Course Title: Database Applications	Course code: 731360
Course Level: 3	Course prerequisite: 761235
Lecture Time:	Credit hours: 3

Academic Staff Specifics

Name	Rank	Office Number and Location	Office Hours	E-mail Address
Dr. Murad Magableh	Assistant Professor	IT 322		mmagableh@philadelphia.edu.j

Course Module Description:

This module tends to give the student knowledge in database systems programming using Oracle. This includes the different types of SQL statement, PL/SQL blocks, Cursors, Stored and user-defined Procedures, stored and user-defined Functions, Packages. The module also focuses on the Graphical user interface programming tools within Oracle especially Oracle Developer, and Oracle Report Writer.

Course Module Objectives:

1. To review with students relational database main concepts
2. To understand the different types of SQL statements, DML and DDL
3. To study the different types of Oracle user-defined objects especially Functions, Procedures, Cursors, Triggers, and Packages
4. To study Oracle GUI development tools such as Oracle Developer 6i, and Oracle Report Writer
5. To help students utilize Oracle programming language in their final year projects

Course Module Components

Text book:
Title**: Programming Oracle**
Author(s): **Kevin Owens**
Publisher: **3d edition, The Prentice Hall, 2004.**

Support Materials:
In addition to the above, the students will be provided with handouts by the lecturer.

Teaching Methods:
Lectures, discussions, tutorials, problem solving, laboratory, assignments, home works.

Learning Outcomes:
Students completing this module should be able to:
1- Understand the theoretical concepts in relational database design and analysis
2- Write simple, intermediate, and complex SQL statements
3- Develop different types Oracle objects such as cursors, procedures, functions, packages
4- Be familiar with SQL enviromnet
5- Analyse, design, and implement an intermediate software system using Oracle GUI tools such Oracle Developer 6, and Report writer.
6- Choose or suggest an individual final year project.
7- Use appropriate computer-based design support tools.

Assessment Instruments

Assessment Instruments	Mark
First examination	**20%**
Second examination	**20%**
Final Exam (written unseen exam)	**40%**
Reports, Assignments, Quizzes, Home works	**20%**
Total	**100%**

* *Make-up exams will be offered for valid reasons only with consent of the Dean. Make-up exams may be different from regular exams in content and format.*

Documentation and Academic Honesty
Submit your home work covered with a sheet containing your name, number, course title and number, and type and number of the home work (e.g. tutorial, assignment, and project).

Any completed homework must be handed in to my office by 15:00 on the due date. After the deadline, "zero" will be awarded. You must keep a duplicate copy of your work because it may be needed while the original is being marked.

For the research report, you are required to write a report similar to a research paper. It should include:
- **Abstract**: It describes the main synopsis of your paper.
- **Introduction**: It provides background information necessary to understand the research and getting readers interested in your subject. The introduction is where you put your problem in context and is likely where the bulk of your sources will appear.
- **Methods (Algorithms and Implementation)**: Describe your methods here. Summarize the algorithms generally, highlight features relevant to your project, and refer readers to your references for further details.
- **Results and Discussion (Benchmarking and Analysis)**: This section is the most important part of your paper. It is here that you demonstrate the work you have accomplished on this project and explain its significance. The quality of your analysis will impact your final grade more than any other component on the paper. You should therefore plan to spend the bulk of your project time not just gathering data, but determining what it ultimately means and deciding how best to showcase these findings.
- **Conclusion**: The conclusion should give your reader the points to "take home" from your paper. It should state clearly what your results demonstrate about the problem you were

tackling in the paper. It should also generalize your findings, putting them into a useful context that can be built upon. All generalizations should be supported by your data, however; the discussion should prove these points, so that when the reader gets to the conclusion, the statements are logical and seem self-evident.

- **Bibliography:** Refer to any reference that you used in your assignment. Citations in the body of the paper should refer to a bibliography at the end of the paper.

☐ Protection by Copyright

1. Coursework, laboratory exercises, reports, and essays submitted for assessment must be your own work, unless in the case of group projects a joint effort is expected and is indicated as such.

2. Use of quotations or data from the work of others is entirely acceptable, and is often very valuable provided that the source of the quotation or data is given. Failure to provide a source or put quotation marks around material that is taken from elsewhere gives the appearance that the comments are ostensibly your own. When quoting word-for-word from the work of another person quotation marks or indenting (setting the quotation in from the margin) must be used and the source of the quoted material must be acknowledged.

3. Sources of quotations used should be listed in full in a bibliography at the end of your piece of work.

☐ Avoiding Plagiarism.

1. Unacknowledged direct copying from the work of another person, or the close paraphrasing of somebody else's work, is called plagiarism and is a serious offence, equated with cheating in examinations. This applies to copying both from other students' work and from published sources such as books, reports or journal articles.

2. Paraphrasing, when the original statement is still identifiable and has no acknowledgement, is plagiarism. A close paraphrase of another person's work must have an acknowledgement to the source. It is not acceptable for you to put together unacknowledged passages from the same or from different sources linking these together with a few words or sentences of your own and changing a few words from the original text: this is regarded as over-dependence on other sources, which is a form of plagiarism.

3. Direct quotations from an earlier piece of your own work, if not attributed, suggest that your work is original, when in fact it is not. The direct copying of one's own writings qualifies as plagiarism if the fact that the work has been or is to be presented elsewhere is not acknowledged.

4. Plagiarism is a serious offence and will always result in imposition of a penalty. In deciding upon the penalty the Department will take into account factors such as the year of study, the extent and proportion of the work that has been plagiarized, and the apparent intent of the student. The penalties that can be imposed range from a minimum of a zero mark for the work (without allowing resubmission) through caution to disciplinary measures (such as suspension or expulsion).

Course Academic Calendar:

Week	Topic
1	Overview of database concepts
2	SQL: basic SELECT statement
3	SQL: restricting and sorting data
4	SQL: single-row & multiple-row functions
5	Join

6	Subqueries
7	DML: insert, update, delete **First Exam**
8	DDL: creating and managing tables, including constraints, other database objects
9 10	PL/SQL: procedures, functions, packages, database triggers
11 12	Oracle forms **Second Exam**
13 14	Oracle forms
15	Oracle reports
16	Revision **Final Exam**

Expected workload:

On average students need to spend 2:30 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance Policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

Module References:

*Books: (*Available on webpage gradually*)*
Oracle University books in:
1. SQL
2. PL/SQL
3. Forms
4. Reports

Journals:

Websites:
http://www.oracle.com