

Mr. Tracy

#### Rodney.tracy@washk12.org

# **Course Description:**

Welcome to Introduction to Programming in Python with Mr. Tracy. This class is a semester class and is worth .5 credits towards your High School graduation requirements. It counts as one of your computer credits. In the course we will be mainly using the Python programming language to learn about the basics of coding.

#### **Course Overview:**

The course will cover these Standards as found here: <a href="https://schools.utah.gov/cte/\_cte/strands/Python1Introduction.pdf">https://schools.utah.gov/cte/\_cte/strands/Python1Introduction.pdf</a>

- 1. The History of Programming and the different levels of programming.
- 2. Be able to create Algorithms to solve problems.
- 3. Be able to use an IDE to compile and run programs.
- 4. Understand the basic Variables and Data Types.
- 5. Students will use Descriptive names on Variables and Functions.
- 6. Students will understand the Arithmetic Operators (+,-,\*,/,\*\*)
- 7. Students will be able to debug their code and find errors and correct them.
- 8. Students will be able to obtain user input and create output in their code.
- 9. Students will be able to add relevant comments to code to make it easier to read.
- 10. Students will be able to use Loops and Functions in their code.
- 11. Demonstration of these will be done in a variety of means and methods.

The main goal is to create critical thinking skills to be able to solve problems in a logical manner using algorithms and then converting this into code on the computer. I will also be adding in some usage of AI as most programmers are now utilizing AI to help program, look for bugs, or find creative ways to solve problems. While we want students to learn on their own, this is the future, and I believe it is in the student's best interest to learn to properly use AI to leverage their skills and abilities so they will be ready for the careers that they will have access to. As such we will use ChatGPT in a guided manner under guidance and supervision by the teacher. If you do not agree with this, please contact me right away and your child will have to complete the course without the use of AI and the skills to properly use AI to their advantage.

### **Expectations:**

Attendance is always key to every class. Most of what we do is in Canvas and in CodeHS. We also will use other websites to assist such as Code.Org and Khan Academy. If you miss, you need to work on the assignments at home or come in before or after school to make up any missing assignments.

Playing games on the computers or doing social media is not allowed at any time during class. If you are done with work, I have a list of fun activities that you may do as a reward for getting your work done.

You can also work on homework in other classes as good grades don't just happen, you have to work to earn them.

School rules and policies still apply, cheating, bullying, electronics, language and so on are still in force in the classroom. Please follow those and listen to the teacher. Please do not talk while the teacher is doing their job teaching. Some concepts can be difficult to learn for some people so do you best to help each other and not cause problems.

When you come to class, come in prepared to learn. You will do this by starting out each class when the bell rings by being in your seat, logged in, and completing the Bell Work. The Bell Work will be Typing, unless otherwise stated by the teacher, on the board, or listed in Canvas. We will only type for about 5-10 minutes to get our hands and fingers ready for the class period. Then we will go into the lesson and assignments for the day.

## **Supplies:**

The only supplies you will need for the class is a Pencil with which to write. I will provide anything else we may use in the class.

If you disagree with anything here, please email me right away.