

**Oklahoma State University Institute of Technology
Online Common Syllabus
Summer 2018**

ITD 2203 DATABASE SYSTEMS

An introduction to database systems with emphasis on data modeling, design, construction, and use of efficient relational databases. Topics include database architecture, entity-relationship (ER) models, normalization, indexing, security, plus SQL query development and validation.

Course Purpose:

The purpose of this course is to give the learner an understanding of the means to build, populate, and extract information from a TSQL relational database.

Type of course: Theory/Lab.

Credit Hours: 3; Total hours of theory per semester: 30;

Total hours of lab for the semester: 45; Total hours of clinical per semester: 0.

Class length - Full Semester

Class Days and Times: Fully Online

Prerequisites: ITD1033- Introduction to Computer Logic

Instructor Name: Dr. Fil Guinn

Instructor Phone: (918) 293-5428

Office: EET/IT, Room 15C

Instructor email: fil.guinn@okstate.edu

Contact: My preferred method of contact is **email**. Please allow 24-48 hours to return your correspondence during the normal work week.

Instructor's Office Hours: Tuesday and Thursday 10:00 AM – 3:00 PM & 6:30 – 8:30 PM (Online, Phone and Email) Central Time

School Name: School of Information Technologies **Main Phone:** 918-293-5440

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: Murach's SQL Server 2016 for Developers, Bryan Syverson, Joel Murach, ISBN 978-1-890774-96-7

References: None Required

Materials: Materials needed include a data storage device. Access to a computer with broadband Internet Access (2Mbps upload preferred)

Uniform/Tools: None

Estimated Cost for Materials: \$ 62.50

Estimated Cost for Uniform/Tools: \$ 0

Optional Resources: None

Upon completion of the course, students should:

Course Objectives	Assessment of Objectives
A.2: Demonstrate proficiency in the use of a programming language to solve complex problems in a secure and/or robust manner	Comprehensive Final*
B.1: Create logical designs for IT systems that support specific processes	Unit Exam 2
B.2: Employ query design statements to store or retrieve the necessary data utilizing appropriate relational, data, or formatting conventions within a stated scenario	Chapter Assignments
I.3: Apply appropriate tools needed to build and maintain interactive data systems	Chapter 11 & 12 Assignments
J.2: Write simple and compound conditions within a programming language or similar environment (e.g., scripts, macros, SQL)	Chapter 4 & 6 Assignments

Aspects of the course objective assessments may be used in the university's assessment of student learning. If applicable, an asterisk (*) above indicates this assignment is used in the university assessment program.

COURSE ACTIVITIES

In this course students will:

- Analyze user requirements and develop conceptual and physical designs for business cases
- Translate a relational database design into fully functional database
- Use structured query language (SQL) to retrieve data
- Use appropriate tools and skills to complete projects successfully
- Document and submit solutions to cases for SQL activities

EVALUATION - GRADES WILL BE BASED ON THE QUALITY AND COMPLETION OF THESE TASKS:

Collaboration Opportunities (4 sets)	5%
Faculty Contact	5%
Chapter Assignments – (12 sets)	30%
Unit Exams – (4 exams covering unit blocks).....	40%
Comprehensive Final*	15%
Electronic Portfolio	5%
Total	100%

OSUIT Grading Scale
A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% & below

*The student's grade for the Comprehensive Final Exam will be used in the university's assessment of student learning. A 70% competency or higher receives a Pass rating. This Pass/Fail rating is independent of the student's course grade.

Daily and/or weekly quizzes, small weekly assignments and similar type projects: Normal return time to student by next class meeting or no later than one (1) week.

Extensive assignments, large lab projects, extensive quizzes, exams and similar type projects: Normal return time to students in one (1) to two (2) weeks.

RECOMMENDED STUDENT COMPETENCIES/SKILLS

- Interact with relational databases using the Microsoft SQL Server Management Studio
- Interact in class and provide discussion on database topics supported by class content
- Create logical diagrams that show relational database structure
- Provide supported answers to textbook questions

AUTHORIZED TOOLS

Students may use any/all course materials, including books and notes, while participating in classroom activities. All quizzes are to be completed independently; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty. Microsoft SQL Server Management Studio will be provided to the student through virtual instances.

