**CSE 310 – Applied Programming**

**W01-Prove: Create Course Plan**

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| **Date:** | Jan 9, 2024 |
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1. After looking at the Module Description document in I-Learn, select five modules that you want to complete during this course. You cannot repeat a module. You will be responsible for learning the material and creating software to demonstrate what you learned. You can change your mind later in the course based on your experiences. You should not select a module that you have already used before. Mark only one “X” in each of the five columns.

**Ideas:**

* **Cloud Databases:** Cooking recipe website (utilizing a NoSQL database like MongoDB to store and retrieve recipes for a cooking website
* **SQL Relational Databases:** Payroll management system
* **Typescript:** Movie search app
* **C++:** Trading application (stock/investment trading app)
* **Embedded (Raspberry Pi):** Parent detector (motion detector that triggers something like a video) using raspberry pi camera module. Use C++ for this and build on that from the last one
* Other options: React.js, something to practice learning VIM.

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| **Modules** | **Module #1** | **Module #2** | **Module #3** | **Module #4** | **Module #5** |
| Cloud Databases | X |  |  |  |  |
| Data Analysis |  |  |  |  |  |
| Game Framework |  |  |  |  |  |
| GIS Mapping |  |  |  |  |  |
| Mobile App |  |  |  |  |  |
| Networking |  |  |  |  |  |
| SQL Relational Databases |  | X |  |  |  |
| Web Apps |  |  |  |  |  |
| Language – C++ |  |  |  | X |  |
| Language – Java |  |  |  |  |  |
| Language – Kotlin |  |  |  |  |  |
| Language – R |  |  |  |  |  |
| Language – Erlang |  |  |  |  |  |
| Language – JavaScript |  |  |  |  |  |
| Language – C# |  |  |  |  |  |
| Language - TypeScript |  |  | X |  |  |
| Language – Rust |  |  |  |  |  |
| Choose Your Own Adventure |  |  |  |  | X |

Please note that the “Choose Your Own Adventure” cannot be done during Module #1 or #2. Please refer to the Module Description document in I-Learn for more information.

1. Complete the following learning skill survey:

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| **Learning Skill** | **Ranking**  **1 = I don’t do this**  **2 = I do this sometimes**  **3 = I do this frequently** |
| **RESEARCH** |  |
| **I use multiple sources of information.** | 2 |
| **I document what I am learning.** | 1 |
| **I prepare well-thought-out questions.** | 2 |
| **I use the scientific method (research, hypothesis, experiment, and conclusion) to solve computing problems.** | 1 |
| **I share what I am learning with others (i.e. collaboration).** | 2 |
| **TIME MANAGEMENT** |  |
| **I manage my time between all my responsibilities.** | 2 |
| **I effectively estimate task duration for assignments and projects based on my previous performance.** | 2 |
| **I create a schedule for all assignments and projects.** | 1 |
| **RISK MANAGEMENT** |  |
| **I always start with identifying what I do not know.** | 1 |
| **I effectively identify what could fail based on my previous experiences.** | 2 |
| **I create mitigation plans for risks related to missing knowledge or potential failures.** | 2 |
| **CONTINUOUS IMPROVEMENT** |  |
| **I honestly identify the mistakes I have made in my work.** | 2 |
| **I develop improvement plans to support future assignments and projects.** | 2 |
| **I am driven by a vision of whom I can become by the creation of goals.** | 2 |

1. Based on your responses in the survey above, write a plan below to improve one behavior starting at the beginning of this course.

I think the skill I want to improve is my time management skills, specifically creating a schedule and estimating how long it will take to complete tasks. I know that getting better at this is definitely a trial and error thing in order to learn it, so I want to be sure to be gracious with myself and focus on improving and giving intentional effort to this skill more than how good I am it right away. I will practice this by creating an in depth to-do list/schedule for each project, and associate a time estimate with each part of that plan. Basically, keeping a log so I can reference for myself my estimating abilities as far as time goes.