Jacob Poole
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Honors Software Development Internship
Semester 1/2
2022-2023

Course Information:

CTE Course Industry Sector & Career Pathway:
Information & Communication Technology - Software & System Development
Class Schedule: Period 1 - 8:30-10:05am
Grades: 10-12
Course Hours: 2 Semesters, 360 Hours
Course Credit: 5 Credits/Semester

Course Overview:

Previously, this course was designed around independent, project based learning. Students would work on projects throughout the year to expand their knowledge along with hopefully having a customer. Customers would create requirements and expectations for students to complete similar to real world projects.

This year, I've slightly redesigned this course. Our goal is to develop you further beyond what you've learned in AP Computer Science. So far you've learned how to program, this year you are going to learn why we use what we use and the reasoning behind what to use when given a set of requirements. My goal is to give you the knowledge you need to know to get a software internship over the following summer.

This course will be centered around four college courses. These are: Data Structures and Algorithms, Logic and Discrete Mathematics, Computer Architecture, and Software Construction.

How to find Success in this Course:

1. **Be Curious.**
2. **Make friends!**
   a. Like any course, it's hard to get through alone. I encourage collaborative work for better understanding!
3. **Be an expert!**
   a. You have an opportunity to explore something new, be the expert in a new technology!

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Resources for Success in this Course:

1. Class Textbook
2. Class website
3. Google Classroom
4. Yearlong schedule of lecture, homework, and quizzes.
5. AWS Cloud 9 IDE
6. AP Classroom Lectures and Videos

Optional external help:

- Google
- Codecademy
- Stack Overflow - Make sure you learn how to use and read a post.

Books that this course is based around:

- Zybooks, Data Structures Essentials with Java Examples
- Computer Organization and Design, 5th Edition, Patterson and Hennessy
- Zybooks, Discrete Mathematics
- Zybooks, Introduction to Computer Systems and Assembly Programming (little)

Recommended Materials:

Listed below are recommended materials for students taking *Honors Software Development Internship*. These materials are not required, and full participation in the course does not require the purchase of any of these materials. State law requires us to provide a public education free of charge. Subject to certain exceptions, the right to a free public education means we cannot require students or their families to purchase materials, supplies, equipment or uniforms for any school activity, to pay security deposits for access, participation, materials, or equipment, or to make donations to a class, activity or program.

Recommended Materials:

- Laptop of your choice
    - District provided Chromebook is completely acceptable and accessible

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Teacher Philosophy: I am here to help you learn! The more time you put in, the more I can help you. This subject is such a fascinating area of study and can benefit you anywhere you want to go. So why not learn a little! :D

CV School Wide Behavior Expectations, Academic Honesty, and Discipline Policies may be found here:
https://www.gusd.net/domain/1302 or scan the QR Code below.

CV Policies: School policies are distributed to all families at the beginning of the year, and are also available in the Parent/Student Handbook on the school website: www.cvhsfalcons.com

PBIS The Falcon Way: (Suggestion: Instead of a long list of Do Not's, share a short list of expectations positively framed --for example: Be Safe, Be Respectful, Be Responsible. Provide a few examples of what this may look like in your class.)

Behavior:
Students are expected to show respect to me and their peers. Examples of misbehavior are (but not limited to):
1. Bullying another student
2. Cheating - talking during a quiz, looking up quiz information
3. Cheating - copying labs from a neighbor
4. Removing/altering files from another student's work
5. Inappropriate use of photographs or language

Any "Cheating" violations will, at a minimum, result in the student's grade being determined solely by their quiz average.

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CTE Program Technology Statement:

The CTE lab features several expensive and irreplaceable pieces of equipment, tools, technology, and materials. Students are incredibly fortunate to have access to this type of equipment at the middle and high school levels. ALL lab equipment must be respected and cared for at all times. Work areas must be cleaned up and materials returned to their proper locations near the conclusion of each class period. All materials and equipment checked out to students for use at home or at school must be checked back in the same condition as when it was received. Accidental damage to lab equipment must be reported to the instructor immediately. Students should immediately report accidental damage, as there are no consequences for true accidents in the lab. Accidents do happen unexpectedly on occasion and are part of the learning process. However, students found to be deliberately damaging, abusing, defacing, vandalizing, or stealing materials, tools, and/or equipment will be responsible for reparation equal to the current replacement cost of the materials (BP 6161.2). To preserve the longevity of the lab equipment and the program, there is no tolerance for students who do not respect and care for the lab equipment, as they take away opportunities from deserving students.

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Grading:

Project - 50%

This course will be designed around the **Agile lifecycle**. We will go through **two week sprints**. Students will plan user-oriented tasks to complete over the two weeks where they will then review and re-plan for the next sprint. This process allows for review and incremental design of projects. Students will be graded on how closely they follow this lifecycle and use it to their benefit.

Knowledge Development - 30%

Students will grow their knowledge through labs similar to AP Computer Science A. Students should also focus on applying what they have learned through projects, hackathons, or competitions.

Sharing Learning - 10%

Students will be encouraged to share what they have learned. This both helps them master the material they share along with receiving insight from fellow peers. This is great practice for open-sourcing projects. Students will be asked to share via presentation, videos, online blogs and many other avenues.

Internship Hunt - 10%

With the goal of getting students prepared for an internship, we should practice applying! Students will set a goal of applying to internships and programs. Students will also be asked to document their process and will be graded on how much they apply themselves. Their success should result in an internship!!!

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<u>Best Way to contact the teacher:</u>

Email: jpoole@gusd.net

Discord: In class link

Google Classroom

Office Hours: Mondays 3:30pm-4:30pm

I encourage students to attend office hours for extra time understanding material. Students in the past who have attended said they wished they attended earlier. Come by and say hello!

<u>Home-Teacher Communication Plan:</u> GUSD schools and classes report home every five weeks via progress reports, these reports will notify parents and students if a student is in danger of failing.

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Student-Parent Contract

Crescenta Valley High School
Honors Software Development Internship
Mr. Jacob Poole

Student:
I have received a copy of the course syllabus. I agree to abide by all of the standards, requirements and classroom rules.

Student Name _____ Student Signature _____

Parent:
I have read and discussed this syllabus with my student. My student and I are aware of the expectations of this course. I give my student permissions to participate in all activities and discussions related to this course.

Parent Name _____ Parent Signature   _____

Instructor:
My promise to the student is to do my best to teach students material, give them relevant coursework to practice material, and correctly and fairly assess students' learning. I enjoy this course and I look forward to sharing my knowledge with you all.

Instructor Jacob Poole