

ATTACHMENT 5.

Kingdom of Saudi Arabia
**The National Commission for Academic Accreditation &
Assessment**

**T6. Course Specifications
(CS)**

Course Specifications

Institution	King Khalid University	Date	2016
College/Department	Department of Mathematics, College of Science		

A. Course Identification and General Information

1. Course title and code: Calculus 1, Math 001			
2. Credit hours Three hours			
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs) Computer science students			
4. Name of faculty member responsible for the course Ahmed Elwan (coordinator) , Abdel Azem Bacher			
5. Level/year at which this course is offered First semester, First year			
6. Pre-requisites for this course (if any) None			
7. Co-requisites for this course (if any) None			
8. Location if not on main campus ALMAHALA			
9. Mode of Instruction (mark all that apply)			
a. traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="100"/>
b. blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage?	<input type="text"/>
d. correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. other	<input type="checkbox"/>	What percentage?	<input type="text"/>
Comments:			



B Objectives

<p>1. What is the main purpose for this course? Our main focus in this course is to</p> <ol style="list-style-type: none"> 1) Highlight the importance of mathematics in overall curriculum and variety of discipline. 2) Build a strong mathematical background for future study in computer science. 3) Help students to develop their mathematical skills by using the proper logical thinking. 4) Train students to know methods and solution strategies. 5) Give a basic background in analysis. 6) Study calculus and its applications.
<p>2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)</p> <ol style="list-style-type: none"> 1) <i>Encouraging students to read by themself from different sources.</i> 2) Assigning students to do a lot of homework 3) Using E-learning.

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Real Numbers	1	3

Equations and Inequalities	1	3
Properties of real functions	3	9
Limits	2	6
Continuity	1	3
The concept of derivative	2	6
Some basic theorems such as the mean value theorem	1	3
Applications	2	6
General Review	1	3

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	42	-	-	-	-	42
Credit	3	-	-	-	-	3

3. Additional private study/learning hours expected for students per week.

5 hours per week to review and do homework and for self-study.

1 hour per week tutorial lecture.

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	This course is designed to develop students	Lectures	Tests
1.2	logical thinking and to enhance their	Practical sessions	Quizzes and Homework

	knowledge about calculus and its application.		
2.0	Cognitive Skills		
2.1	<i>The ability to calculate the limit of the real functions, apply the rules for calculations and understand what function means and their behavior</i>	Lectures, Homework,	Grading Homework, Quizzes, Asking questions during the lectures.
2.2	<i>The ability to analyze things & Enhancing logical thinking</i>	Self-study, Discussions and Asking questions during the lectures	two mid terms and a Final test.
3.0	Interpersonal Skills & Responsibility		
3.1	<i>Learning to discuss scientific issues through asking questions and answering them</i>	<i>Discussion between the teacher and students during lectures</i>	<i>Participation during lectures</i>
3.2	Self-reliance on solving problems	<i>Collaborative work</i>	<i>Through the tasks to be solved Collaboratively</i>
4.0	Communication, Information Technology, Numerical		
4.1	<i>The ability to do calculations correctly</i>	Homework	Discussion
4.2	The ability to use E-learning tools in education and to communicate with the teacher	Using blackboard to deliver assignments and tests	Quizzes
5.0	Psychomotor		
5.1	<i>None</i>	<i>None</i>	<i>None</i>
5.2			

5. Map course LOs with the program LOs. (Place course LO #s in the left column and program LO #s across the top.)

	Program Learning Outcomes (Use Program LO Code #s provided in the Program Specifications)
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Course LOs #								
	1.1	1.2		2.1		3.2		4.1
1.1								
2.1								

6. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Homework	Homework or Quizzes	10
2	Quizzes		
3	First Mid Term	After the 5th week	20
4	Second Mid Term	After the 11th week	20
5	Final	After the 14th week	50
6			
7			
8			

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- 1) At least ten office hours a week
- 2) At least 3 hours of grading a week
- 3) Discussion board forum in Blackboard
- 4) E-mail

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E Learning Resources

1. List Required Textbooks Calculus - Introduction to calculus - Part I - Mohammed Adel Sudan, Salman
2. List Essential References Materials (Journals, Reports, etc.) Calculus fifth edition by Earl William Swokowski
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
4. List Electronic Materials, Web Sites, Facebook, Twitter, etc. http://www.mhhe.com/math/calc/smithminton/
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. King Khalid University site. Blackboard.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) Lecture halls can accommodate up to 60 students equipped with whiteboards, Tables and Chairs

2. Computing resources (AV, data show, Smart Board, software, etc.) 1. Computer and printer for the lecturer E-learning Centre for students
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) none

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching Questionnaire is given to students about their instructors
2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department none
3 Processes for Improvement of Teaching Workshops organized by E-Learning Deanship at the university Continuous search about new reference

4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

Standardized tests for all sections graded by a group of our faculty members.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

Our department review the course characterization and recommended book every two years.

Name of Instructor: Abdelazim Bashir Ibrahim

Signature: _____ Date Report Completed: 21/11/2016

Name of Course Instructor Abdelazim Bashir Ibrahim

Program Coordinator: Ahmed Elwan

Signature: _____ Date Received: _____