



# Course Specifications

Muharram 1437 H

Institution :	College of Education for Girls at Al-Majmaah
Academic Department:	Mathematic
Programmer:	Bachelor of Mathematic.
Course:	Calculus 1
Course Coordinator:	Nouf Althumairi
Programme Coordinator:	.Nouf Althumairi .
Course Specification Approved Date:	28/ 3 / 1435 H



## A. Course Identification and General Information

1 - Course title:	Calculus I	Course Code:	MATH111
2. Credit hours:	2 hours ( 1 lecture +2 exercises )		
3 - Program(s) in which the course is offered:	Bachelor of Mathematic & Biology		
4 – Course Language:	Arabic		
5 - Name of faculty member responsible for the course:			
6 - Level/year at which this course is offered:	Level 1		
7 - Pre-requisites for this course (if any):	<ul style="list-style-type: none"> <li>N/A</li> </ul>		
8 - Co-requisites for this course (if any):	<ul style="list-style-type: none"> <li>N/A</li> </ul>		
9 - Location if not on main campus:	(College of Education for Girls)		
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	70 %
B - Blended (traditional and online)	<input type="checkbox"/>	What percentage?	..... %
D - e-learning	<input checked="" type="checkbox"/>	What percentage?	30 %
E - Correspondence	<input type="checkbox"/>	What percentage?	..... %
F - Other	<input type="checkbox"/>	What percentage?	..... %
Comments:	.....		

## B. Objectives

What is the main purpose for this course?

Development of basic mathematical skills.  
 The ability to think & analysis mathematically to solve problems.  
 Studying the relationship between Differentiation and Continuity.  
 Identify the differentiation rules and its applications.  
 Studying the properties of functions and how to draw the curve of the function.

Briefly describe any plans for developing and improving the course that are being implemented:

Browse the Internet  
 Use the project  
 Research papers





discussion and solving exercises with students

## C. Course Description

### 1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
Real numbers and real line – Inequalities	1	3
Functions	1	3
Limits	3	9
Continuity	3	9
Differentiation	3	9
Differentiation Laws and its applications	4	12
Total	15	45

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

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	15	first semester	.....	30	.....	45
Credit	15	first	.....	15	.....	30

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

2





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

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
1.1	Define the function and its types.	Lectures	Participation within the classroom
1.2	Understanding the limits and their relation with Continuity	Group discussion	exams final
١,٣	Understanding the definition of the limits and their relation with Differentiation	small Group discussion	Students will be evaluated on their ability to devise, organize and present complete solutions to problems
١,٤	The ability to understand the derivation and its rules.	Help and train the students on how to prepare scientific research	research papers
١,٥	Find the derivative of trigonometric function and inverse trigonometric functions	.....	.....
١,٦	Make all the concepts that have been studied in drawing curves and solving problems.	.....	.....
<b>2.0</b>	<b>Cognitive Skills</b>		
2.1	Development of basic mathematical skills that are necessary for all branches of mathematics	Making lectures accessible by giving the students a chance to share what they know.	Tow final exams
2.2	To improve the students logical thinking and mathematical skills to solve mathematical problems.	Assignments	Assignments



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
٢,٣	Recognize the students to the relation between the limits and the derivation.	.....	Final exam
٢,٤	Identify the differentiation rules and its applications.	.....	.....
	To improve abilities Studying on how to draw the functions by taking advantage of all the information that has been studied		
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
<b>3.1</b>	Ability to communicate more effectively with other students, solving problems in group and they have to respect the other opinions	Encourage the students to search from different sources and for group discussions	Prepare the sheet of papers for studying
<b>3.2</b>	Motivate the students to ask questions and discuss the information in the class, and to give response to the teacher's questions	students Encurge the to do their assignments they can work together, or searching from the library for the development of thinking skills and self-study	Doing Assignments in group and exchange of information
٣,٣	The ability to exchange information and verify the validity of the information	Introduce courses in computer application and programming which will prepare students to use available software and develop simple programs.	Oral discussion and ability for self-study
٣,٤	The ability to self-reliance during the learning		
٣,٥	.....	.....	.....





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
٣,٦	.....	.....	.....
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
<b>4.1</b>	Make the students use the electronic mail and Network skills to communicate with the others and to build their searching.	Teamwork - Individual assignments	Assignments
<b>4.2</b>	.....	.....	.....
٤,٣	.....	.....	.....
٤,٤	.....	.....	.....
٤,٥	.....	.....	.....
٤,٦	.....	.....	.....
<b>5.0</b>	<b>Psychomotor</b>		
<b>5.1</b>	N/A	N/A	N/A
<b>5.2</b>	.....	.....	.....
٥,٣	.....	.....	.....
٥,٤	.....	.....	.....
٥,٥	.....	.....	.....
٥,٦	.....	.....	.....

### 5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	Midterm-1 Exam	7	%15
2	Midterm-2 Exam	11	%15
3	Assignments	Weekly	%5
4	Attendance and participation	weekly	%5
5	Final Exam	16	%60
6	<b>Total</b>	.....	%100
7	.....	.....	.....
8	.....	.....	.....





## D. Student Academic Counseling and Support

Office hours, Communication/interact via e-mails with students.

## E. Learning Resources

### 1. List Required Textbooks :

- principles of calculus (Part I), d. Saleh al-Sanusi, d. Known Samhan, D.kamal Pacific ..oakhron, presses Star Knowledge 0.1422.

### 2. List Essential References Materials :

- calculus with a practical application using a program (Mathematica), Huda concrete, Dar munitions, 1426/2005.
- .....

### 3. List Recommended Textbooks and Reference Material :

- Calculus with analytic Geometry, SWOKOWSKI, PWS PUBLISHING COMPANY, 1994

### 4. List Electronic Materials :

- Any sites in the internet linked to curriculum .....
- .....

### 5. Other learning material :

- N/A.....
- .....
- .....

## F. Facilities Required

### 1. Accommodation

- Lecture room to accommodate the students
- Blackboard





## 2. Computing resources

- Data show, computer and Internet connection.
- .....
- .....

## 3. Other resources

- N/A
- .....

## G. Course Evaluation and Improvement Processes

### 1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- Course evaluation
- Students experiences

### 2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor:

- Collecting all students results obtained from the different exams and exercises to take it into consideration
- Annual reports which prepared by the department.

### 3 Processes for Improvement of Teaching:

- Encourage students to debate, and to solve the exercises in a group.
- Encourage for researching
- .....

### 4. Processes for Verifying Standards of Student Achievement

- Committee and quality assurance formed by the scientific department Council will review and analysis a sample of student exams papers and their answers.
- Correct tests and homework papers
- .....

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

- The curriculum committee will provide the department council with the suggested modification of the program or courses according to the University regulation.
- Course reports are compiled.





**Course's Coordinator**

**Name :** Nouf Althumairi  
**Signature :** .....  
**Date :** 24 / 12 / 1437 H

**Department Head**

**Name :** Nouf Althumairi  
**Signature :** .....  
**Date :** 24./ 8 / 1437 H

**Course Specification Approved**  
**Department Official Meeting No ( ..... ) Date 28 / 3 / 1435 H**

