Course Details
MATH 113 Structure of Mathematics I: Number Systems, 3 Credits
- Sections:
  - Math 113-01, MW 12:15 - 1:30 pm, EDB 109
  - Math 113-02, TR 9:25 - 10:40 am, EDB 125
- Tentative schedule can be found [here](#) (Section 01) or [here](#) (Section 02)

Professor Information
Dr. Melissa Gunter
- Email: mgunter@ccsu.edu
- Office: Marcus White Hall Room 117 and WebEx room
- Office Hours: T 11:00 am - 12:00 pm
  - W 9:30 - 11:30 am
  - R 11:00 am - 12:00 pm, 1:00 - 2:30 pm
  - and by appointment

Course Description
- First of a two-course sequence (113/213). This course will allow students to construct their own foundational and conceptual understanding of mathematical topics including calculators, sets, functions, whole numbers, numeration systems, integers, elementary number theory, real numbers, rational numbers, and decimals through a problem solving approach. Emphasis will be placed on the demonstration of conceptual understanding and problem-solving, which will require frequent mathematical reasoning and communication. Mathematics content is used to develop the mathematical practices, insight, and skills of education majors.

Required Course Materials
- Custom Manipulative Kit from the CCSU Bookstore
- Access to the course website (in Blackboard) and working email

Course Goals
- Work to:
  - Make sense of problems and persevere in solving them
  - Reason abstractly and quantitatively
  - Construct viable arguments and critique the reasoning of others
Central Connecticut State University
Department of Mathematical Sciences Fall 2021

○ Model with mathematics
○ Use appropriate tools strategically
○ Attend to precision
○ Look for and make use of structure
○ Look for and express regularity in repeated reasoning

● Deepen understanding of mathematical concepts by working to:
○ Develop and use problem solving strategies
○ Develop number concepts and operations with extensive use of manipulatives
○ Encourage mathematical discourse through cooperative learning and written communication
○ Experience and learn mathematics content through constructivist pedagogy

For this Course

● The last day to withdraw from this course and receive a grade of “W” is Wednesday, November 17, 2021. After November 17th, withdrawals are allowed only under extenuating circumstances and require approval of the course instructor and department chair (in that order).
● You must take the final examination at the time specified for your section. The final examination times are as follows:
  ○ Section 01 Monday, December 13, 10:30 am - 12:30 pm
  ○ Section 02 Tuesday, December 14, 8:00 - 10:00 am

University Policies

● Student Disabilities Services
  ○ If you are a student with a documented disability, and would like to request academic accommodations, you are encouraged to contact Student Disability Services (SDS) at 860-832-1952, or email disabilityservices@ccsu.edu. Please visit the SDS website at http://www.ccsu.edu/sds/ to download an Intake form and documentation requirements. Temporary impairments may also qualify for accommodations. Central Connecticut State University provides reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act for students with documented disabilities on an individualized basis.
  ○ Please contact me privately to discuss your specific needs if you believe you need course accommodations based on the impact of a disability, medical condition, or if you have emergency medical information to share. I will need a copy of the accommodation letter from Student Disability Services, Willard- Room 201 in order to arrange your class accommodations. Student Disability Services
Central Connecticut State University
Department of Mathematical Sciences Fall 2021

maintains the confidential documentation of your disability and assists you in coordinating reasonable accommodations with faculty.

● Weather Emergencies
  ○ In the event of a weather emergency which requires the cancellation of classes, listen to WTIC (1080 AM) or call (860) 832-3333 for the "general snow message". You can also check the CCSU Website. Please check your class email before you head to campus.

● Academic Integrity
  ○ You are responsible for understanding and abiding by the University’s policy on academic integrity. The Department of Mathematical Sciences rigorously enforces this policy. Academic Integrity is the responsibility a student assumes for honestly representing all academic work. All students are expected to demonstrate integrity in the completion of their coursework. Academic integrity means doing one's own work and giving proper credit to the work and ideas of others. It is the responsibility of each student to become familiar with what constitutes academic dishonesty and plagiarism and to avoid all forms of cheating and plagiarism. Students who engage in plagiarism and other forms of academic misconduct will face academic and possibly disciplinary consequences. Academic sanctions can range from receiving a zero for the assignment, quiz, test or final exam to a failing grade for the course. From a disciplinary standpoint, an Academic Misconduct Report may be filed and a Faculty Hearing Board may impose sanctions such as probation, suspension or expulsion.
  ○ For further information on academic misconduct and its consequences, please consult the Student Code of Conduct (http://www.ccsu.edu/StudentConduct/codeofconduct.asp) and the Academic Misconduct Policy (http://www.ccsu.edu/AcademicIntegrity/).

● Statement on Discrimination and Harassment
  ○ Central Connecticut State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon age; ancestry, color; gender identity and expression; intellectual disability; learning disability; mental disorder; physical disability; marital status, national origin; race; religious creed; sex, (including pregnancy, transgender status, sexual harassment and sexual assault); sexual orientation; or any other status protected by federal or state laws. Any student who has concerns should contact the Office for Equity & Inclusion (OEI) at 860-832-1652, Student Affairs at 860-832-1601, or their faculty member. The OEI is located on the main floor of Davidson Hall, room 119.

