

CALIFORNIA STATE UNIVERSITY, SACRAMENTO
College of Business Administration

MIS 155 - Fourth Generation Language Application Development

Course Syllabus

Instructor: Dr. Russell Ching

Office: TAH-2094

Office Phone: 278-7197 FAX: 278-6489

E-mail
 (Virtual office hours): rching@saclink.csus.edu

URL: www.csus.edu/indiv/c/chingr/mis118/index118.htm

Class Periods: 6:00-8:50 p.m. Wednesday

Office Hours: 5:00-5:45 p.m. Wednesday
 And by appointment

Required Textbooks: Guide to Oracle9i, Joline Morrison and Mike Morrison. Thompson Course Technology (2003). ISBN: 0-619-15959-6.

Required Material: At least two 3 ½ -diskettes
 9×12 manila envelope

Required Item: E-mail address¹

Prerequisite: MIS 150 Database Systems for Business or
 MIS 211 Information Systems II (graduate students)

Course Objectives

The primary objectives of this class are to familiarize and provide you with skills for developing applications in a fourth-generation language (4GL). Two very popular and powerful microcomputer software, Oracle Developer 6.0 and Oracle9i, have been chosen to achieve these objectives. Developer will not only expose you to a 4GL, it may enhance your (job)

¹ E-mail your address to me by Thursday, January 26. Please indicate in the subject line that you are an MIS 155 student. If you do not already have an e-mail address, open a Saclink account (*it's free*). Instructions are available in any of the campus' computer labs. Non-university e-mail addresses are accepted. E-mail messages will be frequently sent throughout the semester.



marketability since several local employers have adopted it. Although the skill sets you develop will lead to at least minimal proficiency, attention should be paid to understanding the underlying concepts. The concepts learned in this as well as the MIS core classes can be applied to a broad range of 4GLs.

The following four subobjectives support the achievement of the primary objectives:

Subobjective 1: Object-based and event-driven development concepts

To acquire an understanding of object-based and event driven application development (in contrast to using a procedural language).

Subobjective 2: Host language concepts

To acquire an understanding of using a 4GL as a host language for SQL.

Subobjective 3: Online processing in a GUI environment

To apply design concepts underlying the creation of effective online processing applications in a graphic user interface (GUI) environment.

Subobjective 4: Database concepts

To expand your understanding of database as an information resource, and relational algebra through SQL.

In addition to supporting the primary objectives, the subobjectives are intended to increase the breadth of your IS background, and NOT to make you a professional programmer. Although this course takes a pragmatic approach to learning, it exposes you to concepts many employers covet.

Note. This is not an Oracle or Developer class per se. The software has been chosen as the means to convey the objectives of the course.

Achievement of the Objectives

The fulfillment of these objectives hinges on the application of your IS *engineering skills* (i.e., analysis, design, programming, data structures, database). It requires you to integrate and expand upon the fundamental concepts that were presented to you in your other MIS classes. Unfortunately, deficiencies in these areas will lead to difficulties and frustrations, and ultimately, a poor grade. Time and the amount of material to be covered do not permit an in-class review of them. Hence, when you are unfamiliar with them, you are expected to review/learn them on your own.

Three Rules to Success

Your success in this class hinges upon three important rules:



- Take pride in your work and always present your best side,
- Learn to work smarter, not harder,
- Have fun doing the above.

Rather than approaching this class as another exercise in academe, think of it as a learning experience that adds value to your skill sets.

Note. Two *necessary but not sufficient conditions* to succeed in this class are diligence and *common sense*.

Since you have been preparing yourself for a career in MIS, you are expected to explore and experiment on your own. Most of the material should be very intuitive. Remember, you are above average in computer literacy and most non-IS people look up to your knowledge.

Goal

Upon completing this class, you will not necessarily be an expert. A major concern of this class is providing you an opportunity to bring together the various pieces of your application development knowledge toward building a *product*. Unfortunately, the time constraint placed on this class and your obligations to your other classes limit our involvement to a survey of Developer and Oracle9i. However, you should possess enough knowledge to expand into either package if you so desire. Thus, upon the completion of this class, you should possess sufficient knowledge to intelligently develop such applications while having gained the experience of working with Developer and Oracle9i.

