



**KING SAUD UNIVERSITY**  
**COLLEGE OF BUSINESS ADMINISTRATION**

**COURSE REPORT**  
**(CR)**

A separate Course Report (CR) should be submitted for every course and for each section or campus location where the course is taught, even if the course is taught by the same person. Each CR is to be completed by the course instructor at the end of each course and given to the program coordinator

A combined, comprehensive CR should be prepared by the course coordinator and the separate location reports are to be attached.

## Course Report

For guidance on the completion of this template refer to the NCAA handbooks or the NCAA Accreditation System help buttons.

Institution	King Saud University	Date of Course Report	5/1 / 2016
College/ Department	College of Business Administration/ Economics		

### A. Course Identification and General Information

1. Course title	Mathematical Economics		Code #	( Econ 323)		Section #	28039	
2. Name of course instructor	Afaf Abaalkhail		Location	Al-Deraiah – Female Campus				
3. Year and semester to which this report applies.	1436/1437 (2015/2016) ,1 <sup>st</sup> semester							
4. Number of students starting the course?	37		Students completing the course?	36				
5. Course components (actual total contact hours and credits per semester):								
	Lecture	Tutorial	Laboratory	Practical	Assessment	Other:	Total	
Contact Hours	44	Non	Non	10	6 hours	6 hours - Group discussion; - Open book class exercises - Project presentation - Session; and revision	66	
Credit	3						3	

### B. - Course Delivery

1. Coverage of Planned Program			
Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations if there is a difference of more than 25% of the hours planned
Differential Calculus.	5	6	Since all the students were not present in the class on day-one, and entering the class slowly as they register late; there was a need to repeat the course description and explain the modes of assessment again

Matrices, determinants, and Systems of equations.	6	7	Since the cohort was a combination of several majors (i.e., economics and finance.) more hours were required to bring them to a common platform.
Multivariate Calculus, Implicit Functions, and Euler's Theorem.	3	4	the cohort was a combination of several majors
Constrained and Non-Constrained Optimization.	3	3	No variation
Convexity and Concavity.	3	3	No variation
Linear and Non-Linear Programming.	3	5	Upon practical assessment, the need for more hours was needed to fully explain the subject
Kuhn – Tucker's Theorem, Duality.	3	4	More examples were needed to meet the requirements of the subject
Difference Equations	6	6	No variation
Differential equations	6	6	No variation

## 2. Consequences of Non Coverage of Topics

For any topics where the topic was not taught or practically delivered, comment on how significant you believe the lack of coverage is for the course learning outcomes or for later courses in the program. Suggest possible compensating action.

Topics (if any) not Fully Covered	Effectuated Learning Outcomes	Possible Compensating Action
Linear and Non-Linear Programming.	None	Two extra lectures were added to cover this subject, even though were not found enough to fully cover the subject. Therefore, extra exercises were assigned.

## 3. Course learning outcome assessment.

	List course learning outcomes	List methods of assessment	Summary analysis of assessment results
1	Support the student's analytical abilities by using the scientific tools necessary for economic analysis	Test 1 till Test 6 And Final examination	-Students were given 6 tests. A test at the end of each chapter, each scored 10 marks. Best 3 scores were taken as final score of continuous assessment tests.
2	Understanding of mathematical analysis tools and its application in microeconomics such as: Differential Calculus, Matrices, determinants, and Systems of equations, Multivariate Calculus, Implicit Functions, and Euler's Theorem, Linear and Non-Linear Programming,	Test 1 – Test 6 and Final exam - Participation -Open book exercises in class.	This offered them to recognize the weakness they had in any topic early on. Also, to continuously review the subject.  -Regarding class exercises (an open book exercise), they had 4 exercises, each scored 5 marks which were more difficult than the continuous tests. It required more application of taught analytical tools in class.

