## AP CALCULUS AB <br> REQUIREMENTS AND <br> GRADING RATIONALE

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Introduction: This course is the equivalent of first semester college calculus. All students taking Calculus will be encouraged to take the Advanced Placement Exam. The intent is to establish an intuitive understanding of change and the way Calculus can quantify change. Calculus will be used to predict and explain the behavior of functions. Concepts, results, and problems will be expressed graphically (visually), numerically (via tables), analytically (algebraically), and/or verbally. Students will be encouraged to make connections between these representations. Major units involve functions, graphs, and limits; derivatives and their applications; integrals and their applications; differential equations; and AP exam review.

As a student in Mr. LaChance's class, you are expected to follow these requirements:

- Arrive to class on time. There will be consequences for tardiness, per school policy.
- Sit in your assigned seat.
- Use appropriate language and behavior at all times.
- Follow all school policies, rules, and regulations. Students are responsible for knowing and following the rules listed in the Parent \& Student Handbook.
- Contribute to class discussions.
- Follow the teacher's instructions.
- Respect the teacher, your peers, and yourself.

Consequences resulting from breaking classroom rules include warnings, meetings with the teacher, teacher detentions, office detentions, and referrals to administration. Parents will also be contacted.

Tools: The following tools are required for each day of class:

- 3-ring binder (or folder \& notebook) with completed homework and extra paper
- Pencil
- TI-84 Plus graphing calculator.
[Recommended: TI-84 Plus CE]
Note : The textbook - (Larson, R. \& Edwards, B.H. Calculus AP* Edition, ${ }^{\text {th }}$ ed. 2010.) should be covered if you bring it back and forth to school. There will be a copy in the classroom for you to take a photo of the assigned problems if you wish, so you may leave your book at home.

Grades: Your grade for each quarter will be determined in the following manner:
> Assessments (tests, quizzes, written assignments, projects, and notebook checks) 85\%
$>$ Daily Homework and Classwork 15\%

The first semester grade consists of:
First Quarter 45\%
Second Quarter 45\%
Midterm Exam $\quad \underline{10 \%}$
Total $100 \%$

The second semester grade consists of:
Third Quarter 45\%

Fourth Quarter 45\%
Final Exam $\quad \underline{10 \%}$
Total 100\%

The final year grade consists of 50\% Semester 1 and 50\% Semester 2.

Extra Help: If you fall behind or are confused regarding the concepts covered, you should seek extra help. Extra help is available before and after school, as well as during period(s) when you and Mr. LaChance are free. Please see Mr.
LaChance in advance about when you would like to get extra help.
Mr. LaChance's Usual Availability for Extra Help:
Before school: 6:45 a.m. - 7:15 a.m. Math Office (Rm 214)
Free Period(s) - See Mr. LaChance for availability. Math Office (Rm 214)
After school MWTh: 2:10 p.m. - 3:15 p.m. Math Office (214) or posted location
Assessments: Students will be assessed in a variety of ways. Quizzes and/or Tests will be administered during and at the end of each unit. Quizzes may be announced or unannounced and may include spiral review (previously taught concepts), as well as new material. Written assignments will be assessed when applicable. Other assessments may include performance-based tasks, sample AP free response questions, and sample AP multiple choice questions. You will not be allowed to retake any assessment.

Absences: It is your responsibility to obtain and make up all missed work. If you are absent, find out what work was missed, get notes from a classmate, and hand in the missing assignment(s). The complete Attendance Policy is in the Student Handbook.

Make arrangements with the teacher to make up missed assessments. Assessments missed due to an excused absence must generally be made up within three days of your return to school. Exceptions to this will be at the discretion of the teacher, provided the student has contacted him within three days of their return to school.

Exams: You are expected to take the formal AP Calculus AB Exam. Additional cumulative assessments will be administered as part of the course.

Homework: Homework is a vital part of learning mathematics because it allows you to practice and refine the concepts learned during class. With few exceptions, homework will be assigned during each class period. Homework will be periodically checked and graded for effort/completion. Support work and/or sketches must accompany the answers to all problems in order to be considered complete. Please note that you must check your solutions and revise incorrect responses or work (personal feedback/reflection). This is a required part of each assignment!

Each homework assignment will have the following as a heading:

- Student name - Period - Page number and Exercise numbers
- Date

Late homework may be submitted for half credit if complete with work shown. Late homework should be submitted within a week of the missed assignment.

3-Ring Binder or Folders/Notebook: The purpose of the Notebook is to help you organize the content of this course. It is believed that this organization will help
promote success throughout the year. Notebooks may be assessed during the quarter. Notebook quizzes may be randomly administered.

Notebooks shall contain the following separate sections:
$>$ Grading Rationale: A copy of this document will be the first item in the binder or folder.
$>$ Assessments: All tests, quizzes, writing assignments, projects, and sample AP exam problems will be kept in this section.
$>$ Calculator: All calculator step/usage handouts and notes will be placed here.
$>$ Class Notes/ All class work, explorations, written assignments, notes regarding class Homework: discussion, and homework shall be included in this section. Each day's work should begin on a new sheet of paper with the date and assignment, including section/page numbers and problem numbers at the top, as applicable.
Note: Class Notes/Handouts and Homework may be kept in two separate sections if you wish.

Technology: The Texas Instruments TI-84 Plus graphing calculator will be used regularly to illustrate concepts in this course. Each student should purchase his/her own TI-84 Plus calculator and bring it to class every day. Chromebooks will also be used regularly for demonstrations/analyses and should be brought to class daily.

## Recommended Calculator: TI-84 Plus CE

Communication:
Every student and parent/guardian is welcome to e-mail or call the teacher if questions or concerns arise. In most cases there will be a response within 24 hours (next school day).

## Google Classroom

Mr. LaChance will regularly post videos, links, homework solutions, and other documents on Google Classroom. Access the class via https://classroom.google.com or via an associated app. Homeworks should be submitted here as well.

If you were not automatically added, see Mr. LaChance for the class code.

Class Lesson: Students will engage in active listening, participation, questioning, and clarifying note taking.

Individual Practice: Students will actively participate in class work and homework determining questions to be asked.

Correction of Work: Students will actively participate in correction of homework, quizzes and tests to create valuable documents for studying and review.

Studying: Students will review and practice prior to tests and quizzes.
Critical Thinking: Students will engage in critical thinking through labs and analytical/technical assignments.

## AP Calculus AB Course Agreement

Student's Name: $\qquad$
Class/Period: $\qquad$

Please complete, sign and return this course agreement with both student and parent/guardian signatures.
I, $\qquad$ agree to abide by the course requirements described above in Mr. (print student's name)

LaChance's mathematics course. I understand that significant effort will be required to be successful in AP Calculus.
$\qquad$ Date $\qquad$

Parent/Guardian Signature $\qquad$ Date $\qquad$
Parent/Guardian Name $\qquad$
Parent/Guardian Contact Information:
Tel. (Home): $\qquad$
Tel. (Cell. Or Work): $\qquad$
E-mail Address: $\qquad$

