

SYLLABUS

Section I:

Math 147/CIEP 104 Section 001 Math for Teachers I
Fall, 2021: Face to Face

Instructor: **Diane Schiller**

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*Virtual Office Hours: 7:30-8:30 MTWTh

*Responsiveness: I will respond to emails within 24 hours.

*Group or Class MTGS: I will hold study sessions for quizzes at 7:30 am the Monday before the quiz

***School of Education Commitment - COVID-19:** Loyola's School of Education (SOE) recognizes that this is an unprecedented time. We understand that moving into the 2021-2022 academic year while living in the context of the COVID-19 pandemic may stir feelings of uncertainty, fear, or anxiousness. We want you to know that your safety, health, and well-being, as well as that of our faculty and staff, remain our primary concern. We want to be able to support you in any way that we can. We ask you to embody the Jesuit value of [*Cura Personalis*](#), or care for the whole person, as we prepare to learn together. We ask that you consider your way of being in this community, to act with care, and treat all with dignity to keep yourself and others safe. If you are not feeling well, please use Loyola's SYMPTOM Checker. It can be found on the webpage or APP [Loyola Health](#) under the **COVID -19 Related Information Tab** at the top of the page.

The University understands that you may encounter obstacles that make reaching academic goals more difficult. We strongly encourage you to access the Student Resources on [Loyola's COVID-19 Response webpage](#) for information, supports, and resources on basic needs such as housing, food, financial aid, and medical and mental health. This web page also offers information on official University communications, access to technology, and student services. All Loyola University Chicago administrators, faculty, and advisors are also here for you.

The SOE is committed to working with all students to address any challenges that may arise during the semester. Please reach out to your professor as early as possible to discuss any accommodations you think may be necessary in order for you to successfully complete your coursework. Active and engaged communication with all of your professor is encouraged. We know the FALL 2021 Return to Campus will be like no other, but through collaboration, communication, and shared responsibility, we will not only get through this difficult time; we will thrive.

***COVID-19 Required Personal Safety Practices:** We all have a part to play in preventing the spread of COVID-19. Following a simple set of required personal safety practices can lower your own risk of being infected and can help protect others. All members of the Loyola

community are expected to follow these practices while on any of the University's campuses. **Face masks or face coverings must be worn by all students, faculty, and staff while on any of Loyola's campuses, when in the presence of others, in classrooms, and in public settings where other social distancing measures are difficult to maintain.** Appropriate use of face masks or coverings is critical in minimizing the risks to others around you, as you can spread COVID-19 to others even if you do not feel sick. Please be sure to review all [LUC REQUIRED Safety Protocols](#).

***COVID-19 Reporting Protocol:** In preparation for our upcoming semester, Loyola University Chicago's Emergency Response Management team has been working to develop [protocols](#) in accordance with Centers for Disease Control and Prevention (CDC) guidelines that help ensure the health and safety of our community. Given the rising number of COVID-19 cases across our country, it is very likely that incidence within our community will occur in the fall.

Students, faculty, and staff who have tested positive for COVID-19 must report their case to the University as soon as possible. **If you have tested positive for the virus, please contact us at covid-19report@LUC.edu or by calling 773-508-7707. All COVID-19-related questions or feedback should continue to be sent to covid-19support@LUC.edu, not the new case reporting email address.**

2. Essential Course Information:

Course Description: This course provides the fundamental knowledge base for teaching elementary school mathematics. Candidates study the underlying principles of mathematics appropriate for grades pre-k-9. Candidates use Common Core Standards and Principles and Standards for School Mathematics from the National Council of Teachers of Mathematics (NCTM).

Course Rationale and Relationship to the Teacher Education Program: To prepare teachers who can deliver high-quality mathematics education, the Loyola teacher preparation program provides a strong knowledge base, positive attitude, and a wide range of instructional strategies

STANDARDS

SOE Conceptual Framework Standards (CFS)

- CFS1: Candidates critically evaluate current bodies of knowledge in their field.
- CFS2: Candidates apply culturally responsive practices that engage diverse communities.
- CFS3: Candidates demonstrate knowledge of ethics and social justice.
- CFS4: Candidates engage with local and/or global communities in ethical and socially just practices.

IDEA Objectives

1. Learning fundamental principles, generalizations, or theories

2. Learning to apply course material (to improve thinking, problem solving, and decisions)
3. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course

[Insert course description here. Include major course topics and goals, as well as any prerequisites for the course.]

3. Learning Outcomes

- a) Candidates will use the NCTM/Common Core Math Standards to design lessons.
- b) Candidates will connect literature, science, social studies and the arts to math lessons.
- c) Candidates will be able to solve math problems.