Note. Often, employers do not expect candidates to be highly proficient in the software they use. Instead, familiarity is preferred over proficiency since most shops maintain their own standards and techniques they want you to assume (if hired).

Grades

Final letter grades will be assigned according to the total number of points you have obtained through exams, programming assignments and homework relative to the total possible number of points.

Note. Listed are the maximum possible points. The actual total may be reduced for certain segments. However, it will never exceed the maximum.

	Points
Midterm exam (1)	100
Final exam	100
Individual programming assignments (P1-P5)	200
Group project (P6)	100
Homework (H1)	<u>30</u>
Total points	530



Final letter grades are assigned according to the following *rule of thumb*:

477	-	530	(90-100%)	A
424	-	476	(80-89%)	B
371	-	423	(70-79%)	C
292	-	370	(55-69%)	D
< 292		Less than 55%		Failing grade

Pluses and minuses will be awarded along the extremes (i.e., greater than 2% below the upper limit or upper limit minus 2%, and less than 2% above the lower limit or lower limit plus 2%, respectively). Because this is a rule of thumb, the final grade distribution is subject to change in the students' favor. If the median final grade falls below 75 percent, the final grade distribution will be adjusted accordingly.

Incomplete Grade (W)

An incomplete grade (I) will only be issued in accordance to the College of Business Administration policy. Among the conditions imposed by the instructor that must be met (but are not limited to) are (1) a current passing grade (70 percent or better), (2) the successful completion of all prior assignments and exams, and (3) an unforeseen and unusual event beyond your control which prevents you from completing the semester and can be documented and verified (employment-related events do not qualify). (4) An incomplete will only be considered after it has been determined that a withdrawal (W) cannot be issued. If you do not meet (1) through (4), you do not qualify for an incomplete. As stipulated by the University, an incomplete cannot be assigned when it is necessary for the student to attend additional class meetings to complete the course requirements.

Et cetera

Please keep the following points in mind:

- Final grades can only be changed if a posting error has occurred. Grades cannot be changed for any other reason (per the Registrar's Office).
- Grades are based on the published assignments. No extra credit assignments will be made available at the end of the semester to boost your grade (i.e., *what you see is what you get*).
- Reasons not related to your performance in this class (e.g., scholarships, grants, sponsorship, etc.) will not be considered in determining your semester grade. Not only is this unethical, it is unfair to other students who have earned their grades.

Grade Appeals



Grade appeals on assignments and exams must be made within 14 calendars from the date the item was returned to the class (not the date you received it), **no exceptions**. All grade appeals must be made in writing (typed, not handwritten). Your appeal must specifically identify the error and suggest the correct answer, including references that support your argument. The original, unaltered file(s) and/or document(s) must be submitted with an assignment grade appeal. Please be aware that an assignment or exam grade may be appealed only once.

Examinations

A midterm and final examination will be given during the semester; both are closed book, closed notes. Each consists of 2-3 essay questions and a problem. Material will be drawn from the textbook readings, any other assigned readings, and class lectures and discussion. **Emphasis will be placed on your conceptual understanding of the material and NOT on rote memory.** Hence, understanding the application of the concepts will greatly enhance your grade.

The exam dates appear in the tentative semester schedule. A list of possible essay questions will be posted a week before the exam on the MIS 155 web page. The actual exam questions will be drawn from the list.

Make up examinations will only be permitted only with a bona fide excuse. The exam must be completed within a week (i.e., seven calendar days) of the scheduled date. Once the exams have been returned, no make ups can be scheduled. Every effort will be made to return the exams during the following class session. However, for obvious reasons, exams cannot be returned if a make up is pending.

Note. The PowerPoint slides used in class (i.e., notes) will be available for downloading from the MIS 155 web page about 12 hours before class. It is recommended you bring them to class and make YOUR notes on them. The slides **by themselves** convey little information and will not help you prepare for the exams; your notes add meaning to them.