LATE WORK

Turning in your properly-executed work early is always acceptable. All exams, assignments, papers and projects must be completed and submitted by the specified due date; late work will not be accepted after the due date unless prior authorization is given.

If the faculty member grades an assignment you have submitted before the due date, you do not have the ability to modify the assignment to increase your grade. Any additional submissions will not be opened, so make sure you are ready to submit your assignments and accept the grade you are given.

TESTING

Instructor Policy: Students are expected to take exams and give presentations during the scheduled examination periods.

OTHER LAB AND CLASSROOM POLICIES

None.

ONLINE COURSE INTERACTION

OSUIT requires all online courses to include interaction between students, peers and instructors. Our online courses use a variety of tools to build a community of learners and strengthen engagement between students and their peers, as well as between students and the instructor. Communication tools used in courses may include Discussion, News, and Email. Read the syllabus completely to determine which of these methods you, your classmates and your instructor will use for interaction. General guidelines for student conduct while interacting within an online course include: (1) Use proper language in all communications; (2) Harassment of any type will not be tolerated; (3) No jokes, insults or threats of an offensive nature.

For more information, go to: <http://osuit.edu/center/netiquette>

SYLLABUS ATTACHMENT

View the Syllabus Attachment, which contains other important information, by visiting http://osuit.edu/center/student_syllabus_information

Course Schedule			
Schedule	Topic	Assignment	Due Date
Week 1	Module 1 Relational databases and SQL	Chapter 01 Study Guide	5/6/2018
Week 2	Module 2 How to use the Management Studio	Chapter 02 Study Guide Chapter 02 Homework <i>Collaboration Opportunity #1 Begins</i>	5/13/2018
Week 3	Module 3 How to design a database	Unit 01 Exam Chapter 9 Study Guide Faculty Contact	5/20/2018
Week 4	Module 4 How to create and maintain databases and tables with SQL statements	Chapter 10 Study Guide Chapter 10 Homework <i>Collaboration Opportunity #1 Ends</i>	5/27/2018
Week 5	Module 5 How to use the Management Studio for database design	Chapter 11 Study Guide Chapter 11 Homework <i>Collaboration Opportunity #2 Begins</i>	6/3/2018
Week 6	Module 6 How to Use the Management Studio for Database Design	Chapter 12 Study Guide Chapter 12 Homework	6/10/2018
Week 7	Module 7 How to retrieve data from a single table	Unit 02 Exam Chapter 03 Homework Chapter 03 Study Guide <i>Collaboration Opportunity #2 Ends</i>	6/17/2018

Week 8	Module 8 How to retrieve data from two or more tables	Chapter 04 Study Guide Chapter 04 Homework <i>Collaboration Opportunity</i> <i>#3 Begins</i>	6/24/2018
Week 9	Module 9 How to code summary queries	Chapter 05 Study Guide Chapter 05 Homework	7/15/2018
Week 10	Module 10 How to code subqueries	Unit 03 Exam Chapter 06 <i>Collaboration Opportunity</i> <i>#3 Ends</i>	7/22/2018
Week 11	Module 11 How to code subqueries	Chapter 06 Study Guide Chapter 06 Homework <i>Collaboration Opportunity</i> <i>#4 Begins</i>	7/29/2018
Week 12	Module 12 How to insert, update, and delete data	Chapter 07 Study Guide Chapter 07 Homework	8/5/2018
Week 13	Module 13 How to work with data types	Chapter 08 Study Guide Chapter 08 Homework <i>Collaboration Opportunity</i> <i>#4 Ends</i>	8/12/2018
Week 14	Module 14 Exam Review	Unit 04 Exam	8/19/2018
Week 15	Module 15 Semester Wrap-Up	Comprehensive Exam Pt1 Comprehensive Exam Pt2 Electronic Portfolio	8/22/2018 8/22/2018 8/23/2018

Schedule is subject to change at instructor discretion.