Department Chair: Merille Siegel
Program Coordinator: Eric Cameron

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Course Code: CIS 290   **Course Title:** **Database Fundamentals**

Department: **CIS/Engineering**

Course Description:
This course studies relational database design concepts using the entity-relationship model and database management using MySQL. Students are exposed to the major objects such as tables, indexes, views, and database design topics such as data normalization. Students will learn how to create and maintain a database as well as perform simple queries using Structured Query Language (SQL). Students will use an appropriate database management software package to complete several database projects.

Prerequisites: _CIS 125 OR CIS 160_

Credits: 3   **Lecture Hours:**   3   **Lab/Studio Hours:** 0   **Clinical/Fieldwork Hours:** 0

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Required Textbook/Materials:
Concepts of Database Management, Starks/Pratt/Last, 2018.

Additional Time and Supplemental Requirements:
Based on a 15 week semester, students are expected to complete approximately 6 hours per week of assigned work outside of class.

Course Learning Outcomes:
        Upon completion of this course, students will be able to:
- Define the basic terminology of database applications
- Describe the advantages and disadvantages of database processing
- Manipulate a database using SQL
- Use database management software to manage a database
- Apply normalization rules to create tables

General Education Outcomes: This is not a general education.

Grading Standards:

Activity	Contribution	Other Notes

Tests	40%	Makeups only in case of documented emergency.
Projects	35%	
Final Exam	20%	Cumulative
Attendance	5%	

Course Content:
(Schedule and suggested topics, readings, and assignments subject to change based on instructor and instructional resource)

TOPIC	Chapter
Syllabus Review Getting Started	1
Getting Started	1
The Relational Model	2
Structured Query Language	3
Data Modeling and the Entity-Relationship Model	4
Database Design	5
Database Design Crystal Reports	5 *Notes
Database Administration	6
Database Processing Applications	7
Big Data, Data Warehouses, and Business Intelligence Systems	8/Notes
Final Exam	

College Policies:
For Information regarding:
- PCCC's Academic Integrity Code
- Student Conduct Code
- Student Grade Appeal Process

Please refer to the PCCC Student Handbook and PCCC Catalog

Panther Alert:
The College will announce delayed openings, closings, and other emergency situations through the Panther Alert System. Students are encouraged to sign up for Panther Alert Notifications by logging into their student accounts through the PCCC website at www.pccc.edu and following Panther Alert System instructions.

Notification for Students with Learnings Disabilities:
If you have a disability, and believe you need accommodations in this class, please contact the Office of Accessibility Services at 973-684-6395, or email ods@pccc.edu. You should do so as soon as possible at the start of each semester. If you require testing accommodations, you must remind me (the instructor) one week in advance of each test.