	Difference Equations, Differential equations.		-The projects were credited 10 marks. The students were given an option to either a product or a service and to study the economic feasibility of their project. Their presentations were found outstanding and creative compared to previous years. Positive competition was noticed between the groups. A bonus marks was accredited to all projects.
3	<ul style="list-style-type: none"> <li>- A deeper understanding of fundamental mathematical economics theories.</li> <li>- Using advanced analytical tools.</li> <li>- Applying the earned knowledge on real-world cases.</li> <li>- developing the ability to use mathematical tools</li> </ul>	<ul style="list-style-type: none"> <li>- Involving students in evaluation</li> <li>- Open book Exercises.</li> <li>- Correcting students essays</li> <li>- Continuous assessment tests and final exam.</li> <li>-Projects</li> </ul>	<p>Statistics below reflect the collective scoring all through the semester (Continuous assessment tests, open book exercises in class and a project):</p> <p>22.9% scored A+ to A 22.9 % scored B+ to B 20% scored C+ to C 2.9% scored D+ to D 31 % scored F</p>
4	<ul style="list-style-type: none"> <li>- Training the student to constructively participate in raised topics and group exercises.</li> <li>-cooperation between students</li> <li>-facing the problems.</li> </ul>	<ul style="list-style-type: none"> <li>- Her ability to interact with the lecturer and with her colleagues.</li> <li>- Her ability to cooperate with her colleagues in solving problems.</li> <li>-analyzing the results of sudden exams</li> <li>- Her ability to turn in homework on time.</li> </ul>	<p>Score F did reduce after the final exam. It is probable due to students' performance improved with continuous assessment and application though the semester. Also, a percentage of students were not economic major or did not have the needed mathematical background.</p>
5	Skills in communication, information technology, and quantitative analysis	Using PC, the internet to search for the materials.	

Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.

Teaching strategies used during course were found effective which was reflected by in the students' grades/attendance. The Teaching Strategies used in the course :

- Lecture and facilitation for student learning (student-centered)
- Student engagement through the following activities:
  - Group exercises in class
  - Student participation in class
  - Projects presentations
  - Self- reading.
  - Homework

4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification. (Refer to planned teaching strategies in Course Specification and description of Domains of Learning Outcomes in the National Qualifications Framework)			
List Teaching Methods set out in Course Specification	Were these Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
<ul style="list-style-type: none"> <li>- Lectures</li> <li>- Exercises and applications, papers.</li> <li>- Mathematical programs.</li> </ul>		Yes	More hours needed than planned due difficulties faced by the students especially in mathematics.
<ul style="list-style-type: none"> <li>-encouraging discussion and dialogue.</li> <li>-doing research in a specialized subjects.</li> <li>-home works</li> </ul>		Yes	None
<ul style="list-style-type: none"> <li>- Interactive and positive discussion groups</li> <li>- Rewarding students on their contribution and involvement in the class</li> </ul>		Yes	Homogenous group working was noticed.
-sudden exams			
<ul style="list-style-type: none"> <li>• Projects presentations</li> <li>• Self- reading.</li> </ul>		Yes	The students excelled when presenting their projects. Bonus credit were added to their final score for such achievement.

**Note:** In order to analyze the assessment of student achievement for each course learning outcome, student performance results can be measured and assessed using a KPI, a rubric, or some grading system that aligns student work, exam scores, or other demonstration of successful learning.

## C. Results

### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Explanation of Distribution of Grades
A+	8	% 22.2	95 – 100 = A+
A	6	% 16.7	90 – 94 = A
B+	3	% 8.3	85 – 89 = B+
B	4	% 11.1	84 – 80 = B
C+	4	% 11.1	79 – 75 = C+
C	2	% 5.6	74 – 70 = C
D+	2	% 5.6	69 – 65 = D+
D	1	% 2.8	64 – 60 = D
F	6	% 16.7	59 or Below = F
Denied Entry	0	% 0	
In Progress	0	% 0	
Incomplete	0	% 0	
Pass	30	% 83.3	Have scored above 60% out of 100
Fail	6	% 16.7	
Withdrawn	1	% 2.7	

### 2. Analyze special factors (if any) affecting the results

Students who scored A-A+ (% 38.9). The percentage of this group improved after the final exam because were found to be active participant in class and utilizing office hours to discuss questions they had. On the contrary students scoring below C (% 8.4) showed poor participation and dependence on peers. Students scoring F (% 16.7) were rarely attending the practical and exercise sessions for they were not mandatory. Yet, this group percentage did minimize at the end due to continuous assessment that help grasp the topic and recognize areas to improve.

