**CSCI 3010 – Scripting for Data Management**

Credits: 3 Section: \_\_\_\_ Term: \_\_\_\_\_\_\_

**Location & Meeting Time**

Classroom location:

Class Meeting Schedule:

**Contact Information**

**Instructor:**   
**Email:**   
**Phone: (**423) 439-  
**Office:**

**Instructor Availability**

Office Hours:

**Course Description & Materials**

*Prerequisites*: (C- or better in CSCI 1120 or C- or better in CSCI 1260) and C- or better in CSCI 2020  
Explores programming concepts from data management, data manipulation, and statistical computing perspective. This course offers experience with a modern data-focused programming language.

**Required Materials**

[enter textbook, software, tool etc]

**Course Overview**

**Course Purpose and Objectives**

The purpose of this course is to present necessary skills in data quality management and standardization, and the use of scripting languages to empower students with foundational skills in this domain and equip them for more advanced academic or professional exploration.

The objectives of the course are to:

* equip students to help curate data, by assessing and assuring its completeness and correctness
* facilitate the analysis of potentially large datasets, including datasets with related data in dissimilar formats

**Expected Learning Outcomes**

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| Upon completion of the course, students will:   1. Develop scripts in a mainstream data-focused scripting language 2. Explain common errors and key issues that arise in the use of scripts to manipulate common datasets 3. Design, implement, and test scripts. 4. Integrate database and scripting concepts to solve problems.   **Major Course Topics**   |  | | --- | | * Understanding Data Management * Tools for Data Management * Programming language understanding * Introduction to Scripting Languages for Data Management * Databases in Data Management * Data quality assurance and Data Sourcing * Extracting, Transforming, and Loading Data (ETL) | |

**Course Policies**

**Attendance**

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| Regular on-time class attendance and participation in class and labs is expected. Students arriving late create a distraction for other students and waste their time. Respect for others requires one to be in place and ready to begin at the scheduled time. For lab classes, this means one should be logged in and ready to begin at the designated class starting time.  For class sessions where quizzes are given, quizzes will typically begin at the designated class starting time and will be available for students for the first 5 minutes of class. Students arriving late will be unable to take the quiz and will receive a score of 0 on the missed item.  When students miss class, it is their responsibility to find out what material they missed and be prepared for upcoming class elements. Students missing days when homework or lab assignments are given should consult other students or refer to Desire2Learn for assignment requirements. Due dates are not adjusted for absentees.   |  |  | | --- | --- | | Absences | Grade Deduction | | 0 – 3 | None | | 4 – 6 | Final Grade lowered by one letter grade (i.e. A to B, B- to C-) | | 7 or more | Final letter grade of F for the course | |

**Assignment and Grading**

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**Other**

**Syllabus Attachment Information**: The University’s approved Syllabus Attachment Information page provides information about important University and Academic Policies that all students should know. <https://www.etsu.edu/curriculum-innovation/syllabusattachment.php>