



## Graduate Course Syllabus

### IT 560: Database Application for Data Analysis

Center: Online

#### Course Prerequisites

IT 500 and IT 510

#### Course Description

This course focuses on business problem analysis to determine data needs, and focuses on developing problem solutions. Solutions consist of creating databases and using software tools to manipulate them in order to extract useful information for business decision support. Students learn how to construct interfaces to enter and retrieve data from large databases. Various types of data analyses are covered as well as database security issues from the user perspective.

#### Course Outcomes

- Describe the process of designing and constructing relational databases
- Identify the underlying structures of database tables
- Gather and organize critical business information, design a database based on this information, and retrieve and modify that information in a useful manner
- Use accepted data modeling procedures to design a relational database
- Construct user interfaces to enter and retrieve data from large databases
- Perform data analysis, including data normalization
- Evaluate critical real-world issues including application integration and securing data against disclosure and loss

#### Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through SNHU's online bookstore, [MBS Direct](#), rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

*Wiley Pathways Introduction to Database Management*

Gillenson, Ponniah, Kriegel, Trukhnov, Taylor, Powell and Miller

John Wiley & Sons, Inc.

2008

ISBN: 978-0-470-10186-5

Southern New Hampshire University students are able to obtain discount, often free, Microsoft software for IT and DAT courses through the DreamSpark program. Head to the [SNHU Academic Software Center](#) and request an account from the right panel to begin managing your software.

Additional instructions can be found here:

[http://it.snhu.edu/instructionalsupport/instructions\\_dreamspark\\_software.pdf](http://it.snhu.edu/instructionalsupport/instructions_dreamspark_software.pdf)

### Software Requirement

This course requires the use of the SNHU VDI (virtual desktop) environment. Directions to access the VDI are available here: [VDI Instructions](#).

### Optional Materials

*Your Office: Microsoft Access 2010 Comprehensive*

Kinser, Lending, Nightingale, Hammerle and Moriarity

Pearson

2011

9780132560887

### Instructor Availability and Response Time

Your class interaction with your instructor and your classmates will take place in Blackboard on a regular, ongoing basis. Your instructor will be active in Blackboard at least five days a week, and you will normally communicate with your instructor in the open Blackboard discussion forum so that your questions and the instructor's answers benefit the entire class. You should send emails directly to your instructor only when you need to discuss something of a personal or sensitive nature, and in those cases 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	9	20	180
Short Papers	2	100	200
Activities	2	100	200
Final Project	2	200	400
		<b>Total Course Points:</b>	980

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

Total Points: 980				
Grade	Numerical Equivalent	Points	Points Equivalent	
			Lower	Upper
A	93-100	4.00	911	980
A-	90-92	3.67	882	910
B+	87-89	3.33	853	881
B	83-86	3.00	813	852
B-	80-82	2.67	784	812
C+	77-79	2.33	755	783
C	73-76	2.00	715	754
F	0-72	0.00	0	714
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 Course Information area in the Assignment Guidelines and Rubrics folder.

### Weekly Assignment Schedule

The Learning Modules area in Blackboard contains one module folder for each week of the course. All reading and assignment information can be found in the folders. All assignments are due by 11:59 p.m. Eastern Time on the last day of the module week.

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

Module	Topics and Assignments
1	Relational Databases and Business Reading: <i>Wiley Pathways Introduction to Database Management</i> , Chapter 1 1-1 Discussion: Database Design 1-2 Chapter Pre-Tests and Post-Tests 1-3 Final Project Review and Planning 1-4 Short Paper: Data Accuracy
2	Underlying Structures of Databases Reading: <i>Wiley Pathways Introduction to Database Management</i> , Chapter 2 2-1 Discussion: Merging Databases 2-2 Chapter Pre-Tests and Post-Tests 2-3 Final Project Milestone One: Final Project Wiki: Company Profile

