**General Class Rules and Expectations**
**Courses: PreCalculus, Calculus, Physics, and all of my other misc. courses.**
**Instructor: David Iverson**

•Be on time. I have budgeted the entire class time as learning time.
•Leave conversations at the door.
•If you arrive late, do so quietly, draw minimal attention to yourself, integrate quickly into class.
•If you need to use the bathroom, do so quietly, draw minimal attention to yourself.
•Plan to work through to the last minute of the class.
•Remind me if I miss the end of the class time.

Chronically late students may be assigned pushups at my discretion. Typical is five per minute late. This may be adjusted up or down based on the severity and persistence of the situation.

Class time will be divided approximately equally between three modes of learning.
•One third of the time will be spent on whole class problem solving and discussion. During this time I will expect every student present in class to work in a coordinated manner with the entire class. Active listening is critical. All students will be expected to participate by speaking and working at the board.
•Another third of the time will be spent on small group work. During this time you will have more freedom to choose whom you work with and on what.
•The final third of class time will be spent on hands-on activities and projects during which all students will be expected to work collaboratively within their group to accomplish the activity that has been assigned.

At the start of each week, I will provide you with on outline of how the next few classes will be structured. At the beginning of class, I will provide you with an agenda for the day.

Very little class time will be spent on direct instruction or lecture. Watching video lectures and reading will be critically important components of your homework assignments. My classes are "inverted" from typical math and science classes. In a traditional course the teacher lectures during class and the students solve problems for homework. In my classes the lectures are the homework assignments and class time is spent solving problems.

My written evaluation of your performance in the class will focus on your class participation, your homework completion and the comprehension of the material that you demonstrate in class and on your homework.

Active participation in class is the major point of evaluation. The value of developing cooperative learning skills cannot be undervalued. I will expect all students to participate in the process of solving math problems. This will include verbally contributing your ideas, correcting the mistakes of others in a supportive and constructive manner, producing written solutions to problems at the white-board in front of the class, and finally, being attentive and responsive to the contributions made by other members of the class.

Developing the ability to learn cooperatively is essential to your success. I expect every student to actively work with every other student, and to believe in their potential for academic growth and success. Every student should look outside of themselves and identify the students in the class who are confused, discouraged, and checked-out. Each student should work to find supportive and productive ways to include and encourage these students and to light their way to understanding. Something as simple as giving reluctant participants the time and space they need to become comfortable participants can go a very long way.

Many times, amazing observations and insights come from unexpected sources. The student

who wishes to get the most out of their education is wise to constantly monitor the contributions of their peers. Deep thoughts are often lurking within tentative and partial statements and questions.

You will be given time to work in small groups of your choosing. There is a huge temptation for teenagers to use at least part of this time as social time. My expectation is that you will use every minute of this time working productively with your fellow group members. Staying focussed, and on task, while working with peers under minimal supervision is a skill that you will find essential in many aspects of your life.

I will occasionally assign students to specific small groups in order to discourage the development of cliques, and to expose each student to the unique and valuable insights and learning styles embodied by every student in the class.

Consistent, accurate and complete homework is the second point of evaluation. I expect that every student has the ability to improve the quality of their homework over the course of this year. I will be giving you individual feedback on specific avenues of improvement.

Homework should be on clean, flat paper. I prefer paper that has four clean edges. Engineering paper is recommended. Graph paper is often desirable.

The top of each page should contain a heading that clearly identifies your name, the course, the assignment that is completed on that page, as well as the date that it was completed.

All problems should appear in numerical order.

White space and margins should be respected. That is, each individual problem should have an area of empty space around it that sets it off from other problems. The page should have a clear border of empty space all of the way around.

Homework is not collected on a daily basis. However, it should be completed on a daily basis. I allow you wiggle room to fit your homework in with the rest of your schedule. However, abusing this privilege will lead to poor educational outcomes, elevated stress and poor evaluations.

Typically, homework will be collected every 8 - 10 class meetings, at convenient transition points in the syllabus. I will then construct a written evaluation of that work. Those unit-evaluations will serve as the basis for my more official Progress Reports and Semester Evaluations.

Learning is an ongoing and cyclical process. In the past, you may have survived in school by using a two step process where you receive information from the teacher, and then you complete an assignment. I demand a much more flexible and multi-faceted approach to learning. In addition to those two steps, I will expect you to look ahead, and preview what is coming in the next class. I will also expect you to go back and revise previously completed work in order to clarify and expand your understanding.

Different students will solve different numbers of problems in different amounts of time. There is no one single standard for all students on how many problems they must solve each night. Instead, I expect maximum effort within the time limits available to you. I believe that maximum effort will generate homework and comprehension that is more than acceptable.

If you claim that you could not do the work, I will expect written evidence of your effort. This could be in the form of written notes on material in the textbook or videos. This should include partial solutions to problems that were attempted. In the absence of written evidence of effort, I will not believe that that effort occurred.

Being completely honest with me, and yourself, about how much effort and resources you have devoted to an assignment will help you to a positive outcome.

Email is the best way to contact me if you cannot find me. diverson@burkemtnacademy.org, davidiverson3000@gmail.com and bmaphysics@gmail.com all go to the same place. The BMA email server tends to have occasional reliability issues.

I am available for extra-help and check-in sessions at almost any time that I am not in a scheduled class or an appointment.

Scheduled lab periods will be optional extra-help sessions. I am also available by appointment after dinner most nights, during most weekends, and during most athletic training blocks.

Small group time in class will also be one-on-one check-in time. I will frequently pull individuals into my office for quick chats for discussing how you are doing and what your goals and plans are for improvement.

This course has a website with useful information:
PreCalculus: http://bmaprecalculus.net
Calculus: http://bmacalculus.net
Physics: http://bmaphysics.net
Digital Circuits: http://bmaphysics.net/digital

Teenagers have more skill and guile in concealing their off-track behavior than I have in detecting that behavior. I typically will be the last person in class to notice. Please just don't do it.

My hearing is also more limited that that of a teenager. Please understand that if you sit in the back of the room, you may say something great, that the back of the room hears, but I won't. Please speak up even when you are very unsure of yourself.

If I appear to be checked-out from class (working on my computer, head-down and writing, etc.) it is most likely that I am attempting to move your attention off of me and onto your peers.

What to bring to every class:
Pencil (every other writing implement is inferior in math/science classes)
Eraser
Paper (engineering paper recommended, graph paper helpful)
Calculator
Textbook
Syllabus
Math Reference
All unevaluated work that you have done.

My preferred method of organization is a 3-Ring Binder.

Seven Critical Needs that must be met before you can learn: Oxygen, Water, Urination, Sleep, Food, Defecation, Thermal Regulation. Please ensure that these needs have been met properly before coming to class.

Learning Math is like Lifting Weights. Few make a living at it. Lots of people benefit from doing it. More people should do it.

Creating and Respecting Spaces: Beds are for sleeping. Student Lounge is for goofing. Library is for studying. Classes are for studying. Develop the routine that something switches inside you when you enter the classroom.