MATH 119: Precalculus with Trigonometry

CLASS INFORMATION:
Semester and Year: Spring 2021
Course Number: Math 119 section 03
Class Meeting Time: MWF 12:15 - 1:25 pm (online synchronous)
To join the online class meeting you will need to use the link posted on the Blackboard (see Announcements). The link will also be emailed to you before the first class meeting.

INSTRUCTOR INFORMATION:
Name: Dr. Viktoria Savatorova
Office Location: Marcus White 118
Office Phone: 860-832-3679
Email: viktoria.savatorova@ccsu.edu (please include your name and Math 119 in the subject line)
Office Hours: W 4:20-5:35 pm; F: 10:30-11:45 am or by appointment

COURSE DESCRIPTION: Intensive preparation course for the calculus sequence. Properties of functions including polynomial, rational, periodic, exponential and logarithmic, and rate of change. Also covers trigonometry, including the unit circle, right triangles, and analytic trigonometry. No credit given for students with credit for Math 115, 116, 121, 124, 135 or 152.

PREREQUISITES for the COURSE:
MATH 101 (B- or higher) or MATH 103 (B- or higher) or placement exam.

CREDITS: 4

COURSE MATERIALS:
Required Text: Precalculus by Jay Abramson. Read or Download for free at https://openstax.org/details/books/precalculus. A pdf version of the book is also posted on the Blackboard.
Homework: The Homework Assignments will be posted on the Edfinity Platform. Go to the following registration link: https://edfinity.com/join/R6N6MJB6 (see more details below). This service has a cost of 25 dollars for you.
Blackboard: This course uses the Blackboard online system to provide you with course materials including the syllabus, tentative class schedule, class announcements, studying guides, etc. You will also use Blackboard to submit Tests and some of the Quizzes. Your grades will also be posted there.
Calculators: The recommended calculator is one of the following: TI-83, TI-83+, TI-84, TI-84+, TI-86. NOTE: Tests and quizzes may have “do this problem by hand” questions with no calculators allowed.
Computer, camera, and microphone: The class will meet online, you will need to have a strong Internet signal to see and hear what is going on. You will need a camera and a microphone to be able to share your work and present it to the class.

TOPICAL OUTLINE:
Chapter 1. Functions and Their Graphs (Sections 1.1-1.7)
Chapter 2. Linear Functions (Sections 2.1-2.2, 2.3*-2.4*)
Chapter 3. Polynomial and Rational Functions (Sections 3.1-3.8)
Chapter 4. Exponential and Logarithmic Functions (Sections 4.1-4.7)
Chapter 5. Trigonometric Functions (Sections 5.1-5.4)
Chapter 6. Periodic Functions (Sections 6.1-6.3)
Chapter 7. Trigonometric Identities and Equations (Sections 7.1-7.5)
Chapter 8. Further Applications of Trigonometry (Sections 8.1, 8.2, 8.3*-8.5*)
(*The sections marked with an asterisk will be covered if time permits.)
LEARNING OUTCOMES:

- Identify the domain and range of a function;
- Identify whether a given function is odd, even or neither, whether it is periodic;
- Combine functions (multiplication, division, addition and subtraction and composition);
- Find an inverse of a one-to-one function, state its domain and range;
- Sketch the graph of a function, state its vertical and horizontal asymptotes (if there are any);
- Solve quadratic, exponential and logarithmic equations;
- Define and graph trigonometric and inverse trigonometric functions;
- Use trigonometry to solve problems involving triangles;
- Use trigonometric identities;
- Solve trigonometric equations.

The main overall objective of this course is to prepare students for the Calculus sequence. This course covers the material of MATH 115 and MATH 116 (two 3-credit courses) in one 4-credit course, so it is rather intensive and fast-paced course.

EVALUATION AND GRADE ASSIGNMENT:

<table>
<thead>
<tr>
<th>Weight</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>Online Homework (HW)</td>
</tr>
<tr>
<td>17%</td>
<td>1st Mid Term Exam (T1)</td>
</tr>
<tr>
<td>17%</td>
<td>2nd Mid Term Exam (T2)</td>
</tr>
<tr>
<td>17%</td>
<td>3rd Mid Term Exam (T3)</td>
</tr>
<tr>
<td>9%</td>
<td>Quizzes (in class and take home) (Q)</td>
</tr>
<tr>
<td>6%</td>
<td>In class participation activities (A)</td>
</tr>
<tr>
<td>4%</td>
<td>In class presentation (P)</td>
</tr>
<tr>
<td>20%</td>
<td>Cumulative Final Exam (F)</td>
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HOW TO CALCULATE YOUR GRADE:

TOTAL = 0.17*T1+0.17*T2+0.17*T3+0.10*HW+0.09*Q+0.04*P+0.06*A+0.20*F

Letter grades will be assigned according to the following scale: A 93-100, A- 90-92.9, B+ 87-89.9, B 83-86.9, B- 80-82.9, C+ 77-79.9, C 73-76.9, C- 70-72.9, D+ 67-69.9, D 63-66.9, D- 60-62.9, F below 60.

COURSE SCHEDULE: The (tentative) weekly schedule is posted on the Blackboard

CLASS POLICIES:

ATTENDANCE: Attendance of our online meetings is a mandatory component of this class, and it will be taken regularly. In class participation activities will be offered, and they will influence the grade for the course. Since the class is online, you are encouraged to (1) study before the meeting, (2) bring your questions about the course material and about the homework to the meeting. Do not be afraid to speak in class. Participation will be appreciated even if your idea is not the greatest or your answers are not always correct. Making mistakes is a part of the learning process.