3	<p>Data Modeling</p> <p>Reading: <i>Wiley Pathways Introduction to Database Management</i>, Chapter 3</p> <p>3-1 Discussion: Entities, Attributes, and Identifiers</p> <p>3-2 Chapter Pre-Tests and Post-Tests</p> <p>3-3 Entity-Relationship Diagram Activity</p>
4	<p>Designing a Database</p> <p>Reading: <i>Wiley Pathways Introduction to Database Management</i>, Chapter 4</p> <p>4-1 Discussion: ERD Conversion</p> <p>4-2 Chapter Pre-Tests and Post-Tests</p>
5	<p>Normalization and Data Analysis</p> <p>Reading: <i>Wiley Pathways Introduction to Database Management</i>, Chapter 4</p> <p>5-1 Discussion: Normalization</p> <p>5-2 Chapter Pre-Tests and Post-Tests</p> <p>5-3 Final Project Milestone Two: Final Project Wiki: Conceptual Design</p>
6	<p>Implementing a Database</p> <p>Reading: <i>Wiley Pathways Introduction to Database Management</i>, Chapters 4 and 5</p> <p>6-1 Discussion: Negotiating Business Rules</p> <p>6-2 Chapter Pre-Tests and Post-Tests</p> <p>6-3 Final Project Milestone Three: Final Project Wiki: Database Implementation Plan</p>
7	<p>Using MS Access to Create the Database</p> <p>7-1 Final Project Milestone Four: Continue Work</p> <p>7-2 Access Activity</p>
8	<p>Data Access and Manipulation</p> <p>8-1 Discussion: Data Access Scenarios</p> <p>8-2 Discussion: Final Project Presentations</p> <p>8-3 Final Project Milestone Four: Relational Database Plan Presentation</p>
9	<p>Improving Data Access</p> <p>Reading: <i>Wiley Pathways Introduction to Database Management</i>, Chapter 8</p> <p>9-1 Discussion: Performance Issues</p> <p>9-2 Short Paper: Evaluating Databases</p>
10	<p>Analyzing Data for Decision-Making</p> <p>10-1 Discussion: Query Errors</p> <p>10-2 Final Project Milestone Five: Final Product: Relational Database</p> <p>Group Evaluation Form</p>

### Attendance Policy

Online students are required to post to the Blackboard discussion board during the first week of class. If a student does not submit a posting to the discussion board during the first week of class, the student is automatically withdrawn 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 College of Online and Continuing Education Guide to Student Success**

Review the [guide to student success](#).

**Diversity and Disability Statement**

The College of Online and Continuing Education (COCE) at SNHU values diversity and inclusion. SNHU strives to create inclusive and welcoming academic environments. If there are aspects of the instruction or design of this course that present barriers to your inclusion, please notify the Disability Resource Center (DRC) as soon as possible. We will work with you and your instructor to address needs and concerns.

We encourage all students with known or suspected physical, medical, sensory, psychiatric, and/or learning disabilities to register with the Disability Resource Center (DRC) in order to assess learning needs and take advantage of available academic accommodations and support services. We look forward to hearing from you. Our contact information is below.

Disability Resource Center (DRC)

(877) 591-4723 (select option 4)

(877) 520-8916 (fax)

[drc@snhu.edu](mailto:drc@snhu.edu)

We welcome COCE students, faculty, and staff to consult with the Disability Resource Center (DRC) on disability-related questions or concerns.

**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 College of Online and Continuing Education Withdrawal Policy**

Review the [full withdrawal policy](#).

**Southern New Hampshire University Policies**

More information about SNHU policies can be found on the [policy page](#).

**Assessment Calibration and Student Work Samples**

For the purpose of continuous improvement of our educational training, Southern New Hampshire University's College of Online and Continuing Education may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you have any questions or concerns, contact your advisor. If you would like to withdraw permission for use of your work, please contact the assessment calibration administrator at [assessmentcalibration@snhu.edu](mailto:assessmentcalibration@snhu.edu). See [this document](#) for more information.