Course Syllabus

Course Information

Credits: 3 credits
Term: Spring 2024
Time and Room: Thursday 1:10 pm – 4:00 pm P146

Instructor Information

Name: Tim Finan
Department: Applied Engineering and Sciences Department, UNH Manchester
Office: P143
Email: Timothy.Finan@unh.edu
Office Hours:

- As posted outside my office
- Outside posted hours; as needed by appointment

Course Description

This is a project course that provides practical experience with database systems and technologies. Topics include data modeling, database design, system development and integration, database administration, and configuration and project management.

Course Objectives

Upon completion of this course, students should be able to:

- Understand what data models are and use them to design logical structures for databases
- Use Data Definition Language (DDL) to create, modify, and delete database objects
- Use Data Manipulation Language (DML) to perform operations on database objects
- Plan, execute, and present database projects
- Successfully pass system design questions involving database design

Text and Resources

Database Design – 2nd Edition, Adrienne Watt and Nelson Eng

- https://open.umn.edu/opentextbooks/textbooks/354

SQLite – Database Management System

- https://www.sqlite.org/index.html
- https://sqlitestudio.pl/

Grading

Final grades will be based on Quizzes, Homework, Project and Final Exam.

- Participation/Attendance – 20%
- Homework/Assessments – 40%

- Project – 20%
- Quizzes and Final Exam – 20%

Quizzes will be announced but you should always keep up with the material from week to week.

COURSE POLICIES REGARDING STUDENT BEHAVIOR

Attendance
Students are responsible for attending scheduled meetings and expected to abide by the University Policy on Attendance (as stated in the *UNH Student Rights, Rules, and Responsibilities*).

If you must miss a class, please let me know ***ahead of time***. Do not wait until 15 minutes before the class to inform me that you are going to be absent. If you are sick, please let me know ***at least one hour prior to class***.

Late submissions
Policy for late submissions is very strict and applies only in exceptional cases of student illness, accident, or emergencies that are properly documented. A late submission of a homework or project artifact may be granted only if the student:

- Emails prior to the deadline and
- Explains and provides evidence for the circumstances that have prevented the student from meeting class requirement.

Failing to comply with these rules may result in no credit for the course.

STATEMENT ON ACADEMIC INTEGRITY

Academic integrity is a core value at the University of New Hampshire. The members of its academic community both require and expect one another to conduct themselves with integrity. This means that each member will adhere to the principles and rules of the University and pursue academic work in a straightforward and truthful manner, free from deception or fraud. The policy can be found in the annual publication of the Student Rights, Rules, and Responsibilities.

Please see below the Academic Honesty policy for the Computing Program. Failing to comply with these rules is considered a violation of the academic honesty policy.

- Graded work in this class should be entirely yours and shall not include work done by others or obtained from external sources.
- Collaboration on work is allowed only upon explicit instruction from the course instructor and only within the constraints given for that specific work. If unclear,

you must consult with me on what is allowable. It is your responsibility to get such clarification.

- Collaboration on all the work in this class is encouraged, unless explicitly stated that the assigned work must be individual work with no collaboration permitted.
- Sharing the products of your work or your direct participation in doing work for others is also an instance of academic misconduct. Refrain from doing work on behalf of somebody else or from sharing your work products with other students.
- If the preparation of your artifacts benefits from collaborations with peers, tutors, tech assistants, course instructor (that's me), or any other person (friend, relative, etc.), in cases in which collaboration is allowed, submitted artifacts must include clear attribution to the kind of beneficial collaboration.
- If the preparation of your artifacts benefits from online sources (forums, public GitHub repos, tutorials, MOOCs, etc.), in cases in which collaboration is allowed, submitted artifacts must include clear attribution to the source and source content you have used

There are very serious repercussions if you deviate from the academic honesty policy:

1. The penalty for the first occurrence of an instance of academic dishonesty and plagiarism in this course is no credit for the graded work in question. Program Coordinator and Department Chair will be notified of your misconduct, and a letter from the Program Coordinator will be sent to you, course instructor, and faculty advisor.
2. The second instance of academic dishonesty, OR two instances of academic dishonesty in this course is penalized with failing the course. Program Coordinator, Department Chair, and Associate Dean of UNH Manchester or Graduate School (depending on your enrollment) will be notified. A letter from the Program Coordinator will be sent to you, course instructor, and faculty advisor. The Dean may decide on dismissal from the University.
3. If the first instance of academic dishonesty in this course is your second one, the course action described at #2 above will be followed.

Bottom line, do not plagiarize, do not share your work with others, and do not collaborate without giving proper attribution.

ARTIFICIAL INTELLIGENCE

Unless otherwise specified, the use of Automated Writing Tools, including chatGPT and similar artificial intelligence (AI) tools, is strictly prohibited in this course, even when properly attributed. The use of automated writing tools is considered plagiarism (as defined by UNH's Academic Integrity Policy) and will be handled in accordance with existing policy.

STUDENTS WITH DISABILITIES

UNH Manchester is committed to providing students with disabilities with a learning

experience which assures them of equal access to all programs and facilities of the University, which makes all reasonable academic aids and adjustments for their disabilities and provides them with maximum independence and the full range of participation in all areas of life at UNH Manchester. Students who need to document their disability and determine any accommodations, services, or referrals should schedule an appointment with the UNH Manchester Disability Services Coordinator by calling 641- 4170. For more information, please see http://manchester.unh.edu/student/disability.

Confidentiality and Mandatory Reporting of Sexual Violence or Harassment

The University of New Hampshire at Manchester and its community are committed to assuring a safe and productive educational environment for all students. Title IX makes it clear that violence, harassment, and discrimination based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, and ability.

If you or someone you know has experienced sexual or relationship violence, and/or stalking and harassment, you can find the appropriate resources below:

Reporting On Campus:

- Title IX Deputy Intake Coordinator: Lisa Enright 603-641-4336
- UNH Manchester Security: 603-641-4124 or located om the 2md floor foyer

Reporting Off Campus:

- Manchester Police Department - 603-668-8711, 405 Valley St. Manchester, NH
- or your local police

department ***For emergencies dial***

911. Confidential Support Resources:

- YWCA, NH – 603-668-2299 (24hour), 72 Concord St. Manchester, NH
- Sexual Harassment and Rape Prevention Program (SHARPP): 603-862- 7233 (24hour)
- The Mental Health Center of Greater Manchester
- 24 Hour NH Sexual Violence Hotline: 1-800-277-5570
- 24 Hour NH Domestic Violence Hotline: 1-866-644-3574

Tentative Schedule

Week	Date	Topic	Notes
Week 1	Jan 25	Introductions	
Week 2	Feb 1	Data Modeling	
Week 3	Feb 8	Classification of Database Management Systems	Quiz 1
Week 4	Feb 15	Relational Data Model	
Week 5	Feb 22	Entity Relationship Data Model	
Week 6	Feb 29	Integrity Rules and Constraints	Quiz 2
Week 7	Mar 7	ER Modeling	Project Check-in
Week 8	Mar 14	Functional Dependencies	
Spring Break Mar 18 – Mar 22			
Week 9	Mar 28	Normalization	Quiz 3
Week 10	Apr 4	Database Development Process	
Week 11	Apr 11	Database Users	
Week 12	Apr 18	Structured Query Language (SQL)	Quiz 4
Week 13	Apr 25	Data Manipulation Language (DML)	Project Due
Week 14	May 2		Project Due
			Final Exam