Mathematics 4020-1: Mathematics for Elementary Teachers I  
Spring 2020, LCB 121,  
MWF 11:50 am – 1:15 pm, Lab Wed 1:25 – 2:15 pm

**Instructor:** Rebecca Noonan Heale  
**Office:** JWB 213  
**Instructor Pronouns:** she/her/hers  
**Email:** rebecca@math.utah.edu

**Office Hours:** M 10-11 am in JWB 213  
F 2-3 pm in JWB 213

**Learning Assistant:** K. Green (Connect via Canvas messaging)

**Textbook:** Mathematics for Elementary Teachers with Activities (5th edition), by Sybilla Beckmann. ISBN-13: 978-0134392790. We will discuss material from chapters 10-16 of this text, and homework exercises will be assigned from it.

**Course Content:** This course is the second in a two-semester sequence of required mathematics courses for elementary school teachers. The sequence is designed to help K-6 preservice teachers develop a conceptual framework for mathematics, especially for those aspects normally experienced in primary and elementary school. Students consider both mathematical and pedagogical issues in teaching and spend a six-hour practicum in a local school relating their course work to the classroom situation. **Students must complete the practicum in order to pass the course.** In addition, there is a required lab component to this course. Math 4020 covers geometry, statistics, and probability (the majority of our time will be spent on geometry).

**Credit Hours:** 4.0

**Prerequisites:** C or better in (MATH 4010 AND (MATH 2000 OR MATH 2015 OR MATH 1050)).

**How You Will Be Graded:**
- Written homework: 10% (lowest two dropped)  
- Class Quizzes: 20% (lowest one dropped!)  
- Lab Quizzes: 10% (lowest two dropped)  
- Practicum: 10% (but required to pass)  
- Two Midterm Exams: 20%  
- Final Exam: 30%

**Dates:**

**Quizzes:**
1. Friday, January 17th  
2. Friday, January 31st  
3. Friday, February 14th  
4. Friday, February 28th  
5. Monday, March 30th  
6. Friday, April 10th

**Exams**
1. Friday, February 7th  
2. Friday, March 20th  
3. Wednesday, April 15th

**Final Exam**
Monday, April 27, 10:30 am – 12:30 pm, in LCB 121

**Practicum**
- Wednesday, January 31st - signed permission slip from your cooperating school  
- Monday, February 24th – Draft Part 1 due for Peer Review  
- Monday, February 28th – Peer Review Comments  
- Monday, March 2nd – Final Version of Part 1  
- Wednesday, April 1st - Draft Part 2 due for Peer Review  
- Monday, April 6th - Peer Review Comments  
- Monday, April 13th – Final Version of Part 2

**Grade Breakdown by Percent:**
- 93-100%: A  
- 90-92.99%: A-  
- 87-89.99%: B+  
- 83-86.99%: B  
- 80-82.99%: B-  
- 77-79.99%: C+  
- 73-76.99%: C  
- 70-72.99%: C-  
- 67-69.99%: D+  
- 63-66.99%: D  
- 60-62.99%: D-  
- 0-59.99%: E
Written Homework: Almost every day, a short homework assignment (approximately three to four exercises) will be due within the first five minutes of class. This will be strictly enforced. The homework will comprise of exercises from the textbook, assigned at the end of the previous class. The exercises will be posted to Canvas shortly after class. Each assignment will be awarded five points for complete and coherent work, and another five points will be awarded according to correctness and pedagogical structure. Here, pedagogical structure,” refers to the way in which you explain your solutions, as if you were a classroom teacher explaining your solutions to your students, with attention to wording, sense-making, and representation. Your lowest-scoring written homework assignment will be dropped.

If you do not understand a homework problem, it is your responsibility to ask questions well in advance of homework due dates. You are welcomed to email me or the LA, post in the discussion section of Canvas, form a study group and meet in person or have an online group session (see conference feature on Canvas), come to office hours or set up an appointment to meet with me.

Class Quizzes: Roughly every other week, there will be a quiz on the previous two weeks' material. One quiz will be dropped. Calculators are allowed, but smart devices are not. Quizzes are closed-notes.