● Sexual Misconduct, Intimate Partner Violence and Stalking
Central Connecticut State University
Department of Mathematical Sciences Fall 2021

○ Central Connecticut State University (CCSU) will not tolerate sexual misconduct against students, staff, faculty, or visitors in any form, including but not limited to: sexual assault, sexual exploitation, sexual harassment or stalking, as defined in CCSU policies. For additional information, please consult the CCSU policy at https://www.ccsu.edu/diversity/policies/index.html. All faculty members and staff have a duty to report incidents of sexual harassment including sexual misconduct, intimate partner violence and stalking to Pamela Whitley, Title IX Officer, Office for Equity & Inclusion, Davidson Hall, 119.

○ To file a report, contact: Equity & Inclusion (860-832-1652), Student Conduct (860-832-1667) or Student Affairs (860-832-1601). For criminal complaints, contact the University Police (860-832-2375).

○ For support and advocacy, contact: Office of Victim Advocacy at 860-832-3795; Student Wellness Services at 860-832-1945 (confidential); Women’s Center at 860-832-1655; the local YWCA's Sexual Assault Crisis Services Hotline at 860-223-1787 (confidential) and Prudence Crandall Center for Domestic Violence (confidential) at 888-774-2900 (24-hour hotline).

Evaluation and Grading Criteria

● All assignments are to be turned in at the beginning of class time on the days they are due. If they are not turned in at the beginning of class, they are considered late. Assignments that are late may be subjected to a penalty. You will receive no credit for assignments that are more than two weeks late. **All course assignments must be complete for you to receive a grade for the course.**

● You are responsible for attending and participating in each class opportunity. **If we believe that people construct their own understanding from their experiences (and we do), you must be present for the experience!** If you miss class, it is your responsibility to get information from a classmate or contact the instructor so that you can be prepared for the next class period.

● Grading Scale:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
<th>Point Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>( p \geq 93 )</td>
<td>558 - 600</td>
</tr>
<tr>
<td>A</td>
<td>( 90 \leq p &lt; 93 )</td>
<td>540 - 557</td>
</tr>
<tr>
<td>B+</td>
<td>( 88 \leq p &lt; 90 )</td>
<td>528 - 539</td>
</tr>
<tr>
<td>B</td>
<td>( 83 \leq p &lt; 88 )</td>
<td>498 - 527</td>
</tr>
</tbody>
</table>
Assignment Descriptions:

- **Weekly Discussions**, *(70 points – 5 points each)* You are expected to engage in weekly discussions by creating your own response to the prompt and replying to your classmates. Students must engage fully with each activity to receive the maximum benefit to their learning. Therefore, students who are late or absent will forfeit the points which correspond to the activities for which they were not fully present. **There are no make-up activities for discussions.**

- **Homework**, *(130 points – 10 points each)* Homework will be due at the beginning of the class after it was assigned. Because homework is *for practice*, you will not be penalized for getting answers wrong as long as you provide some evidence that you have fully attempted each problem. Homework will be loosely based on a 2-4-2 model described by Steve Leinwand (here’s a [link to his website](#) if you’re interested).

- **Assessments**, *(100 points – 50 points each)* Two assessments will be given during class time – a midterm assessment and a final assessment. Each assessment will consist of mostly open-ended questions. **No make-up assessments will be given** except in the case of an extreme emergency, in which case documentation will be required.

- **Mathematics Portfolio**, *(100 points)* Your mathematics portfolio should demonstrate your learning throughout the semester. We will work together to determine exact entries and criteria early in the semester (see schedule), so that you will be able to carefully consider what to utilize as artifacts. Each artifact should be accompanied by a written reflection, explaining how and why the artifact meets the criteria for the entry. Your portfolio will be due the last week of class.

- **Final Project**, *(200 points – see detail below)* The final project is one that we will work on throughout the semester. Students will create a children’s book about one of the
approved topics we are covering this semester. In the nature of children’s literature, these creations should have original prose and illustrations, as well as illuminate the conceptual nature of the topic of focus. There will be three checkpoints throughout the semester to ensure adequate progress is being made.

- **Checkpoint 1 (20 points)** At this checkpoint, students should have a general idea about a topic and storyline they’d like to work on.
- **Checkpoint 2 (25 points)** This is the halfway point of the semester. As such, a rough draft of the story (perhaps in storyboard format, or similar) should be provided and include ideas for illustrations and a significant portion of the required prose.
- **Checkpoint 3 (25 points)** At this point, a rough draft will be provided for peer review by the rest of the class, to guide and inform the final draft. In addition, a short reflection about what you are trying to communicate through your story and how it has contributed to your own understanding will be turned in.
- **Final Draft (130 points)** Once you have considered feedback from your peers, the final draft of your children’s story will be turned in at the end of the semester.