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| <b>Course Title: Introduction to Programming and Web Environments</b> |
| <b>Level: Undergraduate</b>   |

*Note: As the course is in its initial development and launch, all below is subject to change at the instructor's discretion.*

#### COURSE DESCRIPTION:

This course introduces students to fundamentals and examples of programming and networked (e.g. web) environments. Programming and networks are ubiquitous to the modern experience, and students with any ambitions towards decision-making roles in enterprises both established and entrepreneurial can consider knowledge and skill in these areas as core competencies. Students are expected to have little to no programming or web development experience, though students with skills in these areas should still find the course beneficial. The course is project-based and learning will be experiential - students will learn and be assessed by doing. This is not to say that the typical academic concerns of knowledge, research and theory will be omitted, but that they will be applied.

#### COURSE PREREQUISITES:

None

#### REQUIRED MATERIALS & RESOURCES:

Hardware: wifi-enabled laptop computer (\*please speak with instructor if the student does not have access to one)

## COURSE OBJECTIVES:

At the successful completion of this course, each student will be able to:

| COURSE OBJECTIVES  | ASSESSMENT MEASURES  |
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| 1. Fluency in reading and skill in implementing basic programming elements   | Completion of a set of elementary programming tasks in a graphical programming environment.                              |
| 2. Fluency in reading and skill in programming basic designs in JavaScript and managing libraries and assets           | Creation and maintenance of an unique graphic design for a student business card.  |
| 3. Fluency and skill in setting up and styling a simple static website with HTML, CSS and JavaScript                   | Creation of a (free) personal website on github.   |
| 4. Fluency and skill in setting up a basic served application and production environment in Python, Docker and Heroku. | Creation of a live (free) web application that hosts the student's business card graphic designs and accepts user input. |

## ASSESSMENT CRITERIA:

As the course is designed towards competence, student work will be assessed on completeness and functionality, and aesthetics will only be considered as it affects the user experience. That said, creativity and inventiveness are generally positive factors, and such efforts will not go unnoticed.

Attendance: 10%

Submitted work: 90%