



## Course Syllabus

### IS220 – Introduction to Databases

---

<b>Catalog Description:</b>	Databases represent, nowadays, the standard technology for storing and querying data. This course focuses on the definition of the databases theory, starting from the definition of basic concepts, data modeling (ERD), mapping to relation schema and normalization and SQL & PL/SQL language.
<b>Credit Hours:</b>	3 Credit hours:      3 Lectures per week      0 Labs. per week      0 Recitation per week
<b>Prerequisites:</b>	IS 230–CS 252
<b>Course Learning Outcomes:</b>	<ol style="list-style-type: none"><li>1. Define the concept of databases, its purpose, advantages and concepts related to relational model.</li><li>2. Write a query statement based on SQL standards.</li><li>3. Design a correct ER diagram based on informal system description.</li><li>4. Apply the mapping and normalization rules to transform the ERD into a relational schema.</li><li>5. Develop program using SQL and PL/SQL.</li><li>6. Work effectively in groups and exercise leadership when appropriate</li><li>7. Present a topic in a compelling manner.</li></ol>
<b>Major Topics:</b>	<ul style="list-style-type: none"><li>• Introduction to Database Systems</li><li>• Data Modeling Using the Entity-Relationship (ER) Model &amp; UML Notations</li><li>• The Enhanced Entity-Relationship (EER) Model</li><li>• The Relational Data Model and Relational Database Constraints</li><li>• Conceptual-to-Relational Mapping</li><li>• Relational Algebra</li><li>• Basics of Functional Dependencies and Normalization for Relational Databases</li><li>• The SQL Database Language</li><li>• Database programming techniques</li><li>• Project Discussions</li></ul>
<b>Text Books:</b>	<ul style="list-style-type: none"><li>• Fundamentals of Database Systems, 6th Edition, Ramez Elmasri and Shamkant Navathe, Pearson, 2010. ISBN-10: 0136086209, ISBN-13: 978-0136086208</li><li>• Oracle Database 11g SQL, 1/E, Jason Price, Oracle Press, 2007. ISBN-13: 978-0071498500.</li></ul>



## Course Syllabus

### IS220 – Introduction to Databases

---

#### Grading:

- ⦿ The grading scale for this course is:

95 - 100	A+	Passing
90 - 94	A	Passing
85 - 89	B+	Passing
80 - 84	B	Passing
75 - 79	C+	Passing
70 - 74	C	Passing
65 - 69	D+	Passing
60 - 64	D	Passing
0 - 59	F	Failing

- ⦿ Final grades will be determined based on the following components:

- . 60% Semester Work
- . 40% Final Exam

- ⦿ Students may not do any additional work for extra credit nor resubmit any graded activity to raise a final grade.

- ⦿ Late submissions will not be accepted for any graded activity for any reason.

- ⦿ Students have one week to request the re-grading of any semester work.

#### Attendance Policy:

Students should attend 80% of the overall course hours taught in the semester as per the University regulations.

If a student fails to achieve this portion, he/she shall not be allowed to appear in the final exam and shall be awarded “DN” grade and repeat the course.

#### Cheating and Plagiarism Policy:

The instructor will use several manual and automated means to detect cheating and/or plagiarism in any work submitted by students for this course.

When a student is suspected of cheating or plagiarism, the instructor raises the issue to the disciplinary committee.



Information Systems Department

## Course Syllabus

IS220 – Introduction to Databases

---

**Communications:** Registered students will be given access to a section of the Learning Management System (LMS) for this course. LMS will be used as the primary mechanism to disseminate course information, including announcements, lecture slides, assignments, and grades.

Communication with the instructor on issues relating to the individual student should be conducted using CIS email, via telephone, or in person.