

# Singapore American School High School Syllabus

## AP® BC Calculus

### **Instructor Details:** Meet our AP Calculus BC Teaching Team!

Genevieve Knaus (H318) [gknaus@sas.edu.sg](mailto:gknaus@sas.edu.sg) 2nd year at SAS. She has taught either AP® Calculus or IB HL mathematics since 2006. Also a cat lover, foodie, nature seeker, leisure rubik's cuber, music maker, and former lindy hopper.

**Office Hours:** Thursday Flex 7:45 - 8:25 and after school by appointment.

Darlene Poluan (H318) [dpoluan@sas.edu.sg](mailto:dpoluan@sas.edu.sg) 14th year at SAS. She has taught AP® Calculus on-and-off since she first started teaching 17 years ago. Click [here](#) for DP's class calendar.

**Office Hours:** Tuesdays from 3:15 - 4:30 in H311, send emails as needed to schedule appointments or send Google calendar invites to meet before, during, or after school.

Tim Zitir (H210) [tzitir@sas.edu.sg](mailto:tzitir@sas.edu.sg) 27th year at SAS. He has taught AP® Calculus for 29 years. He is or has been an AP® Reader, table leader, question team invitee and College Board Consultant for AP® Calculus.

**Office hours:** (email to confirm or just drop in): First Sem A1, B3 and B4 (First 30 minutes of my prep is preferred) Second Sem 2 A3, A4 and B3. Thursday Flex may work too.

All teachers are available and very willing to help. You may contact any one of the teachers above for support should you need it. The High School [Math Center](#) on the second floor of the library is also available to help all students Monday through Friday from 7:30 a.m. to 4:00 p.m.

### **Course Description:**

AP Calculus BC- This fast paced course covers topics typically found in a first full year calculus course at U.S. universities. After covering limits, continuity, differentiation, and integration, several applications of each are dealt with. Sequences and series, vectors, polar and parametric equations will be the major difference between BC (this course) and AB. This course requires a solid pre-calculus background, as well as picking up material at a decently fast pace. The Calculus AB Curriculum will be finished within the first semester. Successful performance on the AP exam (4 or 5) will be honored at most universities in the US for a full year of Calculus, while a 3 may earn credit for the AB portion, which is equivalent to the first semester of college credit. [Look up the schools](#) that you are interested in and find out!

### **Standards for Reporting:**

<b><u>Semester 1:</u></b> Limits - 30% Change - 35% Analysis of Functions - 35%  Semester 1 grades will be broken down into two quarter grades based on the above standards breakdown. The second quarter will have slightly heavier weighting than the first quarter. <b><u>*The PowerSchool dates for Summative Assignments will not be correct. Refer to Schoology for the correct dates.</u></b>	<b><u>Semester 2:</u></b> Limits - 40% Change - 20% Analysis of Functions - 20% Culmination and Synthesis - 15% Final Project - 5%  A mock exam will be in the last week of April. <a href="#">Full Listing of Summative assessments</a> and weightings of assignments, which are also in powerschool.
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### **Formative vs. Summative:**

Formative feedback will not be counted as a grade on PowerSchool. This includes, but not limited to, homework and in-class formative assessments, such as warm-up, launch activities, cool downs, and exit tickets. In order to provide students with on-time, specific, and constructive feedback, students are encouraged to complete their homework and in-class formative assessments as best as they can.

There will be nine short (at most twenty minutes) summative assessments and one quarter exam each quarter. These assessments will be counted as a grade on PowerSchool. Short summative assessments may be exempted **if you complete your homework in a timely manner**, and quarter exams are opportunities for reassessments of the standards. The short summative assessments can be exempted by a higher grade on the quarter exam, broken out by standard. Up to 50% of the assessments may be exempted per quarter, by standard. The gradebook closes each quarter after the exceptions have been done. **For example: We will keep the majority of quizzes, including the quarter exam grade. For instance, limits in the second semester had 5 quizzes and 1 standards test. We will count two down to quizzes and the quarter test grade. Count 3/6. Sequencing- we exempt the earliest quizzes first.**

### **Required Course Materials:**

- *Calculus Extended* by Shaw and Taylor
- AP® Classroom. Progress Self Checks and practice are available.
- Optional- Khan Academy AP® Calculus Supplements
- Gary Taylor video notes by Tim Zitour
- TI Nspire CX
- Laptop

### **General Course Policies:**

This is **our classroom** and both you and I have responsibilities and expectations to meet. It is a classroom where we are free to share our ideas and thoughts. There are times when we will work individually, in pairs, small groups and as a whole class. The SAS Core Values, *Respect, Responsibility, Honesty, Compassion, Honesty and Fairness* will guide our behavior at SAS and in our classroom. I do expect that you will work with all students and put forth your best effort at all times.

Laptops may be used in class as a TOOL for learning. At all times, students are expected to adhere to the school's technology Digital Citizenship Agreement. In addition, while in class, students will use the computer ONLY when instructed to do so, and use only applications or websites which relate to the task at hand. Using a computer inappropriately will result in, at the teacher's discretion, consequences which may include: a warning, loss of computer privileges for some period of time, or referral to administration.

Students also must have their own calculator. Sharing calculators during assessments is not allowed.

**Phone Usage:** Phones may only be used with permission from the teacher. Phones may be taken away if used for texting, photos, etc. in class. Teachers may ask you to store your calculator during class.

**Bathroom usage:** Please let me know if you want to use the bathroom. Leaving without the teacher knowing is inappropriate.

### **Tech Integration:**

- **Book Problems** - Problems will be in the packet that you are given. You will work on another piece of paper, but you can take notes in the book. A digital copy is also in the student folder.

- Schoology will be the place for your calendar items, as well as the Zitrus AP Calculus BC [website](#), DP's [class calendar](#) or Ms. Knaus' [class calendar](#).
- Lessons and Video Lessons can be found at [BC Website](#)

**Absences:**

The AP Calculus BC PLC believes that regular class attendance is an important part of the learning process, and we highly encourage students to attend class regularly. However, we recognize that students may be absent due to illness and/or school-sponsored activities. Students are responsible for missed work and lessons, which can be found on the website/Schoology/class calendar.

If the student is absent for an assessment, this must be made up by the next class meeting or sooner. The scores for **two** make-up assessments will be counted towards the grade. After two absences on assessment days, the make-up assessments will be automatically exempted. As for quarter exams, your attendance is mandatory. Unusual circumstances will be dealt with on a case by case basis, so talk to your teacher or email them if you have concerns.

**Alternative Credit or Mastery Policy:**

As per the High School Grading Policy extra credit is **NOT** given. Please see the Formative vs. Summative section above for further information about mastery policy.

**Academic Integrity Violations:**

The student will receive a 0 (no credit) on the assessment and the parents and administration will be notified. Handbook policy governs all acts of Academic Integrity Violations and therefore additional consequences may be administered. Students will lose exemptions for that standard as well.