COURSE OUTLINE

<u>Week</u>	<u>Essential Math Ideas</u>
1	Multiplication is Everywhere
2	Patterns: The Heart of Mathematics
3	Algebra is for Everyone
4	Math Works
5	Mathematics is Multi-cultural
6	Mathematical Inventions
7	Teach Probability and Fractions Together
8	Geometry:
9	Topology may be in your Future
10	Measurement
11	Measurement: Data
12	Problem Solving
13	Math and the Arts

4. Required Textbooks, Technology, and Software

**Mathematics: a Human Endeavor: a Book for Those Who Think They Don't Like the Subject,*
Harold Jacobs, 3rd Edition 0-1767-2426-x

Mathematicians Are People, Too Volume I: Stories from the Lives of Great Mathematicians
Luetta Reimer, Wilbert Reimer

Riddle Math: Using Student-Written Riddles to Build Mathematical Power, Carl Sherrill,
<http://morningriverpubs.com/W-RiddleMath.htm>

**The Number Devil: A Mathematical Adventure*, Hans Ensenberger ISBN 0-8050-6299-8

More Stories to Solve: Fifteen Folktales from Around the World by [George Shannon](#) (Author) , [Peter Sis](#) (Illustrator)

Fraction Towers

METHOD OF ASSESSMENT

Candidates are expected to put in a minimum of 1.5x class time for 2 out of 3 classes per week in additional outside study.

A wide variety of evaluation strategies are used. Math problems, math journal, participation, integrative activities, lesson plans, instructional materials, quizzes, a final exam, teaching small groups of elementary school children and computer activities contribute to the final grade.

35%: Assignments and Participation

Candidates are expected to participate in each class. Candidates keep a daily math journal and submit it for review before each quiz. All assignments (except for math problems from the Jacobs text) should be **typed**. All assignments are due for the next class period. Candidates hand in assignments in a 2-pocket folder.

No late assignments will be accepted.

5% Lesson Plans and Instructional Materials (5 @ 1% each)

You will prepare and teach five lessons to a small group of children in 4th or 5th grade at Swift School as the service learning component of this class.

Because this course is part of your professional program, the quality of your work is important. The rubric for grading assignments and lesson plans is:

Standard	Points
I would show this to my principal.	1.0
I would show this to my colleagues.	0.9
I would show this to my students.	0.8
This is just for me.	0.7
I was not able to complete the whole assignment.	0.6-0.1
No assignment.	0

30% Quiz 6 @ 5% (No make-up quizzes will be provided. There will be a 7th quiz during the last class. Candidates who miss a quiz must take Quiz 7. Candidates who would like to improve their grade by substituting the Quiz 7 grade for their lowest grade may take Quiz 7.

25% Final Exam

5%: NCTM Standards Notebook (All assignments and class activities will be organized into a binder using the NCTM Standards and assessed at the final exam.)

NCTM Standards Notebook Rubric

	Criteria	%
Introduction	1	1
Neatness		1
5 NCTM tabs		1
Interesting cover		1
100% % of assignments		1

Extra Credit: Candidates will be able to earn up to 10% extra credit for the course through opportunities that will become available during the semester.

- Some of the opportunities include volunteering at schools; attending workshops/lectures on campus; developing children's books to support math content, etc.

Grade Assignments: Minimum %

- A 94%
- A- 90%
- B+ 87%
- B 84%
- B- 80%
- C+ 77%
- C 74%
- C- 70%
- D+ 67%
- D 60%

F 0%

Section II:

SOE Vision

The School of Education of Loyola University Chicago is a community that seeks to transform members to impact local and global communities through the principles of social justice.

School of Education Mission

The School of Education at Loyola University Chicago, a Jesuit Catholic urban university, supports the Jesuit ideal of knowledge in the service of humanity. We endeavor to advance professional education in service of social justice, engaged with Chicago, the nation, and the world. To achieve this vision, the School of Education participates in the discovery, development, demonstration, and dissemination of professional knowledge and practice within a context of ethics, service to others, and social justice. We fulfill this mission by preparing professionals to serve as teachers, administrators, psychologists, and researchers who work across the developmental continuum, and by conducting research on issues of professional practice and social justice.

Conceptual Framework and Conceptual Framework Standards

Each syllabus is required to have a statement explaining how the SOE's Conceptual Framework (CF)—*Social Action through Education*—is exemplified within the context of the particular course. As a part of this statement, faculty need to attend to how the course addresses diversity and the social justice mission of the School of Education.

If the course(s) you are teaching houses a Core Assessment for one or more of the CF standards for your program area, it is critical that you include the CF standard(s) and describe how it weaves through the course and is assessed. For your reference: our conceptual framework is described here - www.luc.edu/education/mission/

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Section III: The addendum for your syllabus.

