

## SYLLABUS

### Section I:

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

Instructor: **Diane Schiller**

Campus Office: **Granada 445.1**

Email: **dschill@luc.edu**

Phone: 773-508-8337

\*Virtual Office Hours: 7:00-8:30 MTWTh

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

\***Group or Class MTGS:** I will hold study sessions for quizzes at 7:00 am the Tuesday before quizzes.

**\*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 SPRING 2022 Return to Campus is once again a challenge for all of us, but through collaboration, communication, and shared responsibility, we will not only get through this difficult time; we will thrive.

**\*On-Campus COVID-19 Testing:** Everyone in our community is **strongly encouraged** to participate in [on-campus surveillance testing](#)—even if fully vaccinated and boosted.

**\*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. To keep the community safe, all Ramblers should get boosted as soon as they are eligible, wear high-quality masks over their mouths and noses, and [test often](#). N95 masks are available for pick up at each on-campus testing site. Please be sure to review all [LUC REQUIRED Safety Protocols](#).

**\*COVID-19 Reporting Protocol:** If you test positive for COVID-19, continue to follow the University's [Positive Diagnosis Protocol](#) and report your case to the University immediately by contacting [COVID-19report@LUC.edu](mailto:COVID-19report@LUC.edu) or by calling 773-508-7707.

**\*Exposure notification process update:** Given the high transmission rate of the Omicron variant in Chicago, contact tracing is not pragmatic or effective at this time. Our COVID Care Coordinators will suspend contact tracing, and will focus on those diagnosed with COVID-19. Students, faculty, and staff who test positive for COVID-19 will be responsible for notifying their contacts; close contacts should monitor symptoms and test 5 days after exposure. Those not comfortable with identifying themselves can use solutions like [Tell Your Contacts](#) to report anonymously.

### 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

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

#### **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**

##### **Week   Essential Math Ideas**

- 1-2** Multiplication is Everywhere
- 3-4** Patterns: The Heart of Mathematics
- 5-6** Mathematics is Multi-cultural
- 7** Math Works and Mathematical Inventions
- 8-9** Teach Probability and Fractions Together
- 10** Algebra is for Everyone

**11-12** Geometry and  
Measurement

**13** Topology may be in  
your Future

#### 4. Required Textbooks.

\**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. 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 unless candidates request an extension via email.  
Candidates should indicate their date of submission expectation.*

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

You will prepare and teach five lessons to a small group of children in 4- or 5- 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:

<b>Standard</b>	<b>Points</b>
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	0.7

me.

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 7- 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	
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 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.

### **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**

- . 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.

### **Section III: The addendum for your syllabus.**

- **Smart Evaluation**
- **The SOE Statement on Conceptual Framework and Student Dispositions**
- **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. 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.

### **Digication**

[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.

#### **\*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)

[\(http://www.luc.edu/sac/\)](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](http://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.