



AP Computer Science

Who should take AP Computer Science?

Students interested in computer science, STEM fields, business, Linguistics, Web Development, and those that are curious and want to try something challenging.

What will I learn?

Students will learn the types of problems that can be modeled using programming. Using the Java programming language students will create classes consisting of variables, methods, branching, loops, and recursion. Data representations using arrays, Lists, and Objects will be explored. Algorithms and their trade-offs will be used in the solution of problems. Problem solving will be emphasized throughout.

The Future is Bright!

Money Magazine/CNN rates the top careers considering: pay, growth over 10%, require a bachelor degree, did well during the current recession, flexibility, stress, and personal satisfaction.

1. **Software Architect**, 2. Physician Assistant, 3. Management Consultant, 4. Physical Therapist, 5. Environmental Engineer, 6. Civil Engineer, 7. **Database Administrator**, 8. Sales Director, 9. Certified Public Accountant, 10. Biomedical Engineer.

And there are more jobs than graduates!

Projected Job Openings vs. College Graduates through 2008 - 2018

	Total Jobs	Average Jobs Openings/Year	Average Graduates/Year	
Engineering	531,300 Jobs	53,100	67,045	-13,945
Computer Science	1,440,500 Jobs	144,050	47,480	96,570
Mathematics	56,900 Jobs	5,690	14,770	-9,080
Life Sciences	143,700 Jobs	14,370	69,178	-54,808
Physical Sciences	123,000 Jobs	12,300	20,318	-10,269

Computer Science is becoming more interdisciplinary.

Combine computer science (CS) with another degree and you are extremely marketable!

Bioinformatics (biology + CS), chemistry _ CS, physics _ CS, business + CSS, ...
The fields that use computer science are increasing all the time!

Some Comments from Former Students

“I'm not sure if you ever get students saying “when will I use this?!” , but certainly it is used, and you may feel free to refer them to me when they ask. Also, I really want to thank you for sparking my interest in CS, because it certainly pays well. As a mere summer intern, I'm being paid more than \$20 per hour. Anyhow, I just really wanted to thank you for your classes, all those years ago. I hope you are well!”

“I'm now a researcher at the CSU Human Controlled Interfaces Lab. I will be researching and designing hardware and software to make computers and computer based learning more accessible to blind people...Thanks to my AP experience I'm now a TA in the introductions to Java course here, which most of the students are a year ahead of me in...That freshman introductory class changed the course of my life in wonderful ways that I will never be able to thank you enough for. I would love if you friended me on facebook”

“I wanted to send you an email to thank you for your excellent tutelage several years ago in Conifer's AP Comp Sci classes. The knowledge I gained from you in those courses have not only allowed me to by-pass several classes here at Vanderbilt, but they have also made even my 200 level classes much much easier. In my Discrete mathematics classes we're going over boolean types, binary, and today started on DeMorgan's Law, all of which you taught us ages ago. (don't tell my professor, but you also taught it much better. Half the class is still really” confused.)

“I got very lucky and ended up in a great company. I've come a long way since AP Computer Science! I don't know if I ever told you, but a large portion of my Data Structures class ended up being review of the extra stuff you taught us in APCS. I appreciate the extra effort you put into teaching above and beyond the standard curriculum.”

“The internship experience was literally incredible though! I ended up working on Brave which comes out next summer. I worked in the GTCR department, or Global Technology, Crowds, and Rendering which is really three departments but combined for this film because of certain challenges it has. I worked a lot on making the rendering efficient and building neat tools for the production to be used by other departments...I also wanted to tell you this because I think you would get a kick out of it. When I was leaving I had to train an incoming intern on some of the things I was working on while I was there. He was doing a 3 month summer internship as apposed to the 6 like I did. He was currently working on his Masters in Computer Science at Harvard.”