DEPARTMENT OF SCIENCE

COURSE OUTLINE – WINTER 2020

CS 2910 - Introduction to File and Database Management 3 (3-0-3) UT
15 Weeks, 90 Hours

INSTRUCTOR:	Franco Carlacci	**PHONE:**	780 539 2091
OFFICE:	C422	**E-MAIL:**	fcarlacci@gprc.ab.ca
OFFICE HOURS:	TBA		

CALENDAR DESCRIPTION:

The course includes basic concepts in computer data organization and information processing; hardware, physical organization, and access methods for fine storage; file I/O; introduction to database systems.

PREREQUISITE(S)/COREQUISITE: CS2010

REQUIRED TEXT/RESOURCE MATERIALS:

Fundamentals of Database Systems 7-th edition by R. Elmasri and S.B. Navathe, AddisonWesley. ISBN 0-13-608620-9.

DELIVERY MODE(S): CLASSROOM /LAB

COURSE OBJECTIVES:

This course will introduce students to :

- Database Systems Concepts and architecture
- The Relational Data model
- Basic and intermediate SQL
- Relational algebra and relational calculus
- Data modeling , entity -relationship (ER) model and enhanced ER models.
- Relational database design using ER and EER, Normalization

- File Structures, hashing, indexing and physical database design
- Distributed Databases, NOSQL systems, Big Data

LEARNING OUTCOMES:

As a result of taking this course, students will gain the ability to :

- use their knowledge of data models to design and implement databases.
- interact with DBMS using SQL
- write applications that make use of DBMS to administer user data.

TRANSFERABILITY:

University of Alberta
University of Calgary
University of Lethbridge
Athabasca University
Augustana Faculty, University of Alberta
Concordia University College
Grant MacEwan University
King's University College

Please consult the Alberta Transfer Guide for more information (www.albertatransfer.com)

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

EVALUATIONS:

Assignments:	35%
Quizzes:	15%
Midterm Exam:	20%
Final Exam:	30%

PLEASE READ THE FOLLOWING AND MAKE SURE YOU UNDERSTAND THAT :

There is a 30% penalty for late (less than 4 days) assignment. Assignments that are more than 4 days late will not be accepted. **I will be enforcing this rule with no exception.**

All work must be submitted via Moodle; no emailed assignments will be accepted**.**

Once an assignment has been marked and a grade assigned, I will not be entertaining any request to re-mark it unless a mistake has been made by me.

Exams will be written as scheduled. No rewrites will be given. If there is an excusable absence, the weighting of the missed exam will be added to the final exam weighting. If the absence is not excusable, a grade of 0% will be given. Absences due to a medical emergency must be supported by a physician's letter.

NOTE : YOU MUST GET A PASSING GRADE ON THE TESTING COMPONENT (IE. QUIZZES,MIDTERM,FINAL) OF COURSE FOR YOUR ASSIGNMENT MARKS TO COUNT TOWARDS YOUR FINAL GRADE.

CRITERIA:

(Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**. This means **DO NOT GET LESS THAN "C-" IF YOU ARE PLANNING TO TRANSFER TO A UNIVERSITY.**

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100	C+	2.3	67-69
A	4.0	85-89	C	2.0	63-66
A-	3.7	80-84	C-	1.7	60-62
B+	3.3	77-79	D+	1.3	55-59
B	3.0	73-76	D	1.0	50-54
B-	2.7	70-72	F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

- Databases and Database users
- Database Systems Concepts and architecture
- The Relational Data model
- Basic and intermediate SQL
- Relational algebra and relational calculus
- Data modelling , entity -relationship (ER) model and enhanced ER models.
- Relational database design using ER and EER, Normalization
- File Structures, hashing, indexing and physical database design
- Distributed Databases, NOSQL systems, Big Data

STUDENT RESPONSIBILITIES:

Students must make an effort to attend ALL classes and labs. If you have more than 5 un-excused absences you may be barred from writing the final exam.

Students are responsible for checking their gprcstudents.net email account on a regular basis for any course announcements.

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Admission Guide at http://www.gprc.ab.ca/programs/calendar/ or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

**Note: all Academic and Administrative policies are available on the same page.