

*CSCI 415-01 FILE PROCESSING & DATABASE SYSTEM*  
*Department of Mathematics and Computer Science*  
*School of Natural Sciences and Mathematics*  
*Fall Semester 2018-2019*

*Instructor:* Dr. Ramaier Sriram

*Office:* JST 111/112

*Office Hours:* 11:00 pm – 1:30 pm MWF, 1:00 – 3:00 TR  
& by appointment

*Phone:* 803-535-5522

*Prerequisites:* A grade of “C” or better in CSCI 207 or its equivalent

*Class time:* MWF 10:00 – 10:50 JST 109

*Textbook:* Database.Systems.The.Complete.Book.2nd.Edition.Jun.2008, Prentice.Hall.

*Reference:* Fundamentals of Database Systems by Elmasri and Navathe, 7e  
Data Modeling and Database Design - Narayan S. Umanath

*Course Description Overview, and Rationale:*

Database systems. File structures for database search, including indexing and hashing. The relational data model and the SQL language. Conceptual database design and normalization. Overview of other data models. 3 Credit Hours.

*Major concepts to be covered:*

- Data Modeling
- Application Design and Development
- Storage and File Structure
- Indexing and Hashing
- Query Processing Transactions
- Data Warehouses

This course is designed to prepare student in the following areas:

- Understanding the Relational Model
- Understanding Entity-Relationship Models
- Understanding Relational Database Design
- Understanding SQL

*Course Outcomes:*

Upon completion of this course students shall be able to demonstrate knowledge of the following:

Introductory Database Concepts	Homework, Quiz, Test
Database Planning and Database Architecture	Homework, Quiz, Test
The Entity-Relationship Model	Homework, Quiz, Test
The Relational Model	Homework, Quiz, Test
Relational Database Management Systems and SQL	Homework, Quiz, Test
Normalization	Homework, Quiz, Test
The Object-Oriented Model	Homework, Quiz, Test
The Enhanced Entity-Relationship Model & the Object-Relational Model	Homework, Quiz, Test
Introduction to Database Security	Homework, Quiz, Test
Transaction Management	Homework, Quiz, Test

Relational Query Optimization	Homework, Quiz, Test
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**Reading:**

Text book chapters & week

Chapter 1	Week
Chapter 2	Week
Chapter 3	Week
Chapter 4	Week
Chapter 5	Week
Chapter 6	Week
Chapter 7	Week
Chapter 8	Week
Chapter 10	Week
Chapter 11	Week
Chapter 12	Week
Chapter 13	Week
Data Warehousing	Week
Database Security	Week
FINAL	

**Grading:**

Midterm Exam	20%
Final Exam	20%
Quizzes	5%
Assignments	55%

Note: Home Work and Take-home Exam due on date, **in class. No late submissions.**  
**NO MAKEUP EXAM or QUIZ** will be given without proper excuse from the Vice President for Student Development and Services NO EXCEPTIONS!!!

**Grading Scale:**

A	$\text{cumulative points} \geq 90$
B+	$85 \leq \text{cumulative points} < 90$
B	$80 \leq \text{cumulative points} < 85$
C+	$75 \leq \text{cumulative points} < 80$
C	$70 \leq \text{cumulative points} < 75$
D	$60 \leq \text{cumulative points} < 70$
F	$\text{cumulative points} < 60$

**Attendance:** Attendance at every class meeting is required. A 10% final points penalty will apply when a student has 3 or more unexcused absence from the class meetings.

**Teaching Strategies and Methodologies:** Homework assignments are carefully chosen to cover the concepts in an understandable and practicable manner. The examples are intended to

test your level of understanding of each concept. Diligently attempt all assignments and bring your questions to class for further discussion. Please note that **Late Submissions** will not be accepted.

*Assurance Statement:* If you need accommodations in this class related to a disability, please make an appointment as soon as possible with the Office of Disability. Please contact Sadie Jarvis with disability services: 803-535-5285, [sjarvis@claflin.edu](mailto:sjarvis@claflin.edu), Corson Hall Room 121.

*Code of Honor Policy Statement:* Claflin University prohibits all forms of academic or scholarly dishonesty, including written or oral examinations, term and research papers or theses, modes of creative expression, and computer-based work. Scholarly dishonesty includes lying, cheating, plagiarism, collusion, and the falsification or misrepresentation of experimental data.  
(For social behavior, see Claflin University Student Handbook: Code of Conduct and Code of Ethics).

*Claflin University Early Alert Program:* As a part of our renewed focus on engaged learning, Claflin University has enhanced and expanded its current Early Alert Program. This program is designed to assist with your success and will be given a high priority as a strategy for this class. Should the instructor determine that you might benefit from taking advantage of these support services and campus resources, you will be referred for such additional support as a means to assist with successful completion of this course. It is further expected that you will comply with the referral and take advantage of the services offered. Please understand that such referrals are not a form of punishment, rather, they are intended to help you reach and achieve your academic and personal goal.

*Strategy for Excellence:* Please complete the designated readings prior to class, participate during the class meetings by raising questions to improve your understanding, express your mastery by responding to questions from peers, stop and make sure that you understand the discussions before going further. I will do my best to facilitate your excellent learning in this course.

*Guidelines for Civil and Responsible Use of Personal Technology:*

- ✓ Turn your cell phone completely off or leave it in silent mode inside your book bag;
- ✓ In rare case of an emergency when you think you need to leave it on, inform the instructor;
- ✓ Do not use the cell phone once you enter the class room and during the class meeting;
- ✓ Use of cell phone during exam, quiz is prohibited.