Graduate Course Syllabus

DAT 500: Data and Information Management

Center: Online

Course Prerequisites

None

Course Description

Master key foundational concepts and tools in data and information management. Learn data analysis skills required for data assessment and data validation for creating data structures and data analysis reports. Gain exposure to common data and information management technologies that provide decision support capabilities to organizations.

Course Outcomes

- Employ an appropriate command line interface in preparing data files for analysis
- Develop basic code for reading, manipulating and saving data in an integrated development environment
- Apply a source code management strategy for developing and maintaining code that can be shared effectively within an analytic development community
- Evaluate the results of data analyses for drawing informed conclusions
- Determine the purpose of a database management system in data analytics

Required Materials

Codio

https://codio.com

For further information on using this resource, review the Getting Started in Codio document.

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	6	30	180
Activity: Accessing Codio	1	10	10
Journals	3	40	120
Course Requirements Quiz	1	10	10
Codio Units	7	20	140
Final Project			
Milestone One	1	50	50
Milestone Two	1	70	70
Milestone Three	1	70	70
Final Submission	1	350	350
			Total Course Points: 1,000

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

University Grading System: Graduate

Grade	Numerical Equivalent	Points
A	93–100	4.00
A-	90–92	3.67
B+	87–89	3.33
B	83–86	3.00
B-	80–82	2.67
C+	77–79	2.33
C	73–76	2.00
F	0–72	0.00
I	Incomplete	
IF	Incomplete/Failure *	
W	Withdrawn	

* Please refer to the policy page for information on the incomplete grade process.

Grading Guides
Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

Weekly Assignment Schedule
All reading and assignment information can be found within each module of the course. Assignments and discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and

discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	What is Data Analytics
	1-1 Accessing Codio
	1-2 Discussion: Getting Started – Introductions and Data First Impressions
	1-3 Course Requirements Quiz
2	The Command Line Interface
	2-1 Codio Units: Linux
	2-2 Journal: Data Assessment
	2-3 Discussion: Source Code Management
3	RStudio, an Integrated Development environment
	3-1 Codio Units: RStudio
	3-2 Milestone One: Data Analysis Plan
4	Basics of Coding in RStudio
	4-1 Codio Units: RStudio
	4-2 Discussion: Data Validation and Discovery
	4-3 Journal: Data Validation and Discovery Walkthrough
	4-4 Staying on Track (Ungraded)
5	Vectors, Matrices, and Factors in RStudio
	5-1 Codio Units: RStudio
	5-2 Milestone Two: Data Validation and Discovery
6	Data Frames and Lists in RStudio
	6-1 Codio Units: RStudio
	6-2 Discussion: Findings, Informed Conclusions, and Looking Ahead
	6-3 Journal: Data Analysis Report
	6-4 Staying on Track (Ungraded)
7	Intermediate Topics in RStudio
	7-1 Codio: RStudio
	7-2 Milestone Three: Data Structures and Brief Report
8	Relational Database Management Systems
	8-1 Codio: MySQL unit
	8-2 Discussion: Database Project
	8-3 Staying On Track (ungraded)
9	Finalizing Code for R Program
	9-1 Final Project Due
10	Reflection & Looking Ahead
	10-1 Discussion: Next Steps and Professional Reflection

Attendance Policy

Online students are required to submit a graded assignment/discussion during the first week of class. If a student does not submit a graded assignment/discussion during the first week of class, the student is automatically dropped from the course for non-participation. Review the full attendance policy.

Late Assignments Policy

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the full late assignment policy.

SNHU Student Handbook

Review the student handbook.

ADA/504 Compliance Statement

In accordance with Section 504 of the Rehabilitation Act of 1973, Title III of the Americans with Disabilities Act (ADA) of 1990, and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008, Southern New Hampshire University does not discriminate on the basis of disability, including intellectual disability, in admission, treatment, or access to its programs or activities, nor does it discriminate in employment in its programs or activities.

The university prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities. A disability is a condition or impairment that impacts a "major life activity" or "major bodily function."

- **Major life activities** include, but are not limited to, caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working.

- **Major bodily functions** include, but are not limited to, functions of the immune system, normal cell growth, and digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions. Disabilities include physical, medical (including pregnancy), mental health, and learning needs.

At the beginning of each term, or as soon as you become aware of a disability or accessibility concern, we encourage you to contact the Online Accessibility Center (OAC) to discuss accommodations for which you may be qualified. Reasonable accommodations are established through an interactive process between the student and the OAC.

Note that accommodations are not retroactive and that disability accommodations are not provided until acceptable documentation of a disability and its impact is received and an accommodation letter has been processed. If you are unsure whether your condition qualifies as a disability or accessibility concern, please contact the OAC for determination.

Contact Information:

Online Accessibility Center

Phone: 866-305-9430

Email: oac@snhu.edu

For questions concerning support services, documentation guidelines, or general disability issues, please visit the Online Accessibility Center website.

If you feel you have been denied appropriate disability-related accommodations, including appropriate auxiliary aids and services, you may file a grievance as described in the ADA/504 Grievance Policy found on the Disability and Accessibility Services website.

Academic Honesty Policy

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the full academic honesty policy.

Copyright Policy

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the full copyright policy.

SNHU Withdrawal Policy

Review the full withdrawal policy.

Southern New Hampshire University Policies

More information about SNHU policies can be found on the policy page.

Student Work Samples

For the purpose of continuous improvement of our educational training, Southern New Hampshire University may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you would like to withdraw permission for use of your work, please complete the Student Work Sample Survey.