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3. Variations from planned student assessment processes (if any) (see Course Specifications).

a. Variations (if any) from planned assessment schedule (see Course Specification)

Variation	Reason
No variation, for at the end of each chapter an assessment test was given without a fixed date which allowed the instructor and students flexibility.	

b. Variations (if any) from planned assessment processes in Domains of Learning (see Course Specification)	
Variation	Reason
The last 2 group assessment test were made more challenging than previous tests	Students scored high grades in earlier test, reflecting better grasp of the topic than expected.

4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator).	
Method(s) of Verification	Conclusion
Peer instructor, who have taught the same course	Cross-check resulted in same grades.
Students are also allowed to verify their grades and discuss with instructor.	

#### D. Resources and Facilities

<p>1. Difficulties in access to resources or facilities (if any)</p> <p>Resources were almost always available which is commended to the department. Yet, occasionally there was difficulty running the Smart Board.</p> <p>The classes were conducted in the afternoon hours when it was previously used by other courses and left unarranged and messy.</p>	<p>2. Consequences of any difficulties experienced for student learning in the course.</p> <p>It was time consuming to rearrange the class every time.</p>
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#### E. Administrative Issues

<p>1 Organizational or administrative difficulties encountered (if any)</p> <p>Not encountered up to date</p>	<p>2. Consequences of any difficulties experienced for student learning in the course.</p> <p>None</p>
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## F Course Evaluation

1 Student evaluation of the course (Attach survey results report)
<p>a. List the most important recommendations for improvement and strengths</p> <p>1- More hours deducted to exercise session are needed for they were found beneficial</p> <p>2- The continuous assessment after every chapter kept the students constantly revised with an acceptable effort.</p>
<p>b. Response of instructor or course team to this evaluation</p> <p>It is was difficult to increase the hours assigned for exercises because it would jeopardize hours of lectures. But, a review to this aspect will be attempted next semester.</p>
<p>2. Other Evaluation (e.g. by head of department, peer observations, accreditation review, other stakeholders)</p> <p>Not to this date.</p>
<p>a. List the most important recommendations for improvement and strengths</p> <p>More focus is needed to strengthen the students in mathematics, in specific, algebra.</p>
<p>b. Response of instructor or course team to this evaluation</p> <p>Students recommendation will be thoughtfully reviewed and implanted with amenable resources. In total it was acceptable</p>

## G. Planning for Improvement

1. Progress on actions proposed for improving the course in previous course reports (if any).			
Actions recommended from the most recent course report(s)	Actions Taken	Results	Analysis
a. Implement group exercises and tests	Yes	Fruitful in terms of building a cohesive group work and co-dependence between students	
b. Utilizing Smart board	Yes	Time saving	
c. Deducting more hours for practical session and exercises	On going	Very beneficial to the students but might affect the time of main lecture.	

2. List what actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).  
Discussed in prior segment.

3. Action Plan for Improvement for Next Semester/Year

Actions Recommended	Intended Action Points and Process	Start Date	Completion Date	Person Responsible
a. Take home exam	To be tried again next year.	During revision period.	Before final exam	Instructor
b. Review of practical and exercise hours	Ongoing throughout the semester	First week	Revision week	Instructor

Name of Course Instructor: Afaf A Abaalkhail

Signature:  Date Report Completed: 5/1/2016

Program Coordinator: \_\_\_\_\_

Signature: Date Received: \_\_\_\_\_