

# **Menlo School US Mathematics Department**

Elective Course Information from the Student Perspective, 2017

The comments below were taken from student surveys conducted the week of February 22. Please keep the ratings score in context, for example, Sophomores might consider a class or assignment as more rigorous than a Senior.

Jump directly Introduction to Computer Programming

to: Advanced Placement Computer Science Advanced Topics in Computer Science Statistics Advanced Placement Statistics Introduction to Calculus with Applications Advanced Placement Calculus AB Advanced Placement Calculus BC Advanced Topics in Mathematics

Introduction to Computer	Instructors: Casey McCullough &
Programming	Richard Steinberg

What should a student know that's NOT in the course description:

You are free to create projects with your own twists and every project is a lot of fun to make.

It's challenging and engaging for many different types of students.

The class is extremely project oriented but also features unit exams, similar to many core classes.

I would recommend this course to students who...

are interested in creating games in programming and like to be challenged.

are willing to collaborate with other classmates and ask questions to the instructor

are interested in learning more about computers, enjoy problem solving, and are willing to put in a little extra work.

I would NOT recommend this course to students who...

give up as soon as they think something is "hard."

feel obligated to learn computer science.

need to be told how to do things and don't want to try and figure things out by themselves.

Highlights from the course and/or specific skills that I learned:

I love the freedom to make any code that we want especially when we began learning about for-loops, we had tons of freedom.

I had never even considered coding before this class, but overall I just think it's really cool what you can do with Java and Eclipse.

I think the coolest thing about the course is looking at an app you're using on your phone or something and realizing that you know how that was coded.

Average "Academic Rigor" Rating (1-5):	Average "Amount of Homework" Rating (1-5):
3.44	2.3

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Advanced Placement Computer	Instructors: Richard Steinberg &
Science	Michael Thibodeaux

What should a student know that's NOT in the course description:

They should know that it is very fun, and even if you are not thinking of becoming of computer science major it is still a great class and worthwhile.

This class is more conceptual than technical in terms of learning programming. A common misconception is that the course in on java, but it truly is more about computer science as a science than coding itself.

The workload is not high, but the rigor is challenging. You must have a strong grasp on problem solving skills; the class is not completely reliant on comfort with coding. I would recommend this course to students who...

have a strong interest in computer science and want to learn what is "beneath the surface" of coding. (More theory, how to improve efficiency, how computers store data, etc)

Like to solve puzzles or complex problems, are very tenacious, and want to have a strong background in computer science.

Enjoy programming, and are interested in bettering their knowledge of computer sciences, or are simply people that want to know more about something that is going to become increasingly important in our lives.

I would NOT recommend this course to students who...

Aren't interested in computer science but think they "should" take it.

If the only thing you like with comp sci is game making or silly programs then this course likely won't be fun.

I would not recommend this course to students that are not willing to challenge themselves.

Highlights from the course and/or specific skills that I learned:

I have become a much better problem solver, mainly because I now approach problems with a better perspective and strategy

I learned how to really understand my programs, write more efficient programs, and utilize more complex algorithms and methods to create more complicated programs.

Analyzing and comparing sorting algorithms for speed and efficiency is interesting. Recursion is interesting. Pointers are interesting, everything is interesting.

Other comments:

I came into this class with no computer science background or any knowledge of coding. I did the three day summer "computer camp" designed to help students jump directly into the Menlo AP Comp Sci class and I was very prepared.

AP CS class is often the highlight of my day. The teachers make hard concepts very understandable and the programs they assign us give us hands-on coding experience.

