

CISM 410, Introduction to Data Management, Syllabus (3 credits)

COURSE DESCRIPTION

CISM 410 Introduction to Data Management - This course introduces students to concepts and terminology used in the field of data management. Students become familiar with Structured Query Language (SQL) and learn to use Data Definition Language (DDL) and Data Manipulation Language (DML) commands to define, retrieve, and manipulate data. The course also covers differentiations of data, including structured, unstructured, and quasi-structured (e.g. relational, hierarchical, XML, textual, visual); aspects of data management (quality, policy, storage methodologies); and foundational concepts of data security. Prerequisite: CISM 220 IT Operating Systems.

REQUIRED TEXTS & RESOURCES

Data Management: Databases and Organization - ISBN-10: 1943153035, ISBN-13: 978-1943153039

You will need to download and install MySQL Workbench from the following link. Newer versions will not work for this class, so please only install the version found here. http://oit.point.edu/downloads/mysql_workbench/

***Note there are 2 files available. The file ending in ".msi" is meant for Windows Operating Systems, and the file ending in ".dmg" is meant for Apple/Mac OS.**

NOTE: The Point University Bookstore may offer this textbook (s) in other formats. Information can found at www.pointuniversityshop.com.

COURSE SCHEDULE

Each course begins on a Wednesday with a Getting Started module before moving into the week 1-7 content. The introduce yourself forum is required during the Getting Started module in order to be counted present during this half-week of instruction. The introduce yourself forum is open from the start of the course to the first Sunday. All posts are due by Sunday at 11:59 p.m. Participation is required to be marked present for this time period. Keep in mind that in future weeks, forum due dates may be different.

Unless stated otherwise, graded assignments are due on the last day of the course week (Sunday). <http://point.edu/course-schedules/>

Learning Activities	Graded Assignments	
Preview Week	Course Introduction	
	Review the Syllabus	
	Review Preview Week Introduction	
	Participate in Course Orientation	
	Introduce Yourself Forum (registers attendance)	mandatory
Week 1	Introduction to Data Management	
	Reading – Section 1, Chapter 1	

	Reading – Chapter 2	
	Discussion Forum 1	1st response Day 5 2nd response Day 7
	Discussion Forum 2	1st response Day 5 2nd response Day 7
	Week 1 Chapter exercises	Day 7
	Week 1 reflection paper	Day 7
Week 2	Data Modeling and SQL	
	Reading: Section 2, Chapter 3	
	Reading: Chapter 4, and 5	
	Discussion Forum 1	1st response Day 5 2nd response Day 7
	Discussion Forum 2	1st response Day 5 2nd response Day 7
	Chapter exercises	Day 7
	Week 2 reflection paper.	Day 7
Week 3	One-to-one and Recursive Relationships	
	Reading: Chapter 6	
	Reading: Chapter 7	
	Discussion Forum 1	1st response Day 5 2nd response Day 7
	Discussion Forum 2	1st response Day 5 2nd response Day 7
	Week 3 Exercises	Day 7
	Week 3 reflection paper	Day 7

Week 4	Normalization, Relational Algebra, and SQL	
	Reading: Read chapters 8, 9, and 10	
	Discussion Forum 1	1st response Day 5 2nd response Day 7
	Discussion Forum 2	1st response Day 5 2nd response Day 7
	Week 4 reflection paper	Day 7
	Week 4 Research paper	Day 7
Week 5	Spatial and Temporal Data Management, Data Exchange Management, and Organizational Intelligence	
	Reading: Chapters 11, 12, and 13	
	Discussion Forum 1	1st response Day 5 2nd response Day 7
	Discussion Forum 2	1st response Day 5 2nd response Day 7
	Discussion Forum 3	1st response Day 5 2nd response Day 7
	Week 5 Review/Reflection	Day 7
Week 6	Cluster Computing and Dashboards	
	Reading: Chapter 17, 18	
	Discussion Forum 1	1st response Day 5 2nd response Day 7

	Discussion Forum 2	1st response Day 5 2nd response Day 7
	Week 6 reflection paper	Day 7
	Week 6 Research paper	Day 7
Week 7	Data Integrity and Administration	
	Reading: Chapter 22, and 23 in the text book	
	Online articles	
	Discussion Forum 1	1st response Day 5 2nd response Day 7
	Discussion Forum 2	1st response Day 5 2nd response Day 7
	Discussion paper	Day 7
	Week 7 reflection	Day 7

GRADING POLICIES

Course Evaluation Plan

An assessment instrument (checklist, rubric, quiz, etc.) will accompany each major graded assignment. See the instructions for specific assignment criteria and accompanying grading instruments.

