

# LEWIS AND CLARK HIGH SCHOOL

521 W. Fourth Ave., Spokane, Washington 99204 354-7000



Congratulations,

Your student has enrolled in the most rigorous high school math class offered in Spokane: AP Calculus BC. Next year will be an exciting time for your student as all the math they have learned culminates into one cohesive study. This college level course covers all single-variable calculus and is equivalent to taking three quarters (two semesters) of college calculus, and (depending on the university) can earn your student credits for the first two quarters of college calculus. Additionally, thanks to the advancements in educational technology, your student has the excellent opportunity to stay current with the essential skills and concepts of calculus before they start the class in the fall. This has never been possible before now; your students are fortunate to have access to so many great, free resources on the internet.

To prepare for this demanding year, your student will be reviewing the calculus they learned during their Honors Pre-Calculus or AP Calculus AB class using Khan Academy. This will help the students stay current, and more importantly, this will allow me to devote extra instructional time to the more complex learning objectives they will encounter before the AP test in May. There will be many difficult topics covered in this course, and having these prerequisite skills mastered at the start of the year will give them a great advantage when learning topics that are more difficult.

This review of calculus content will be administered through Khan Academy. In addition to grading the timely completion of these assignments, I will also be assessing this reviewed content during the second week of school in the fall. All exercise concepts have already been completed during the spring, meaning students will simply revisit and recomplete each exercise again during the summer months. On the back page is a list of the exercises that will be assigned and graded, as well as the recommended completion dates and final graded deadline. Please check with your student periodically to ensure they are completing their required work within the timelines described. It will be the students' responsibility to keep track of, and meet, these deadlines.

Because each exercise set is a review of content already learned, the expected review time for most of these exercise sets will likely average 30 minutes. Students must correctly answer five to ten consecutive questions before the exercise set is considered finished. This proficiency requirement may increase the expected time commitment if students need additional review or practice before they are prepared to answer the required number of questions on their own.

In conclusion, I want to say I am eager to begin working with my AP Calculus BC students and I look forward to a great year together. This review will give your student an advantage by honing their mathematical skills and concepts and lead to a more positive experience, and greater confidence, when learning challenging content next year.

Best Regards,

Megan McLean  
Email: [meganmcl@spokaneschools.org](mailto:meganmcl@spokaneschools.org)

# Summer Review for AP Calculus BC

KA Course Code: 3RPRUA

Each Quiz will be awarded 10 points in the gradebook for Quarter 1 2022. You will receive the % score on each quiz that was your highest score by the drop-dead date.

## Trigonometric Functions Unit – Recommended Completion Date: July 14, 2023

- Quiz 1
  - Unit Circle

## Limits & Continuity Unit – Recommended Completion Date: August 4, 2023

- Quiz 1
  - Defining limits and using limit notation.
  - Estimating limit values from graphs.
  - Estimating limit values from tables.
- Quiz 2
  - Limit Properties.
  - Direct Substitution.
- Quiz 6
  - Intermediate Value Theorem.

## Differentiation: Definition and Basic Derivative Rules Unit – Recommended Completion Date: August 25, 2023

- Quiz 1
  - Defining average and instantaneous rates of change at a point.
  - Defining the derivative of a function and using derivative notation.
  - Estimating derivatives of a function at a point.
  - Connecting differentiability and continuity: determining when derivatives do and do not exist.
- Quiz 2
  - Applying the power rule.
  - Derivative rules: constant, sum, difference, and constant multiple: introduction.
  - Derivative rules: constant, sum, difference, and constant multiple: connecting with the power rule.
- Quiz 3
  - Derivatives of  $\cos(x)$ ,  $\sin(x)$ ,  $e^x$ , and  $\ln(x)$
  - The product rule.
  - The quotient rule.
  - Finding the derivatives of tangent, cotangent, secant, and/or cosecant functions.

Drop-Dead Graded Date: September 11, 2023

## How to Join a Class on Khan Academy

1. Sign into your account. (If you don't have an account you need to create one).
2. Go to your Profile page.
3. Click the "Coaches" tab.
4. In the "Join a Class" box type the code you have been given and click the button "Join the Class."
5. Verify your teacher's name shows up on the right-hand side of the screen under "Coaches."

NOTE: Once you have done this step you can find any tasks assigned under the "assignment" tab. They will not show up until your teacher has verified you are in the class on their dashboard. **If you have done this step after June 20 you will need to contact McLean directly.**