Central Connecticut State University  
Department of Mathematical Sciences Fall 2021

Course Details
MATH 414 Teaching Mathematics in the Middle School, 3 Credits
- Sections 414-01, EDB 205, T 4:30 - 7:10 pm
- Tentative schedule can be found [here](#).

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
- This course will focus on pedagogical techniques specific to contemporary mathematics programs in the middle school with emphasis on the structure of the mathematics content and equitable teaching practices used to develop conceptual understanding. This course is for teacher certification only and graduate credit will not be granted. Thirty hours of field experience at the Middle School level is required.

Required Course Materials
- Access to the course website (in Blackboard) and working email
- Texts (either electronic or hardcopy, your choice; will also be used in MATH 415):

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

● Develop and deepen understanding of the work of a math teacher by:
  ○ Exploring pedagogical frameworks and effective teaching practices established in our field
  ○ Learning to assess and critique curricular materials
  ○ Beginning to lesson plan
  ○ Envisioning and reflecting upon our future classrooms
  ○ Experiencing and exploring mathematics content through constructivist pedagogy
  ○ Preparing for certification requirements (specifically edTPA)

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 for MATH 414-01 is Tuesday, December 14 from 5:30 - 7:30 pm.

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/](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
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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](http://www.ccsu.edu/StudentConduct/codeofconduct.asp)) and the Academic Misconduct Policy ([http://www.ccsu.edu/AcademicIntegrity/](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**
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- 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](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:

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<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>A+</td>
<td>( p \geq 93 )</td>
</tr>
<tr>
<td>A</td>
<td>( 90 \leq p &lt; 93 )</td>
</tr>
<tr>
<td>B+</td>
<td>( 88 \leq p &lt; 90 )</td>
</tr>
<tr>
<td>B</td>
<td>( 83 \leq p &lt; 88 )</td>
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</tbody>
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Assignment Descriptions:

- **Weekly Reading Discussions.** *(10% of final grade)* You are expected to engage in weekly discussions by creating your own response to the prompt and replying to your assigned group. This discussion done in Blackboard will inform and guide the discussion in class. **There are no make-up activities for discussions.**

- **In-Class Participation.** *(10% of final grade)* There will be activities and assignments done during our class times that relate directly to, help you prepare for, or otherwise enhance assignments that are to be completed outside of class time. Depending upon the activity, there may or may not be an alternative make-up for these items.

- **History of Mathematics Presentation.** *(10% of final grade)* Determine a person of interest from math history, taking into account diversity of gender and country of origin (aka look outside the normal realm of Dead White Guys… we know enough about them). Answer the following questions about them in an appropriate format of your choice:
  - **Who are they?**
    - Where were they born? When? How did the history of that time affect their life and/or work? Was there something unusual or interesting about them?
  - **What contribution did they make to mathematics?**
    - What was their defining piece of work? Explain it to the best of your ability.
  - **How/when did their contribution have the greatest impact?**
    - Was it years and years later after lots of controversy? Was it hotly contested? Did it get them executed?! Did someone else take credit for it?
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- **Rehearsal Teaching.** *(15% of final grade)* Part of becoming a teacher is getting more comfortable in front of a group of people. We will have a number of opportunities to do that this semester, but particularly some opportunities where you will be actively teaching us something, including:
  - **Activity Demonstration.** You will be required to present an activity that is related to the teaching of mathematics in middle school during class time. This activity is to focus on a specific concept that you would like to teach using any hands-on materials.
  - **Field Experience Teaching.** You will use a portion of your final project lesson plan in your field experience placement to teach one portion with students (with your cooperating teacher’s input and guidance, of course). You will turn in a reflection about
  - **Rehearsal Teaching.** You will teach a portion of your final project Lesson Plan to our class.

- **Ramp Up to Lesson Planning.** *(25% of final grade)* Over the course of the semester, we will be building up to writing a well-organized, thoughtful, and usable lesson plan. This will include the following parts:
  - **Lesson Narrative.** As an introduction to lesson planning, you will consider the overarching narrative related to at least one objective of your choice. You should choose objectives that include conceptual, procedural, math reasoning, and language goals.
  - **Formative Assessment.** You will create a formative assessment for students that is tied to at least one specific, written objective of your choice. You should choose objectives that include conceptual, procedural, math reasoning, and language goals.
  - **Language Support.** Given a lesson from a model curriculum, you will write at least one language objective, identifying vocabulary that is important for students to be able to communicate about. Then, you will select an appropriate language function, identify relevant syntax/discourse, and design a targeted language support that will help students with one or more of the language demands you identified.

- **Final Project.** *(30% of final grade)* The final project is one that we will work on throughout the semester. Write up a very detailed, edTPA-style lesson plan for a complete lesson you might use in your future classroom. In addition, you will complete a separate reflection about this lesson very similar to one completed for an Activity Reflection.
  There will be three checkpoints throughout the semester to ensure adequate progress is being made before the final draft is turned in.
Checkpoint 1. At this checkpoint, students should have a general idea about a concept/objective they’d like to focus on.

Checkpoint 2. This is the halfway point of the semester. As such, a rough draft of the LP should be provided. Peer reviews will be done at this stage by an assigned partner.

Checkpoint 3. 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.

Final Draft. Once you have considered feedback from your peers, the final draft of the LP will be turned in at the end of the semester. Those students completing articles should also provide evidence that it has been submitted for publication.