	Average "Amount of Homework" Rating (1-5):
3.5	1.9

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Advanced Topics in Computer Science	Instructor: William Cesarotti
What should a student know that's NOT in the course description:	
It's a lot of work but really really fun and you learn a lot.	
This class does require a good deal aren't maximizing class time.	of effort and can be overwhelming at times if you
I would recommend this course to students	who
are willing to learn new languages e	ven if it means struggling a bit in the beginning.
Really love coding and want a solid base from which they could practically use CS beyond the classroom	
I would NOT recommend this course to stu	dents who
aren't truly interested in Computer S	cience.
will take CS as a breeze class like it might have been for them in the past	
Highlights from the course and/or specific s	skills that I learned:
Learning how to code apps.	
Average "Academic Rigor" Rating (1-5): 3.67	Average "Amount of Homework" Rating (1-5): 3.5

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Statistics	Instructor: Amber Corcoran
What should a student know that's NOT in the course description	on:

This course is not only numbers, there are a lot of word problems.

You will definitely be prepared for a college Statistics course. You can take this course as your math class but it is not a ton of new formulas, so just paying attention and completing the assignments on time keeps you on track in this class.

The workload is very similar to other math classes.

I would recommend this course to students who...

like math classes that have large real world applications.

want a change from algebra, are interested in math's relation to current events

Who want to extend their math skills past a normal math class.

I would NOT recommend this course to students who...

Do not study for tests, since to do well in this class, you really have to review because all the information is based on stuff we learned in class that requires specific knowledge.

think this is a "senior class." That is, if you are looking for a class this is easy or doesn't require work, don't take this class.

Highlights from the course and/or specific skills that I learned:

It's generally a good skill to have. It's useful in science, deciding if your experiment actually worked, or if it was by chance etc...

I really liked how what we learned was applicable to life outside of the classroom more than in other math classes.

Yeah I learned a lot about how to apply mathematics and statistics to cool real world uses.

Average "Academic Rigor" Rating (1-5):	Average "Amount of Homework" Rating (1-5):
3.2	3.2

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Instructor: Lauren Lax

What should a student know that's NOT in the course description:

Stats requires you to be really proactive about your studies because there's no nightly homework. So if you're someone who really needs a lot of practice to nail a topic, you have to space it out for yourself.

It's an extremely fun and interesting class, that although it can be daunting, is definitely worth taking.

I would recommend this course to students that...

Like math but also like logic problems. Also to anyone that wants to learn some math that is applicable to the real world.

challenge themselves to understand things thoroughly rather than just memorizing equations.

I would NOT recommend this course to students that...

struggle greatly in the face of less structured math (i.e. formulas and direct ways to attack certain problems)

just want another AP. If you're not interested in statistics/statistics in the real world, don't take this class.

Highlights from the course and/or specific skills that I learned:

I really like that this class has taught me that I need to be skeptical of most things I see in the media. This class has made me more informed about the information that I am told each day.

I learned a lot of skills that have translated over into many classes, these being (but not limited to) graphing, r^2 values, probability, and confidence intervals.

Average "Academic Rigor" Rating (1-5):	Average "Amount of Homework" Rating (1-5):
3.74	1.4

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Introduction to Calculus with Applications	Instructor: Leanne Rouser
What should a student know that's NOT in the course description:	

Ms. Rouser is a great teacher, as long as you stay on top of the homework

If you do your homework and pay attention in class, you will have the tools to do well in the class. Every class is very organized and allows time to do hw in class.

It's a lot of fun!

Ms. Rouser is a very engaging teacher.

I would recommend this course to students that...

Did well in POP and want a class with roughly the same caliber of difficulty.

wants to fully understand concepts at a manageable pace.

enjoy math in a low-stress environment, and who want to learn a lot!.

want to get better at math with a great teacher.

are willing to work for a grade they deserve.

enjoy math and want to continue building off of what you learned junior year.

I would NOT recommend this course to students that...

don't like doing homework.

For students who will not take this class serious.

want to be thrown into concepts without any teaching

*Highlights from the course and/or specific skills that I learned:* 

I have learned a lot about calculus and it's many real world applications.

All the different analogies Ms. Rouser uses to explain problems!

Other comments:

I love this class!!! I'm not a huge fan of math, but pre-calculus and calculus with Ms. Rouser have been some of my favorite classes at Menlo. She's an amazing teacher without making the course too stressful and she makes class fun/engaging every day.

