

CIS315 Database Design and Applications I (3 credit hours) Syllabus

Course Description

This course addresses technologies for developing database applications. It covers the principles of database design, and database models using Access. Organizational data modeling and designing normalized database structures is strongly emphasized. Managerial issues associated with database administration are covered along with an introduction to distributed database concepts in a client-server environment.

Course Learning Outcomes (CLOs)

By the end of this course, the student will be able to do the following:

1. Identify the terminology and technologies for developing relational database applications.
2. Apply organizational data modeling and design normalized database structures.
3. Implement the principles of relational database design and database models using Access.
4. Create and build an Access database.
5. Apply managerial concepts associated with database administration.
6. Illustrate distributed database concepts in a client-server environment.
7. Maintain and query databases.
8. Create and use custom forms and reports tools.
9. Define table structures.

Course Topics

Databases are everywhere
Filters
Sorts
Access versus Excel
Report basics
Relational databases
Queries
Updating a database
Creating and running a query
Filtering data
Changing a datasheet's appearance
Creating a calculated field
Using aggregate functions
Creating forms
Modifying a form

Sorting records in a form
Identifying form sections
Revising forms
Using form views
Identifying control types in forms
Creating reports using report tools
Modifying a report
Sorting records in a report
Identifying report sections
Revising reports using report views
Identifying control types in reports
Creating advanced queries
Enhancing table design
Sharing, integrating, and analyzing data

Course Prerequisites/Corequisites

CIS111

Required Textbook(s) and Resources

These are the materials you will need to purchase for the course:

Shellman, M., & Vodnik, S. (2017). *New Perspectives Microsoft® Office 365 & Access 2016: Intermediate, 1st Edition*. Cengage Learning. ISBN: 9781305880290

Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements. Where applicable, Tiffin University has obtained permission to use copyrighted material.

Minimum Student Technology Requirements

In order to have a quality learning experience in your online courses, the University requires that your primary computer (the computer used to access course materials and on which you will be required to install course-specific software) meets or exceeds certain specifications. Click on the following link to view the specifications:

- [PC Recommendations](#)

Time Management

Time management is an important part of academic success. Please refer to the approximate (average) times noted below for readings and assignments to help plan your time accordingly.

Course Content

Please refer to individual activities for assessment guidelines.

WEEK 1				
Course Topics	Databases are everywhere Filters Sorts Access versus Excel Report basics			
Read/Review				Approx. Time
Textbook, Lectures, and Other Resources	Module 1 Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.			1.00 hrs. 1.00 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time	
Introductory Discussion: Initial Post	CLO(s): n/a	Monday	0.75 hrs.	
Discussion 1: Initial Post	CLO(s): 1, 2	Wednesday	1.00 hrs.	
Discussion 2: Initial Post	CLO(s): 1, 2, 3	Wednesday	1.00 hrs.	
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.	
Assignment	CLO(s): 1, 2, 3	Sunday	5.00 hrs.	
Introduction to Week 7 Course Project	CLO(s): 1, 2, 3, 4, 5, 6, 7, 8, 9	Week 7	See Week 7	
Approximate Weekly Time on Task (includes resources and activities)				10.75 hrs.
WEEK 2				
Course Topics	Relational databases Queries			
Read/Review				Approx. Time
Textbook, Lectures, and Other Resources	Modules 1, 2 Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.			4.00 hrs. 1.00 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time	
Discussion 1: Initial Post	CLO(s): 1, 3	Wednesday	1.00 hrs.	
Discussion 2: Initial Post	CLO(s): 1, 3	Wednesday	1.00 hrs.	
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.	
Assignment	CLO(s): 1, 3	Sunday	5.00 hrs.	
Approximate Weekly Time on Task (includes resources and activities)				13.00 hrs.
WEEK 3				
Course Topics	Updating a database Creating and running a query Filtering data Changing a datasheet's appearance Creating a calculated field Using aggregate functions			
Read/Review				Approx. Time
Textbook, Lectures, and Other Resources	Module 3 Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.			5.00 hrs. 1.00 hrs.
Activity Type	Course Learning Outcomes	Due	Approx.	

			Time
Discussion 1: Initial Post	CLO(s): 4, 7, 8, 9	Wednesday	1.00 hrs.
Discussion 2: Initial Post	CLO(s): 1, 2, 7, 8, 9	Wednesday	1.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.
Assignment	CLO(s): 3, 4, 5, 6, 7, 8	Sunday	6.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			15.00 hrs.

WEEK 4			
Course Topics	Creating forms Modifying a form Sorting records in a form Identifying form sections Revising forms Using form views Identifying control types in forms		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Modules 4 and 6 Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		5.00 hrs. 2.00 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion 1: Initial Post	CLO(s): 1, 2, 3, 5	Wednesday	1.00 hrs.
Discussion 2: Initial Post	CLO(s): 1, 2, 5	Wednesday	1.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.
Assignment	CLO(s): 3, 4, 5, 6, 7, 8	Sunday	5.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			15.00 hrs.

