

IT-234 – database concepts WELCOME & INTRODUCTION

Your instructor: Betsy McCall

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OFFICE HOURS:

By Appointment (face-to-face appointments done via Zoom)

Course description



This course prepares you to learn database programming.



You will be exposed to more advanced concepts of database management systems and SQL programming language.



This course will provide you with the business context in which data is used and how it is transformed into information.

Course description

You will identify the information needs and general usage of data within the modern business context and link the use of relational database management systems to the data needs of the organization. By the end of this course, you should be able to:

- IT234-1: Demonstrate the fundamental concepts of Database Management systems.
- IT234-2: Explore Data Definition Language(DDL) statements to define the database structure or schema.
- IT234-3: Explore Data Manipulation Language(DML) statements to manage data within schema objects.
- IT234-4: Discover more advanced SQL such as security commands and logins.
- **IT234-5:** Investigate analytical and non-relational database alternatives.
- **GEL-1.02:** Demonstrate college-level communication through the composition of original materials in Standard English.
- **GEL-8.02:** Apply Critical Thinking to use principles of sound reasoning.
- PC-1.2: Contribute to team goals and objectives through active participation and collaboration.

Learning outcomes

Discussion board virtual office forum

- I will review and respond to question on the discussion board regularly
- Please use the general Virtual Office forum for any questions that might benefit the entire class
 - Good way to share information
- Please refrain from posting any questions that are specific to your grade or is of a personal nature
 - Please use E-mail for this type of correspondence

Classroom policies

Unit weeks: Wednesday through Tuesday

• Please keep up with discussion forum postings

University Lateness Policy

- Detailed in syllabus
- 10% deduction per late week

Extenuating Circumstances

• Computer-related problems, Internet connectivity, and account issues are generally not considered extenuating circumstances

Classroom policies

Please follow the "Netiquette" rules stipulated in the course syllabus

End-of-Term

- No late work will be accepted after the end-of-term without an incomplete grade approval
- Please do not wait until the last minute to get work done!!!

Classroom discussions

The weekly discussions <u>reflect class participation</u> and are at the heart of our online classroom!!!

Only post in active unit weeks

Discussion posts made after a unit week has ended will not be reviewed

You need to post substantive contributions on three separate days in the active discussion forums

Remember to proofread your posts and ensure you are writing in complete, grammatically correct sentences

• You can use a word processor to compose as necessary

Class seminars

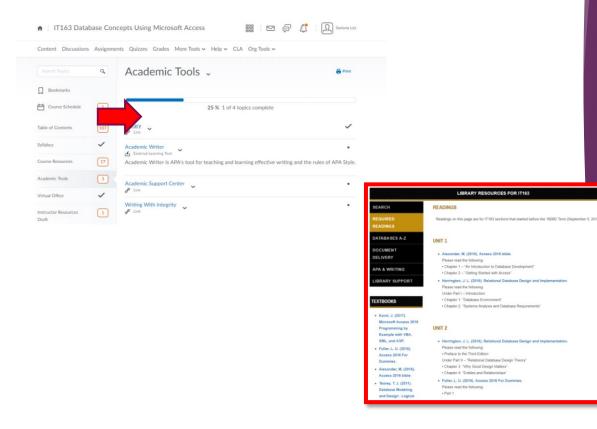
Option 1: Live Seminar Attendance

- It is in your best interest to attend our live seminars whenever possible
- A graded one-hour seminar will be held each week
- Seminars are always archived for you to review at your convenience
- Seminar grading guidelines are in the syllabus

Option 2: Alternative Assignment

- If you are unable to attend the live seminar, you must complete the specified alternative assignment
- No grade penalty with this option
- Submissions made in appropriate unit dropbox

To access the reading materials for this course, navigate to Academic Tools and select the Library link for the custom collection.



Textbooks – weekly readings • You will need to install and use Microsoft SQL Server Express and Microsoft SQL Server Management Studio (SSMS) for this course.



 You can download the latest versions of these free software products via the following links:

Microsoft SQL Server Express:

https://go.microsoft.com/fwlink/?linkid=866658

Microsoft SSMS:

https://docs.microsoft.com/en-us/sql/ssms/downloadsql-server-management-studio-ssms

Microsoft SQL SERVER is required

Microsoft VISIO is required

 You can obtain Microsoft Visio from the Microsoft Azure Dev Tools for Teaching site:

<u>https://kapextmediassl-a.akamaihd.net/IST/global/imagine/index.html</u>

Follow the directions at the above website to gain Microsoft Azure access.



Microsoft SQL SERVER & VISIO

MAC users will need to set up a Window environment on their systems to utilize Microsoft SQL Server & Visio.

• You may do this by using one of the following:

- BootCamp (https://support.apple.com/boot-camp)
- Parallels (you may purchase via Student Store)
- Virtual Box (download from http://www.virtualbox.org).

The PGU Technology Center has tutors that can help walk you through this process.

| UNIT | TOPIC |
|------|--|
| 1 | The Conceptual Database Model |
| 2 | The Logical Database Model & Database Normalization |
| 3 | The Physical Database Model |
| 4 | Using SQL Commands to Modify the Database Schema |
| 5 | Entering Data and Using SQL Commands to Query Existing Data |
| 6 | Using SQL Commands to Query Existing Data |
| 7 | Modify Data in an Existing Table |
| 8 | Using SQL Commands to Query Data in More Than One Table |
| 9 | Advanced SQL – Security & Transaction Control |
| 10 | Non-Relational Database Models |

Unit topics

grading

Grades and feedback are returned within five (5) calendar days of the applicable due date

GRADING CRITERIA/COURSE EVALUATION

| Gradebook | Unit 1 | Unit 2 | Unit 3 | Unit 4 | Unit 5 | Unit 6 | Unit 7 | Unit 8 | Unit 9 | Unit 10 | Total |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| Discussion | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 250 |
| Assignments | 50 | 75 | 75 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 550 |
| Seminar | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 200 |
| Total | 95 | 120 | 120 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 1000 |

| Grade | Points | Percent | Grade Point |
|-------|----------|-----------------|-------------|
| Α | 930-1000 | 93-100% | 4.0 |
| A- | 900-929 | 90 - 92% | 3.7 |
| B+ | 870-899 | 87 - 89% | 3.3 |
| В | 830-869 | 83 - 86% | 3.0 |
| B- | 800-829 | 80-82% | 2.7 |
| C+ | 770-799 | 77-79% | 2.3 |
| С | 730-769 | 73-76% | 2.0 |
| C- | 700-729 | 70-72% | 1.7 |
| D+ | 670-699 | 67-69% | 1.3 |
| D | 600-669 | 60-66% | 1.0 |
| F | 0-599 | 0-59% | 0.0 |