GPRC

DEPARTMENT OF SCIENCE

COURSE OUTLINE – WINTER 2016

CS 2910 - Introduction to File and Database Management 3 (3-0-3) UT

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 sixth 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 :

• apply their knowledge of data models to design and implement databases.

• interact with DBMS using SQL

• write applications that make use 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:	30%
Quizzes:	10%
Project:	10%
Midterm Exam:	20%
Final Exam:	30%

GRADING 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 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

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.

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.