



CAMOSUN COLLEGE
Trades and Technology
Computer Science

ICS212
Database Management Systems
Fall 2019

COURSE OUTLINE

The calendar description is available on the web @

<https://online.camosun.ca/d2l/le/content/157367/viewContent/2270702/View>

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

(a) Instructor	Doug Greening
(b) Office hours	Weds 11:30-2:30 or email to arrange alternate time
(c) Location	Tec 267
(d) Phone	
(e) E-mail	GreeningD@camosun.ca
(f) Website	D2L: online.camosun.ca

2. Intended Learning Outcomes

This course provides a foundation for database administration in organizations using relational databases (Oracle). Students develop skills to operate, configure, backup and restore databases.

Upon completion of this course students will be able to:

- Operate a database
- Configure a database
- Administer users on a database
- Backup and restore a database
- Create a data warehouse

3. Recommended Materials

(a) Fernandez, Iggy, *Beginning Oracle Database 12c Administration: From Novice to Professional*, 2nd Ed, Apress, 2015, ISBN-13: 978-1-4842-0194-7

(b) *The Data Warehouse Toolkit*, Third Edition, Ralph Kimball, Margy Ross

(c) *The Data Lifecycle Toolkit*, Second Edition, Ralph Kimball, Margy Ross, Warren Thornthwaite, Joy Mundy, Bob Becker

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4. Course Content and Schedule

Note that the following schedule and content is subject to change.

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 to 9:20			ICS 212 X01A LAB		ICS 212 X01 LEC LAC 122
9:30 to 10:20					
10:30 to 11:20		ICS 212 X02 LEC TEC 181	TEC 259	ICS 212 X02A LAB TEC 259	
11:30 to 12:20	ICS 212 X02B LAB TEC 259				
12:30 to 1:20			Office Hours		
1:30 to 2:20					
2:30 to 3:20			ICS 212 X01B LAB TEC 259		
3:30 to 4:20					
4:30 to 5:20					
5:30 to 6:20					

Week	Dates	Lectures	Labs
1	Sept 02 - 06	01 – Course Overview 02 – Normalization 03 – Intro to DBMS	No Labs
2	Sept 09 - 13	04 – Relational Algebra 05 – SQL & PL/SQL 06 – Triggers	Lab01 – Normalization
3	Sept 16 - 20	07 – Architecture 08 – Planning	Lab02 – Trigger, Functions, Procedure
4	Sept 23 - 27	09 – SW Install	Lab03 – Planning & Oracle XE

		10 – DB Create	Install
5	Sept 01–Oct 04	11 – Physical Design 12 – User Management	Lab04 – Oracle 12c Install
6	Oct 07 - 11	13 – Data Loading 14 – Taking Control	Lab05 – Physical Design
7	Oct 14 - 18	Review Midterm (Weeks 1-6)	No Labs
8	Oct 21 – 25	15 – Monitoring 16 – Fixing Problems 17 – Backups	Lab06 – User Management
9	Oct 28 – Nov 01	18 – Recovery 19 – Big Picture & SOPS 20 – Intro to Data Warehouse	Lab07 – Data Import/Export & DBA
10	Nov 04 – 08	21 – Lifecycle 22 – Dimensional Modeling	Lab08 – Flashback, SOP & Explain
11	Nov 11 – 15	23 – Creating Dimensional Model 24 – Case Study 25 - ETL Overview	Lab09 – DW: Star Schema
12	Nov 18 – 22	26 – Transformation 27 – PL/SQL Review 28 – Data Quality	Lab10 – DW: ETL
13	Nov 25 – 29	29 – SQL Functions 30 - Oracle Summaries 31 - Data Mining	Lab11 – DW: Analytics
14	Dec 02 – 06	Review	

5. Basis of Student Assessment (Weighting)

- 30% Lab Exercises
- 10% Midterm
- 60% Final (Written and Practical)

(a) Lab Exercises

Must complete all labs.

Late labs are subjected to a 100% penalty and will be marked as a zero, except by the instructor's prior written permission or in the presence of a dire and documented short-term medical or family emergency.

(b) Exams

Must achieve a minimum average of 55% on the combined final exams (written and practical) to pass the course.

No leaving during any examination unless an accommodation in place.

6. Grading System

- Standard Grading System (GPA)
- Competency Based Grading System

8. College Supports, Services and Policies



Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ <http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

Department Policies:

Grade review: You have 7 days after marks are posted to review with your instructor.

Academic Dishonesty:

1st violation: minus the weight of the deliverable and a note on your departmental file.

2nd violation: F in the course

3rd violation: Student Conduct [Policy](#) E-2.5 is applied

Missed Examinations/Quizzes: If a student misses a quiz or an exam, a mark of zero will be assigned unless there are extenuating circumstances. In such cases, the proportion of grade assigned to the missed quiz or exam will be added to the proportion assigned to the final exam. The final exam will be held during exam week. NO consideration will be given to any student wishing to write the exam at any other time than that assigned.

Electronic Devices: The school's policy regarding electronic devices is that any student who has a cell phone or other unauthorized electronic device (ie. ipad, laptop, playbook, etc.) on their person or around their desk during an exam will be guilty of cheating and will a grade of "F" for the course.

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

A. GRADING SYSTEMS <http://www.camosun.bc.ca/policies/policies.php>

The following two grading systems are used at Camosun College:

1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for

	this course, practicum or field placement.
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B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <http://www.camosun.bc.ca/policies/E-1.5.pdf> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.