- Smart Evaluation
- The SOE Statement on Conceptual Framework and Student Dispositions
- LiveText
- Student Resources and Center for Student Access and Assistance (CSAA)
- Academic Honesty
- Accessibility
- EthicsLine Reporting Hotline
- Electronic Communication Policies and Guidelines

Smart Evaluation

Towards the end of the course, students will receive an email from the Office of Institutional Effectiveness reminding them to provide feedback on the course. They will receive consistent reminders throughout the period when the evaluation is open, and the reminders will stop once they have completed the evaluation.

- The evaluation is completely anonymous. When the results are released, instructors and departments will not be able to tell which student provided the individual feedback.
- Because it is anonymous and the results are not released to faculty or departments until after grades have been submitted, the feedback will not impact a student's grade.

The feedback is important so that the instructor can gain insight in to how to improve their teaching and the department can learn how best to shape the curriculum.

IDEA Objectives

1. Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)
2. Learning to apply course material (to improve thinking, problem solving, and decisions)
3. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course

Dispositions

All students are assessed on one or more dispositional areas of growth across our programs: *Professionalism, Inquiry, and Social Justice*. The instructor in your course will identify the dispositions assessed in this course and you can find the rubrics related to these dispositions in LiveText. *For those students in non-degree programs, the rubric for dispositions may be available through Sakai, TaskStream or another platform.* Disposition data is reviewed by program faculty on a regular basis. This allows faculty to work with students to develop throughout their program and address any issues as they arise.

LiveText and Digication

All students, *except those who are non-degree*, may have access to LiveText to complete the benchmark assessments aligned to the Conceptual Framework Standards and all other

accreditation, school-wide and/or program-wide related assessments. You can access more information on LiveText here: [LiveText](#).

[Digication](#) is Loyola's ONLINE portfolio platform. Many of the School of Education programs utilize Digication for Assessment and data collection to manage accreditation and licensure requirements. Your professor and Program chair will work with you to better understand submission requirements that are specific to courses and programs.

Additional ONLINE Course Policies

***Privacy Statement**

Assuring privacy among faculty and students engaged in online and face-to-face instructional activities helps promote open and robust conversations and mitigates concerns that comments made within the context of the class will be shared beyond the classroom. As such, recordings of instructional activities occurring in online or face-to-face classes may be used solely for internal class purposes by the faculty member and students registered for the course, and only during the period in which the course is offered. Students will be informed of such recordings by a statement in the syllabus for the course in which they will be recorded. Instructors who wish to make subsequent use of recordings that include student activity may do so only with informed written consent of the students involved or if all student activity is removed from the recording. Recordings including student activity that have been initiated by the instructor may be retained by the instructor only for individual use.

***Class Conduct**

One important aspect of a Jesuit education is learning to respect the rights and opinions of others. Please respect others by (1) allowing all classmates the right to voice their opinions without fear of ridicule, and (2) not using profanity or making objectionable (gendered, racial or ethnic) comments, especially comments directed at a classmate.

***Student Support**

Special Circumstances--Receiving Assistance

Students are urged to contact me should they have questions concerning course materials and procedures. If you have any special circumstance that may have some impact on your course work, please let me know so we can establish a plan for assignment completion. If you require assignment accommodations, please contact me early in the semester so that arrangements can be made with [Student Accessibility Center](#) (SAC) (<http://www.luc.edu/sac/>).

***Center for Student Access and Assistance (CSAA)**

Should you encounter an unexpected crisis during the semester (e.g., securing food or housing, addressing mental health concerns, managing a financial crisis, and/or dealing with a family emergency, etc.), I strongly encourage you to contact the Office of the Dean of Students by submitting a CARE Referral for yourself or a peer in need of support: www.LUC.edu/csaa. If you are uncomfortable doing so on your own, please know that I can submit a referral on your behalf.

This link directs students to statements on essential policies regarding *academic honesty, accessibility, ethics line reporting and electronic communication policies and guidelines*. We ask that you read each policy carefully.

This link will also bring you to the full text of our conceptual framework that guides the work of the School of Education – *Social Action through Education*.

Syllabus Addendum Link

<https://www.luc.edu/education/academics/syllabi/>

Inquiry

- Candidate demonstrates the ability to generate their own knowledge by carrying out discipline-recognize, systematic approaches to gathering and using multiple forms of data to inform instruction and promote learning for all. Identifies adaptations for students by name in lesson plan

Social Justice

- Candidates consistently welcome and affirm diversity at all levels and demonstrate respect and understanding of differences across groups in their academic and/or field-based work.
- In their written, spoken, and collaborative course contributions, candidates continuously examine and challenge their own beliefs about equity and social justice.
- Candidates clearly and actively model their commitment to taking action to promote multiple perspectives, to seek justice and prevent injustice, and to advocate for the marginalized in schools and society.