Labs: There is a required lab component for this course. Students should be registered for the lab section, which is held on Wednesdays, 1:25 – 2:15 pm in LCB 121. Our lab session is conducted by a peer Learning Assistant. Lab provides an opportunity to engage in collaborative problem-solving, develop procedural fluency from conceptual understanding, and practice communicating mathematics with a focus on arguments and representations. A collaborative small-group “quiz” will be administered and collected at the end of each lab session. Your two lowest lab quizzes will be dropped. Lab quizzes are generally open-notes, unless specified otherwise.

Midterm Exams: There will be three midterm exams. Calculators are allowed, but smart devices are not. You will be allowed to use a one-page (front-and-back) sheet of paper with any notes you desire, in any format, on your midterms.

Practicum: Each student will spend six hours in an elementary school classroom, three hours observing and three hours working with one or two children in the classroom. More information and a scoring rubric will be provided during class and posted to Canvas.

Final Exam: Our final exam is scheduled for Monday, April 29, 6:00 - 8:00 pm, in LCB 121. It will be comprehensive but emphasize material covered after Midterm 2. Calculators are allowed, but smart devices are not; the final exam is closed-notes, but you will be allowed to bring a one-page (front and back) sheet of notes with you.

Policies and expectations:
Active participation is expected. In order to ensure a vibrant learning environment in which we may discuss coursework, no late assignments or labs will be accepted. Similarly, quizzes and exams may not be made up in advance or after the fact without serious extenuating circumstances. The University of Utah student code allows for making up quizzes or exams in advance for “officially sanctioned University Activities .... or government obligations, or religious obligations”. Please contact me at least one week in advance of any such obligations to arrange accommodation.

Furthermore, to support a productive learning environment, students must be present in class to turn in homework.

As shiny devices tend to distract humans both near and far from said shiny device, as a courtesy, please keep phones put away unless explicitly allowed by the instructor. While you may occasionally be allowed to use your phone’s calculator or Desmos.com during class, note that phones are not allowed on quizzes/exams.
Academic misconduct is not tolerated. The Student Code for the University of Utah can be found at: http://regulations.utah.edu/academics/6-400.php

**Classroom Social Equity:** I strive to be ethical, kind, fair, inclusive and respectful in my classroom and expect students to behave likewise. In this regard, I have these requests of students:

1. Please do tell me, discreetly, if you have any sort of anxiety disorder, TBI, PTSD, C-PTSD, or any other challenge that would cause psychological harm to you by me calling on you in class. I want students to feel a little uncomfortable and stretched during class, while working on problems as a large group, but I definitely don’t want to cause any human being harm. So, please discreetly tell me if that is the case for you and I will confidentially accommodate your request.

2. If your preferred name is different than your legal first name (the preferred name you chose does indeed show up in CIS on my roll sheet, but not yet in Canvas), please log into Canvas and go to Account (on far left) Settings and change your Display Name to be the name you prefer to be addressed by. This will help me greatly to know students’ names, and to address you correctly when responding to Canvas quiz comments.

3. If there is ever a time that you feel this course or the curriculum is not equitable, please email me or meet with me to discuss your concerns so I have a chance to address that.

**ADA Statement:** The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability and Access, 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability and Access.

**Student Responsibilities:** All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. http://regulations.utah.edu/academics/6-400.php

**Addressing Sexual Misconduct:** Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

**Wellness Statement:** Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student’s ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776.
**Preferred Name and Pronoun:** Class rosters are provided to the instructor with the student’s legal name as well as “Preferred first name” (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in correspondence, discussions, in office hours and on assignments, etc. Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your UIDcard, please visit the LGBT Resource Center Room 409 in the Olpin Union Building, or email bpeacock@sa.utah.edu to schedule a time to drop by. The LGBT Resource Center hours are M-F 8am-5pm, and 8am-6pm on Tuesdays.

**Campus Safety Statement:** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

**Disclaimer:** The instructor reserves the right to modify this syllabus to better suit class needs at any time during this semester. Any changes that are made will be immediately communicated during class and via Canvas.