

AP Calculus BC
Bradshaw
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Summer Assignment

1. Watch the introduction video. <https://www.youtube.com/watch?v=tg0TZORoNIw>
2. View the remaining portion of the PowerPoint not covered in the video.
3. Read and sign the syllabus. Bring a hard copy of the last page to the first day of class signed by you and your parents.
4. Print out and complete the “Summer Assignment”, 20 basic math questions.
(The PDF included in this folder entitled Summer Assignment)
*You **DO NOT** need to complete the “Placement Exam”. That is simply to help you decide if this is the right class for you.

5. Objectives of mathematics with which you should be familiar:

(Meaning, concepts that will not be covered in class that are needed for success. I am very willing to help with these concepts but would need to do so during office hours outside of regular class time.)

a. Knowledge of mathematics terms *(Meaning if I use the word integer or polynomial function, I expect you to understand the difference between an integer and a rational or irrational number and the difference between a polynomial function and a rational or exponential function.)*

b. Basic algebra, geometry, and trigonometry skills *(Meaning the ability to factor polynomial and rational functions, solve equations using inverse operations, graph on the coordinate plane, as well as a basic knowledge of area formulas, theorems regarding triangles and circles, the unit circle and the basic trigonometric functions and their identities.)*

c. The ability to use and understand mathematical notation *(Meaning function notation, interval notation etc.)*

d. Basic problem-solving skills *(Meaning the ability to read a problem, isolate the important information, develop a plan, write and solve an equation and interpret the results.)*

***e.** “Proficient” on the TI 84 Graphing calculator *(Alpha shortcuts, Calc menu, max, min, solve, etc. The TI Inspire is acceptable but class will be taught on the 84.)* The “*” is due to the fact that many students have come to class lacking this ability. Take time this summer to become proficient.

6. Google the following terms and be prepared to discuss your findings on the first day of class.

- a.** The fundamental theorem of algebra.
- b.** Continuous and discontinuous functions.
- c.** The limit of a function.
- d.** The four basic representations of a mathematics problem, analytical, graphical, numerical, and verbal.
- e.** The domain, range, maximum, minimum, and inverse of a function.
- f.** Increasing and decreasing functions.

7. Materials:

- a.** Textbook: You will be “creating” a “handbook” as we cover each objective. The textbook listed in the syllabus is “not required”.
- b.** 3 ring binder: While not a requirement, almost all students chose to print each unit of the “handbook” and produce a physical copy which becomes their “textbook”.
- c.** Graphing calculator: All students must bring a graphing calculator to class each day. The TI 84 Ce plus will be used in class. The TI Inspire and other calculators are acceptable, but you will not receive assistance with keystrokes during class.
- d.** Blackbaud and AP classroom: Once registered at IMG you will need to become familiar with your Blackbaud account. All assignments and materials, PowerPoints, Handbook, Worksheets etc. will be found under the assignment tab for each class. You will also need an AP classroom account.

Once you have made it through these seven items you will be ready for class. I look forward to meeting you this fall.