

## 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:	<ul style="list-style-type: none"> <li>• CPTR1001</li> </ul>
Corequisites:	
Pre/Corequisites*:	
Competencies:	<ol style="list-style-type: none"> <li>1. Use tools and services to develop computing systems that consider platform constraints, support version control, track requirements and bugs, and automate building.</li> <li>2. Implement secure coding techniques such as input validation, wrapper code, securing method access and buffer overflow prevention.</li> <li>3. Produce a program that implements an appropriate style, intended input behavior and correct program components, and includes descriptions of program functionality.</li> <li>4. Develop algorithms to solve a computational problem.</li> <li>5. Implement appropriate data structures while using multiple levels of abstraction to create a new program that requires teamwork and is socially relevant.</li> <li>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.</li> <li>7. Develop an interactive application that optimizes usability while applying a user-centered design cycle with related tools and techniques.</li> <li>8. Analyze how a responsive web application utilizes a web framework and presentation technologies in support of a diverse online community.</li> <li>9. Implement storage, transfer and retrieval of digital media with appropriate file, database or streaming formats.</li> </ol>
MnTC goal areas:	None

\*Can be taking as a Prerequisite or Corequisite.