

# Combs High School

## Software & App Design 2 Syllabus

**Instructor:** Taun E. Willis

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**Office Phone:** 480-882-3540 Ext. 7317

**Room #:** 317

**Office Hours:** 6:30-7:15 am daily

### **Course Description**

This course continues the in-depth introduction to coding in Python from CS201. During the course, students will master fundamental data structures such as lists, tuples, and dictionaries. Students will also gain proficiency with advanced topics including for-each loops, string operations, web APIs, and user-defined functions.

In addition, students will learn industry practices such as pair programming, code reviews, and role-based project development. Throughout the course, students will continuously demonstrate their knowledge through both traditional assessments and real-world coding projects, crafting the foundations of their professional portfolio.

### **1st Semester Labs:**

Numerous small coding labs will be completed in class.

### **2nd Semester Labs:**

Students will code a complex application utilizing AI concepts and methods.

### **Grading Scale**

90-100% = A

80-89% = B

70-79% = C

60-69% = D

59% or below = F

### **Semester Grade Calculation**

60% Assignments & Labs

10% Quizzes

30% Exams

### **Late Work**

Work is “due” when it is assigned. Sufficient time will generally be provided to complete all work in class, however, students have 7 days to submit their work. Work will not be accepted more than 7 days after the date it is assigned.

### **Exam Retakes**

Students will be allowed 1 retake on failed exams (i.e. for exams graded below 60%). Retakes are not permitted on Quizzes.

### **Classroom Expectations & Policies**

On the first day of class, students will sign a statement acknowledging the district, school, & classroom rules, including:

- NO CELL PHONES will be allowed in the classroom. All phones must be turned off and stored in backpacks (or in the phone caddy) in the back of the room. Students observed with a phone during class will have their phone confiscated for the remainder of class and parents/guardians will be notified. For any subsequent offense, the phone will be confiscated and turned in to the office for parent/guardian pickup.
- NO HEADPHONES or EARBUDS will be allowed in the classroom. The same cell phone confiscation policy applies to headphones and earbuds.
- NO GUM will be allowed in the classroom.
- NO FOOD will be allowed in the classroom.
- GAMES OF ANY KIND ARE PROHIBITED, including online games.
- ONLY APPROVED VIDEOS may be viewed during class.
- ONLY WEBSITES relevant to the curriculum may be accessed during class.
- ONLY TWO BATHROOM PASSES will be available upon request from the teacher. Students requiring a pass to another location must request a written hall pass. Students who fail to return promptly will be reported to campus security.
- NO LAPTOPS may be used in this room (Room 317). Students will use assigned workstations during class.

### **Curriculum Outline**

*This course is part of a career and technical education coherent sequence approved by the Arizona Department of Education and the East Valley Institute of Technology. Students will spend no less than 51% of class time engaged in hand-on learning.*

### **SEMESTER 1**

Computer Networks

Nested Collections

Web APIs

Code Review

User-Defined Functions

## **SEMESTER 2**

Scope and References

Docstrings

Cyber Security

Advanced Parameters

### **Labs**

*AI Labs:* Students will develop AI-themed application(s).

*Programmers Notebook / Code Review / Life Skills labs:* Students document their project code, conduct peer code reviews, prepare resumes, engage in mock interviews, practice communication and listening skills, and perform self-evaluations.

Percentage of total class time = Approx 60%