Programming and Homework Assignments

The six programming assignments scheduled for this semester involve the development of a single application in different stages. Thus, in addition to introducing new concepts, all programming assignments build upon preceding assignments. Assignments will be posted on the MIS 155 web page.

All programming (P1-P5) and homework (H1) assignments should reflect the individual's effort. Although working in a group is not discouraged, the submitted work should not be a copy (either directly or closely) of another person's work or the product of a group effort. The assignments are moderately challenging, yet simple enough to promote learning. The *one assignment, one grade* rule will be strictly enforced.

Collaborative effort underlies the group programming assignment (P6). Hence, the submitted assignment should be the product of all members. Team composition is based on personal



preference. The number of members cannot exceed 4 (no exceptions). P6 includes a peer assessment component which may affect individual grades.

Assignments are due at the beginning of the class session. **No late assignments will be accepted (no exceptions, please don't ask²).** Please keep in mind that assignments can be submitted early, but never late.

Note. E-mailed or FAXed assignments will not be accepted.

Submission Requirements

For individual assignments (P1 through P5):

- Securely place all material in a 9 × 12-inch manila envelope.
- Copy all program files (along with any others required to test your assignment) to a 3-1/2 inch DOS-formatted diskette, a CD or a USB memory stick (i.e., flash memory). Be sure to perform a virus check on your files. Also, be sure all required files have been copied to and can be accessed from your diskette. An assignment cannot be resubmitted due to an error of this nature.

Note. Before submitting your assignment, be sure to make a backup copy for yourself.

- Be sure to include all tangibles with your assignments. Credit cannot be awarded for assumed work.
- Print your name on the outside of the folder, diskette (CD, USB memory stick) and all supporting documents

Note. Placing your assignment in a manila envelope helps ensure your material will not be lost. Please do not use a manila folder or anything similar.

For the team assignment (P6):

- Place all material in a three-ring binder with index tabs to identify each required item.
- Copy all program and data files (along with any others required to test your assignment) to a 3½-inch DOS-formatted diskette, CD or USB memory stick (i.e., flash memory) with all required files. Be sure your application works! As in the case of individual assignments, a group assignment cannot be resubmitted due an error of this nature.

Note. Every member of the group is responsible for all the material submitted. Everyone will receive the same score regardless of whether the person who was assigned to submit

²Please keep in mind that *making an exception for you, means taking an opportunity from someone else.*



the assignment included everything or part of it. If you are unsure, check the submission yourself!

- Include all tangibles with your assignments. Credit cannot be awarded for assumed work.
- Print the names of all team members on the outside of the folder, diskette and supporting documents

Check your diskette, CD or memory stick for viruses! Assignments submitted on a diskette with a virus will not be graded.

Classroom Etiquette (*Civility*)

The basic rule underlying classroom etiquette is *having consideration for others*. During class, you are expected to conduct yourself professionally and courteously. The following list of *guidelines* has been assembled.

- Do not interrupt others while they have the floor. You will always be given a chance to contribute to the discussion.
- Be tactful and thoughtful when responding to another person's remarks.
- Turn off all cellular phones, pagers and wrist watch alarms (no distractions).
- Do not conduct personal conversations during class. Even though you may be speaking in a very low tone, your voice will carry and disturb others. Please conduct your conversations outside of the classroom.
- If you need to leave or enter the classroom while class is in session, please do so in a non-disruptive manner. This includes (but is not limited to) walking in front of the class, letting the door slam, and making noises that prevent others from listening. If you need to leave class early, please sit near the exit.
- Please, no eating in the classroom.
- Sleeping will not be tolerated. If you are tired, please rest outside of the classroom. If you are caught sleeping during class, you will be asked to leave.

If you cause a disruption or disturbance, you will be asked to leave the classroom. Persistent and blatant disregard for etiquette will lead to a 20 percent reduction in your final grade (approximately 2 letter grades). Disruptive behavior in class will lead to your permanent removal.



Academic Dishonesty

Unfortunately, the subject of academic dishonesty must be discussed for those who are inclined toward such activities. The university's policy is discussed in the following paragraphs. Please, there is no need to engage in any unethical behavior in this class! If you need help, my door is always open.