MAKE-UP POLICY: If you miss a class meeting for any reason, you are responsible for all the topics and announcements made in your absence. Make up work will not be accepted and will result in a recorded grade of zero. Missing an examination is a very serious matter. If you know in advance that you will have to miss an examination, you MUST inform your instructor before the examination. In that case, you will normally be offered an alternate time for the examination. If you miss an examination because of an emergency, you need to contact your instructor by the e-mail within 24 hours of the beginning of the examination. Do not wait until the next class meeting to contact your instructor!
IN CLASS PRESENTATIONS: each student will be asked to present a homework problem of their choice with its solution to the class. The details will be provided during the first days of classes. The schedule of presentations will be posted on the Blackboard. It will be updated during the semester.

HOMEWORK:
Online Homework will be assigned and graded using Edfinity for MATH 119 Spring 2021. Online homework is due each Monday at 11:45 pm. You are required to do all the problems before the due date/time to avoid 10% penalty. No credit will be given for any work completed after the final exam.

To enroll, please follow the steps below:
1. If you already have an Edfinity account from a previous course, please sign into it. Otherwise, go to step 2.
2. Go to the following registration link: https://edfinity.com/join/R6N6MJB6
3. You will be prompted to pay (if applicable) and enroll in our section.
4. Start working on your assignments :)

Offline Homework: will be assigned as a review before each test. It is not mandatory, but can be helpful as a study tool. If you will decide to turn it in, it will be graded. As a grade you may get either three points on the top of your test score (as an extra credit) or nothing. To get extra credit you will need to provide correct solutions for all problems.

QUIZZES: there will be about 10 quizzes total, some of them may offered in class, other will be “take home” (it will be announced).

TESTING:
TEST 1: Wednesday, March, 3
TEST 2: Wednesday, March, 31
TEST 3: Monday, April, 26
Final EXAM: Monday, May 10 (10:30 am-12:30 pm)

On the test day, you will need to join the online meeting as you would do for the regular class and turn your camera ON. The test will be posted on the Blackboard. You will be given 75 min (class time) to complete the test and upload your work. During the test you may not take breaks, communicate with other people, search Internet, etc. Detailed instructions will be provided before each test and also posted on the Blackboard.

RESOURCES AVAILABLE:
1. If you need help, take advantage of your instructor’s office hours. Do not wait until just before the first test to do so!
2. Form a study group with other students in your class. Explaining solutions to homework problems to each other is a good way to learn.
3. Learning Center online tutoring. When the schedule will become available, I will post it on the Blackboard. You can also follow the link: https://web.ccsu.edu/tlc/tutoring/default.asp
4. A list of private tutors for hire is posted on the Blackboard (see “Start here” folder under the Course Content)

GUIDELINES FOR COURTESY AND RESPECT:
I would like to welcome all students into an environment that creates a sense of community pride, courtesy, and respect; we are here to work cooperatively and to learn together. In order to create a smooth and harmonious learning community, please make every attempt to come to all the class sessions, join each meeting on time, and to stay until the end of the meeting. It is important that we are all able to stay focused on the class lecture/discussion. For this reason, only one student at a time should be speaking in the class. In the same time, everyone is encouraged to post messages in the chat. When I speak, you can interrupt me at any time if you have a question.

Thank you in advance for your cooperation.
SOME PIECES OF ADVICE FOR SUCCESS AND MY EXPECTATIONS OF YOU:

1. Be in class on time, take notes and participate actively.
2. Read the posted class notes and the textbook. Sounds obvious, but I do recommend browsing the section to be covered the night before the class, trying to identify the important points and objectives. Then after class (the same day), look through the covered topics carefully and review/rewrite your class notes.
3. Keep a separate homework notebook.
4. Every hour in class should be accompanied by two hours or so of work outside of class. Some students will require more or less time at various points of the semester.
5. This class will be taught online, so, communication is a key. Stay connected with your instructor and your classmates.
6. Check your university email daily. Login into the Blackboard daily to see new announcements, uploaded course materials, new posts on the discussion board, your grades, etc. Your emails will be answered promptly: you are encouraged to reach out to me with all your questions and concerns. Be proactive!

UNIVERSITY POLICIES:

1. You must take the final examination on Monday, May 10, 10:30 am-12:30 pm.
2. In the event of a weather emergency which requires curtailment or cancellation of classes, listen to WTIC (1080 AM) or call (860) 832-3333 for the “general snow message.”
3. Course Accommodations Policy
   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 in order to arrange your class accommodations.
   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.

4. You are responsible for understanding and abiding by the University’s policy on academic integrity. Information on the policy may be found at http://www.ccsu.edu/AcademicIntegrity/. This policy is rigorously enforced by the Department of Mathematical Sciences.

5. The last day to drop this course without approval is April 19. Before this date, approvals for withdrawal are not required; however, it is strongly recommended that students consult with their academic advisors prior to deciding to withdraw. Cessation of attendance, notice to the instructor, or telephone calls to the Enrollment Center are not considered official notice of a student’s intention to drop the course. After April 19, withdrawals are allowed only under extenuating circumstances and require approval of the course instructor and of the Chair of the Department of Mathematical Sciences.

6. 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 about should contact the Office of 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.
7. Sexual Misconduct, Intimate Partner Violence and Stalking

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 of 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 or jflanagan@ccsu.edu; 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).

GOOD LUCK IN YOUR STUDIES!