

Providence Career & Technical Academy
311/01 WORK BASED LEARNING-COMP SCI
Syllabus

Instructor Name: Patricia Hill
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Time Frame: 2021-2022

Course Description:

This half year course will introduce students to technology tools, processes, and procedures used in the workplace, explore careers in Computer Science, and while building and strengthening employability skills. During the second half of the course students will focus on the software development process while working with a team to build a culminating *Industry Project*. The lessons focus on the four primary steps of the software development process: Ideation and Validation (market analysis), Design, Implementation (coding), and Testing. Students will learn about the concepts during class and then work in small groups with an industry mentor to create their team project. At the end of the course, students will present their team project to a review panel of industry professionals.

Computer Technology Standards Addressed:

3-CT-M-1	Identify existing computational artifacts that can be used for the subtasks of a decomposed problem.
3-CT-M-2	Create computational artifacts by incorporating predefined procedures and external artifacts.
3-CT-CD-1	Systematically design and implement computational artifacts for targeted audiences by incorporating feedback from users.
3-T-CD-2	Systematically test and refine programs using a range of test cases.
3-CSN-T-1	Develop and communicate troubleshooting strategies others can use to identify and fix errors.
3-DA-ST-1	Explain tradeoffs between storing data locally or in central, cloud-based systems.
3-DA-ST-2	Translate data for various real-world phenomena, such as characters, numbers, and images, into bits.
3-DL-CU-1	Select appropriate software tools or resources to create a complex artifact or solve a problem.

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3-DL-SDI-1	Decompose a complex problem into multiple questions, identify which can be explored through digital sources, and synthesize query results using a variety of software tools.
3-DL-US-1	Describe different kinds of computations that software tools perform to tailor a system to individual users.
3-RC-SI-1	Use tools and methods for collaboration on a project to increase connectivity between people in different cultures and career fields.

Required Textbooks, Reading and Supplementary Materials:

- University of Rhode Island materials
- Online resources
- Teacher created resources

Work Completion/Due Dates

Due dates will be communicated via Google Classroom. Students should expect 24 hours' notice for assignments and 48 hours' notice for assessments.

Grading Policy:

- Classwork 50%
- Projects/Benchmarks 30%
- Quiz 10%
- Attitude 10%

EXPECTATIONS:

See Class Expectations and Procedures (Located in Google Classroom)

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RTI Plan

- The P-Tech department will meet once a month to identify and discuss students that are frequently absent and/or not successfully completing required course work.
- The student's P-Tech teacher will share concerns with the student, work with the student to create an improvement plan, and monitor progress. If after 2 weeks, no improvement is shown, a meeting will be scheduled with the RTI team to discuss creating an RTI plan.
- Upon completion of the RTI plan, the P-Tech department will contact the RTI team to discuss the effectiveness of the plan and to decide next steps: continue with RIT, exit RTI, or referral to special education.