Average "Academic Rigor" Rating (1-5):	Average "Amount of Homework" Rating (1-5): 3
3.2	

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## AP Calculus AB

Instructor: Henry Klee

What should a student know that's NOT in the course description:

It is a course that will expand your understanding of mathematics and will show you how many parts of math can be applied or seen in situations outside of a standard math class.

Students should know that a lot of the concepts won't come easily at first and that there are lots of test and quizzes to make sure you are keeping up with the material.

It is a do-able class compared to Analytic Pre-calculus, so students should not be deterred from taking the class even if they didn't do so well in Analytic

I would recommend this course to students who...

have an interest in thinking abstractly and are willing to be challenged academically.

have an interest and desire to push themselves in math, while remaining in a fun environment.

like math and can stay organized and on top of their work.

I would NOT recommend this course to students who...

Get frustrated easily when faced with problems you don't know how to solve.

Are unorganized and don't enjoy math.

are willing to keep up with homework and meet with the Mr. Klee is he/she is confused by something.

Highlights from the course and/or specific skills that I learned:

Being able to use shortcuts to solve very challenging and long problems that otherwise would have taken hours.

I learned how to recognize certain types of problems, and deepened my understanding of the concepts I learned in Pre-calculus

Other comments:

This is my favorite math class I have taken during my time at Menlo.

Average "Academic Rigor" Rating (1-5):	Average "Amount of Homework" Rating (1-5):
3.5	3.4

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## AP Calculus BC

#### Instructor: Michael Thibodeaux

What should a student know that's NOT in the course description:

It's more like a college class in that there are lots of engaging lectures and proofs, with more practice concentrated outside of class.

This class is focused on learning and understanding the material instead of just memorizing something for a test.

It builds on a lot of the information you learn in pre-calculus and teaches you about how Calculus is related to the real world (for example, in physics).

I would recommend this course to students who...

Love math and want to laugh in class

have genuine interest in math and who want to dig deeper into harder concepts.

like math, and like problem solving with real world applications.

I would NOT recommend this course to students who...

Don't enjoy working in groups and working out hard problems

are used to memorizing concepts rather than understanding them.

Don't like math and don't want to be challenged.

Highlights from the course and/or specific skills that I learned:

Being with friends and feeling like I'm learning a whole new part of math.

The day we learned about the fundamental theorem of calculus.

Calculus! You'll need everything you learn here for physics, engineering, and econ in college.

Average "Academic Rigor" Rating (1-5):	Average "Amount of Homework" Rating (1-5):
3.5	2.5

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Advanced To	opics in	<b>Mathematics</b>

What should a student know that's NOT in the course description:

The topics you will cover are truly captivating. You will study things you did not know were even possible topics of inquiry.

This is really a chance to get an introduction to math you will be doing later in your life. It is a nice culmination of Menlo math because it uses different kinds of math from all of our preceding classes at Menlo.

I would recommend this course to students that...

love math and want to continue to explore topics that will be presented in college.

enjoy problem solving in a broad sense. This is an engaging class for anyone who is open to struggle at first and then master advanced concepts.

I would NOT recommend this course to students that...

do not have a passion for math.

Highlights from the course and/or specific skills that I learned:

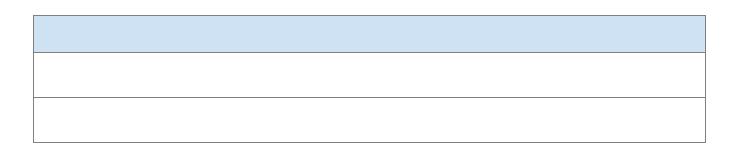
Honestly everyday my mind is blown so my most recent highlight was probably class today.

I loved the course material and thought the information learned was fascinating and really cool.

First, I love having another class with Ms. Lax. I have also learned how to better problem solve. Most of the topics we have covered are completely new and abstract, and this has forced me to become a better problem solver.

Average "Academic Rigor" Rating (1-5):	Average "Amount of Homework" Rating (1-5): 1
3.75	

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