Points Distribution

Graded assignments will be distributed as follows:

Assignments	Points Possible
Exercises (3@20pt)	60
Reflections (7@40pt)	280
Discussion Forums (15@20pt)	300
Discussion Paper	40
Research Papers (2@40pts)	80
Total Points:	760

Final Grades

The following scale will be used when calculating final grades:

A	90-100%	D	60-69%
B	80-89%	F	0-59%
C	70-79%		

Final grades will be posted according to the Academic Calendar:

<http://point.edu/academic-calendar/>

COURSE LEARNING GOALS & OBJECTIVES

Goal 1: To understand the role of data in an organization.

Objective 1.1: To learn why organizations design and maintain data management systems.

Objective 1.2: Understand terms related to database design and management

Objective 1.3: Understand the objectives of data and information management

Objective 1.4: Understand the relational model and relational database management system

Goal 2: To demonstrate an understanding of the relational data model.

Objective 2.1: Assess data and information requirements

Objective 2.2: Construct conceptual data models

Objective 2.3: Develop logical data models

Objective 2.4: Evaluate the normality of a logical data model, and correct any anomalies

Goal 3: Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database.

Objective 3.1: Evaluate the normality of a logical data model, and correct any anomalies

Objective 3.2: Develop physical data models for relational database management systems

Objective 3.3: To understand the workings of a relational database system

Objective 3.4: To understand the principles of querying a database with Structured Query Language

Goal 4: Demonstrate an understanding of the relational data model

Objective 4.1: Use an SQL interface of a multi-user relational DBMS package to create, secure, populate, maintain, and query a database

Objective 4.2: Formulate, using SQL, solutions to a broad range of query and data update problems

Objective 4.3: Understand database performance issues

Objective 4.4: Understand the basics of data warehousing

DISABILITY SERVICES

Point University is committed to providing qualified students with disabilities an equal opportunity to access a Point education through the provision of reasonable and appropriate accommodations and support services. Accordingly, Point complies with Title IX (<https://point.edu/title-ix>) of the Educational Amendments of 1972 and the subsequent reauthorization of that act, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 and subsequent amendments to that act. For more information about Disability Support Services, see the "Consumer Information" section of the website (<http://point.edu/disclosures>) and the "Student Services" section of this catalog, or contact the Director of Disability Services and College Section 504 Coordinator, at disability.services@point.edu.

COURSE EXPECTATIONS

Attendance

A student is expected to actively participate in each week of the class in which he or she is enrolled. Active participation each academic week includes submitting classwork in one or more of the following activities within the course during the week they are due: discussion forums, assignments such as (but not limited to) projects, papers, presentations, case studies, quizzes, or exams. Students may be absent up to 25% of the class. After absences exceed 25% of the session or term's total – in either consecutive or cumulative days – the student will be withdrawn from the class roster and assigned a grade on the basis of work completed at the time of withdrawal unless, because of exceptional circumstances, prior arrangements have been made with the professor and the Chief Academic Officer.

Students representing the university, such as student-athletes, remain responsible for submitting work online within the week it is due to be counted present. No student will be disadvantaged while representing the university. However, the responsibility is on the student to notify faculty no later than one week before missing class for any reason, to ensure time for content to be made available to them and for make-up work to be considered and arranged. It is expected that students will limit their absences outside of these required absences, as they will be dropped if they overcut the allowed number of absences.

The full attendance policy is found in the catalog (<https://point.edu/catalogs/>).

Etiquette & Netiquette

Students are expected to be respectful and well-mannered towards the instructor and their peers, whether in the physical classroom or the online course site. For guidance on meeting this expectation, particularly in the online environment, please see the materials provided during student orientation or reach out to advising.center@point.edu.

Policies

For academic policies governing attendance, late assignments, and student support, please refer to the Academic Catalog directly (<https://point.edu/catalogs/>).

COPYRIGHT AND FURTHER DISSEMINATION

All content within this course is intended for transformative, educational, and informational purposes under ([Fair Use](#)). These materials are not to be distributed or disseminated outside of this course for public use or profit-making ventures due to outside copyright laws. These materials are intended solely for education, personal training, and/or career building. All other uses are strictly prohibited.

Due to Copyright restrictions courses are unpublished thirty days after the completion of a course. If you wish to maintain access to your personal materials, save them before submitting to the course, or download them before the course is unpublished.