WEEK 5			
Course Topics	Creating reports using report tools Modifying a report Sorting records in a report Identifying report sections Revising reports using report views Identifying control types in reports		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Module 7 Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		4.00 hrs. 1.00 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion 1: Initial Post	CLO(s): 8	Wednesday	1.00 hrs.
Discussion 2: Initial Post	CLO(s): 8	Wednesday	1.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.
Assignment	CLO(s): 8	Sunday	6.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			14.00 hrs.

WEEK 6			
Course Topics	Creating advanced queries Enhancing table design		
Read/Review			Approx.

			Time
Textbook, Lectures, and Other Resources	Module 5 Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		5.00 hrs. 1.00 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion 1: Initial Post	CLO(s): 4, 7, 9	Wednesday	1.00 hrs.
Discussion 2: Initial Post	CLO(s): 4, 7, 9	Wednesday	1.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.
Assignment	CLO(s): 4, 7, 9	Sunday	6.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			15.00 hrs.
WEEK 7			
Course Topics	Sharing, integrating, and analyzing data		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	All Modules Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		4.00 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion : Initial Post	CLO(s): 3, 4, 5, 7, 8, 9	Wednesday	1.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.
Assignment	CLO(s): 1, 2, 3, 5, 7, 8	Thursday	5.00 hrs..
Course Project	CLO(s): 1, 2, 3, 4, 5, 6, 7, 8, 9	Thursday	10.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			21.00 hrs.
Approximate Time on Task for Entire Course			103.75 hrs.

Grading Structure

Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Introductory Discussion	n/a							0
Discussion 1	15	15	15	15	15	15	15	105
Discussion 2	15	15	15	15	15	15	n/a	90
Assignment	90	90	90	90	90	90	90	630
Course Project							175	175
Total	120	120	120	120	120	120	210	1000

Activity Categories	Percentage of Total Points
Discussion	20%
Assignments	63%
Course Project	17%
Total	100%

Grading Scale

Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	<60%

Please see the Course Policies document for grade appeal information.

Course Policies and University Services

Course Policies

Additional requirements for the course can be found in the Course Policies document. Please read the document and familiarize yourself with those policies to guide you through the course.

FERPA

The Family Educational Rights and Privacy Act (FERPA) protects student information. Other than directory information, such as name, address, phone number, etc., students must give consent for individuals to gain access to a student's educational record, including grades, transcripts, and behavior reports (unless the student is under the age of 18). Students also have the right to review their educational records. For a more detailed explanation, please see the Student Handbook.

FROM THE OFFICE OF EQUITY, ACCESS, AND OPPORTUNITY

Nondiscrimination Policy

Tiffin University is committed to a policy of non-discrimination and equal opportunity for all students, applicants for admission, and is committed in policy and practice to ensuring equal access to educational opportunities for all regardless of the person's race, religion, personal appearance, color, sex, pregnancy, political affiliation, social-economic class, place of business, residence, religion, creed, ethnicity, national origin (including ancestry), citizenship status, physical or mental disability, age, marital status, family responsibilities, sexual orientation, gender, gender identity, gender expression, veteran or military status (including special disabled veteran, Vietnam-era veteran, or recently separated veteran), predisposing genetic characteristics, domestic violence victim status] or any other protected category under applicable local, state or federal law. http://www.tiffin.edu/academics/calcat/2016_17_Academic_Bulletin_062016.pdf

All complaints of sexual harassment/misconduct, domestic violence, dating violence, bullying, cyber-bullying, stalking, or discrimination should be reported to Dr. Perry-Fantini, Assistant Vice President for Diversity & Equity Officer/Title IX Coordinator, perryfantinis@tiffin.edu or 419-448-3504. You can report incidents or complaints at http://www.tiffin.edu/institutionaldiversity/titleix/Incident_Reporting.pdf.

The Office of Disability Services supports the institutional commitment to diversity by providing educational opportunities for qualified individuals with disabilities through accessible programs and services in compliance with Section 504 of the Rehabilitation Act of 1973 and Title III of the Americans with Disabilities Act (ADA) of 1990. If you need reasonable accommodations due to a documented disability, you are required to contact the Sally Kloepfer, Director for Disability Services at kloepfers@tiffin.edu or 419-448-3021.

Veterans

Please refer to your Moodle Home page for services for veterans, service members, and their families.

Moodle and Non-Moodle Technical Support

Blackboard Student Services will provide 24x7 Moodle helpdesk support for all Tiffin University students and faculty. Locate contact information for Blackboard Student Services (Moodle-related issues) and for Tiffin University ITS helpdesk (non-Moodle related issues) on your Moodle Home page.

This syllabus is subject to change at the discretion of the University.