CPTR2001 - Scripting for Automation

Credits:	3 (2/1/0)
Description:	Students will build on the skills learned in Introduction to Programming and Scripting. Students will learn scripting styles, procedures and methods for system, database, web and network environments.
Prerequisites:	• CPTR1001
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Use tools and services to develop computing systems that consider platform constraints, support version control, track requirements and bugs, and automate building. 2. Implement secure coding techniques such as input validation, wrapper code, securing method access and buffer overflow prevention. 3. Produce a program that implements an appropriate style, intended input behavior and correct program components, and includes descriptions of program functionality. 4. Develop algorithms to solve a computational problem. 5. Implement appropriate data structures while using multiple levels of abstraction to create a new program that requires teamwork and is socially relevant. 6. Implement a mobile or web app with appropriate user experience design, functionality and security analysis while using standard libraries, unit testing tools and version control in a team environment. 7. Develop an interactive application that optimizes usability while applying a user-centered design cycle with related tools and techniques. 8. Analyze how a responsive web application utilizes a web framework and presentation technologies in support of a diverse online community. 9. Implement storage, transfer and retrieval of digital media with appropriate file, database or streaming formats.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*

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