability Support Services at [disability@cityu.edu](mailto:disability@cityu.edu) or 206.239.4752 or visit the [Disability Support Services](#) page in the my.cityu.edu portal. Confidentiality will be observed in all inquiries. Once approved, information about academic accommodations will be shared with your course instructors.

### **Library Services**

CityU librarians are available to help students find the resources and information they need to succeed in this course. Contact a CityU librarian through the [Ask a Librarian](#) service, or access [library resources and services](#) online, 24 hours a day, seven days a week.

### **Smarthinking Tutoring**

CityU students have 24/7 access to free online tutoring offered through Smarthinking, including writing support, from certified tutors. Contact CityU's Student Support Center at [mycityusupport@cityu.edu](mailto:mycityusupport@cityu.edu) to request a username and password.