Academic dishonesty involves acts which may subvert or compromise the integrity of the educational process of the university. Included is any act by which a student gains or attempts to gain an academic advantage for him/herself, or another, by misrepresenting his/her, or another's work or by interfering with the completion, submission, or evaluation of work. These include, but are not limited to, accomplishing or attempting any of the following acts:

- Using any unauthorized materials during an examination.
- Copying from another student's paper during an examination.
- Collaborating (i.e., talking, passing notes and/or signals, etc.) during an examination with any other person by giving or receiving information without specific permission of the instructor.
- Electronically transmitting information to other students during an exam. This includes cell (mobile) phones, the Internet (i.e., e-mail, etc.) and all other electronic means.
- Stealing, buying or otherwise obtaining information about an unadministered examination.
- Substituting for another person or permitting any other person to substitute for oneself to take an examination.
- Submitting another person's work as yours either in its original or altered form.
- Giving someone else your work to fulfill his/her assignment.
- Using the assignment of another class to fulfill an assignment for this class without authorized consent of the instructor.
- Plagiarizing.

Violations of proper ethical conduct will NOT be tolerated. A failing semester grade will be assigned to all involved parties (NO exceptions). Severe cases of academic dishonesty will be handled at the university level.

If you are aware of any academic dishonesty, please notify me either personally (your identity will remain confidential) or anonymously. **Cheating devalues everyone's grade and degree, including your own!**



TENTATIVE CLASS SCHEDULE³

<i>Week</i>	<i>Week of ...</i>	<i>Topic</i>	<i>Reading</i>	<i>Assignments Due⁴</i>
1	1/23	• Introduction to 4GL application development	Class notes	
2	1/30	• Anatomy of PL/SQL • Oracle Forms: Object navigator, windows, canvases, blocks, items, triggers, menus	Chap. 4, 5 and class notes	H1 (SQL)
3	2/6	• Oracle Forms: Multiple Forms • The <i>Science</i> of Presenting Information • Menu maps	Chap. 5, 6, 8, 10 and class notes	P1 (Forms)
4	2/13	• LOVs and OLE		
5	2/20	• Oracle Reports: Object navigator, data model, layout editor, formula columns • Tabular report	Chap. 7 and class notes	P2 (LOV)
6	2/27	• Oracle Reports: Master/detail report		
7	3/6	• Oracle Reports: Drill-down reports		P3 (Master-detail report)
	3/13	<i>SPRING BREAK – No class</i>		
8	3/20	• Oracle Reports: Control reports	Chap. 7	
9	3/27	MIDTERM EXAM	All of the above chapters and class notes	
10	4/3	• Oracle Reports: Control reports	Chap. 7	
11	4/10	• Oracle Graphics Builder	Class notes	P4 (Drill-down, roll-up reports)
12	4/17	• Integrating Forms, Reports and Graphics	Chap. 10	
13	4/24	• Prototyping	Class notes	P5 (Graphics)

³Topics and chapters may be dropped when time does not permit their inclusion. Other topics may be added.

⁴All assignments are due on Wednesday unless otherwise specified.



14	5/1	<i>Project – No class scheduled</i>		
15	5/8	<i>Project – No class scheduled</i> <i>Project Due – Friday, May 5, no later than 4:00 p.m.</i>		
16	5/15*	Final Exam	<i>(Comprehensive)</i>	Wednesday, 5:15-7:15

The University's final exam schedule may be viewed from

<http://www.csus.edu/schedule/fall2005spring2006/exam.stm>



Calendar for year 2006 (United States)

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Holidays and Observances

Jan 1 New Year's Day	May 29 Memorial Day	Nov 10 'Veterans Day' observed
Jan 2 'New Year's Day' observed	Jul 4 Independence Day	Nov 11 Veterans Day
Jan 16 Martin Luther King Day	Sep 4 Labor Day	Nov 23 Thanksgiving Day
Feb 14 Valentine's Day	Oct 9 Columbus Day	Dec 25 Christmas Day
Feb 20 Washington's Birthday	Oct 31 Halloween	

Calendar generated on www.timeanddate.com/calendar