

IT 478: Advanced Database Management Fall 2021 Syllabus

Department: School of Information Technology

Instructor: Dr. James Wolf

Office Hours: Mondays and Wednesdays 1:00 – 2:00 via email and Zoom

Email: jrwolf@ilstu.edu

Class Meeting Times: Mondays and Wednesdays 5:00 PM - 6:15 PM

Classroom: Julian Hall 028 (JH 028)

REQUIRED Text: *Murach's Oracle SQL and PL/SQL for Developers (2nd Edition)*
by Joel Murach
18 chapters, 630 pages, 263 illustrations
Published October 2014
ISBN: 978-1-890774-80-6
<https://www.murach.com/books/orac/index.htm>

NOTICE: This syllabus **DOES NOT** represent a valid, written contract between the students and instructor of this course. It is intended to represent the general guidelines under which this course will be conducted. However, the instructor reserves the right to review and alter significant portions of these guidelines as warranted by events during the course of the semester. Such alterations may be communicated to the students either in written or oral fashion.

Course email instructions: When contacting me via email, put the course number and the topic in the subject line. For example, if you have questions about the course syllabus, please put **IT478 Syllabus Question** in the subject line. When submitting assignments electronically, please put **IT478 Assignment** (plus the number) in the subject line. In addition, include your first and last name in the text of all emails.

Course Overview

This course will cover Theory, design, and implementation of application systems using database technology. Data modeling, database administration, database implementation, performance issues, current trends.

Prerequisites: IT 378

Course Objectives

The focus of the course will be on improving overall knowledge of the functions of databases with an eye toward performance optimization.

Student Access and Accommodation Services

Any student needing to arrange a reasonable accommodation for a documented disability should contact Student Access and Accommodation Services at 350 Fell Hall, (309) 438-5853, or visit the website at StudentAccess.IllinoisState.edu

Diversity and Inclusion:

Diversity and inclusion are core values at Illinois State. We aim to foster an inclusive environment characterized by cultural understanding, respect, and social justice. More information about ISU core values is available at: <https://strategicplan.illinoisstate.edu/values/>

Course Approach

The course will be taught through a series of slides and lecture notes. There will be **2 exams**—There will be 10 homework assignments, 10 Labs, and 12 quizzes (lowest 2 will be dropped).

In a normal week, we will:

- 1) On most Monday's I will cover a chapter (or a portion of a chapter in the textbook). I will post lecture slides covering this material each week (sometimes more than once a week).
- 2) On most Wednesday s, we will do an "in-class" lab assignment together. **Most Wednesday meetings will be over Zoom.** These activities are lightly graded and heavily assisted. The point is to give you exposure. Some grading ensures that you will actually complete the activity. But I will give you a ton of help and hints on these.
- 3) Do a homework assignment related to the chapter.
- 4) Complete a quiz related to the chapter

We will also have

- 1) Two group assignments (I will post instructions from group assignment #1 in week 3).
- 2) 2 exams covering the textbook material
- 3) and a final individual project.

There will be no final exam for this course. I will wrap up lectures the week prior to Fall break.

Assignments (40% of Final Grade)

There will be 10 HW assignments will enable you to begin developing hands-on skills. Assignments are due at the beginning of class on the due date.

Quizzes (10% of Final Grade)

There will be 12 quizzes posted on ReggieNet throughout the semester. Quizzes will cover the text and will be worth 10 points each. Quizzes will be announced in class. Missed quizzes cannot be made up, **but the lowest 2 scores will be dropped**. I suggest you not wait until the last minute to take quizzes because if you cannot get through in ReggieNet, you will not be allowed extra time to take the quiz!

Exams (20% of Final Grade)

The purpose of these exams is to assess your (a) command of the concepts and principles discussed during the course and (b) your ability to integrate and generalize these concepts and principles and apply them to new situations. The exams will cover material covered in the lectures, in the text and contained in the speaker notes. The exam must be taken at its scheduled time; make up exams will only be given for truly special and compelling cases, in accordance with University guidelines.

Final Project (10% of total grade)

There will be no final exam for this course, but there will be a final individual project. This project will be demanding and will test your overall knowledge gained throughout the course.

Feedback and Continuous Improvement

Students are strongly encouraged to visit with me in my office and/or use e-mail to ask questions, to share suggestions about any aspect of the course, or to clear up possible points of confusion. I will use your feedback to continuously improve and fine-tune the coverage levels and the teaching/learning processes. Please note that I may not always be able to make all of the changes suggested, but I will do my best to accommodate your suggestions.

Grades will be assigned as follows. (Final grades will be determined based on overall class performance.)

Assignment	Possible Points
HW (10 * 40 points)	400
Chapter Exams (2 * 100 points)	200
Labs (10 * 10 points)	100
Quizzes (10 * 10 points)	100
Final Project	200
Total	1000

Grading Scale Information						
(All grades will be based on the percentage of total points possible in the class)						
<i>A Minimum of</i>	<i>Up to</i>	<i>Letter Grade</i>		<i>A Minimum of</i>	<i>Up to</i>	<i>Letter Grade</i>
90 %	Unlimited	A		60 %	69.99 %	D
80 %	89.99 %	B		0 %	59.99 %	F
70 %	79.99 %	C				

To receive a grade of **A** for the course, a student must attain an overall average of **85** or above on the exams.

Computer Use: The IT labs contain software you will need for both your group project and various other assignments. Be sure to read all posted IT regulations for lab use and individual's responsibilities.

Absences due to Student Bereavement

Students who experience the death of an immediate family member or relative as defined in the University Student Bereavement Policy will be excused from class for funeral leave, subsequent bereavement, and/or travel considerations. Students are responsible for providing appropriate documentation to the Dean of Students office and for contacting the instructor as soon as possible to make arrangements for completing missed work. More information is available in the Student Bereavement Policy at <http://policy.illinoisstate.edu/students/2-1-27.shtml>.

Statement Regarding Student Academic Conduct

The following is from the student handbook. Be sure you understand this policy. Ask if you have questions. The full text of the student Code of Conduct can be found at: <https://deanofstudents.illinoisstate.edu/conflict/conduct/code/>

Protecting the rights of others based upon the nature of the educational process.

- 1) Students are expected to be honest in all academic work. A student's name on any academic exercise (theme, report, notebook, paper, examination) shall be regarded as assurance that the work is **the result of the student's own thought and study**. Offenses involving academic dishonesty include, but are not limited to, the following:
 - a. Cheating on quizzes or examinations occurs when any student is found using or attempting to use any book, paper, or other article, or assistance from any individual intending to deceive the person in charge of the quiz or examination with reference to his or her work. No books, notes, papers or related articles shall be used at any quiz or examination unless specifically authorized by the person in charge.
 - b. Conversation or other communication between individuals in examinations and quizzes is forbidden except as authorized by the instructor.
 - c. Computer dishonesty is the unacknowledged or unauthorized appropriation of another's program, or the results of that program, in whole or in part, for a computer related exercise or assignment.
- 2) Plagiarism is the unacknowledged appropriation of another's work, words, or ideas in any themes, outlines, papers, reports, or computer programs. Students must ascertain from the instructor in each course the appropriate means of documentation. Submitting the same paper for more than one course is considered a breach of academic integrity unless prior approval is given by the instructors.
- 3) Grade falsification is any attempt to falsify an assigned grade in an examination, quiz, report, program, grade book, or any other record or document.
- 4) Collusion occurs when students willfully give or receive unauthorized or unacknowledged assistance on any assignment. This may include the reproduction and/or dissemination of test materials. Both parties to the collusion are considered responsible. No individual may substitute for another

in any quiz or examination.

- 5) Students shall not knowingly tear, mark, render imperfect, or otherwise damage or destroy or wrongfully appropriate library materials.
- 6) Students shall not alter any official University record.

Any case of plagiarism OR ANY OTHER VIOLATION OF THE STUDENT ACADEMIC CONDUCT will result in a F for the course and possible further action including but not restricted to: notification of the graduate advisor and Director of IT and/or taking action according to the ISU Academic Integrity Policy (available online):
<https://deanofstudents.illinoisstate.edu/conflict/conduct/code/academic.php>

Classroom Behavior

1. Since every student is entitled to full participation in class without interruption, all students are expected to come to class prepared and on time and remain for the full class period.
2. Disruptive behaviors, including excessive talking, arriving late to class, sleeping, reading newspapers, using unauthorized electronic devices during class is not permitted. Repetitive and seriously disruptive behavior (e.g., fighting, using profanity, personal or physical threats or insults, damaging property) may result in your removal from class in accordance with policies and procedures outlined in the ISU's Code of Student Conduct and in consultation with Community Rights and Responsibilities in the Dean of Student's Office.

Tentative Course Schedule

Week (Start Date)	Topic
01 (08/16/20)	Syllabus/Intro
02 (08/23/20)	Chapter 3
03 (08/30/18)	Chapter 4 Part 1
04 (09/06/18)	Chapter 4 Part 2
05 (09/13/18)	Chapter 4 Part 3
06 (09/20/18)	Chapter 4 Part 4
07 (09/27/18)	Chapter 4 Part 5 and Exam #1
08 (10/04/18)	Chapter 6 Part 1
09 (10/11/18)	Chapter 6 Part 2
10 (10/18/18)	Chapter 7 Part 1
11 (10/25/18)	Chapter 7 Part 2
12 (11/01/18)	Chapter 10 Part 1
13 (11/08/18)	Chapter 12
14 (11/15/18)	TBA and Exam #2
15 (11/22/18)	Fall Break
16 (11/29/18)	Success Week
Finals Week	Final Project Due