

Course Specification Template

1. General information about Instructor:

Name	Kefaya Ayyash			Class Time & Office Hours				
Phone	Internal	1658	Day	SUN	MON	TUE	WED	THU
	External							
Mobile	0599297499		Class Time		9:30-11		9:30-11	
Instructor's E-mail	k.ayash@ptuk.edu.ps		Class Room		F007		F007	
	kefayaayash@yahoo.com		Office Hours	12-1	11-12	12-1	11-12	12-1

2. General information about the Course

No	Requirements						
1	Course Title	Calculus 1					
2	Course code & Number	15010101					
3	Credit hours	Theo. (CH): 3			Practical (CH):---		
4	Faculty	Science and Arts					
5	Department / Division that offers the course:	Applied Mathematics					
6	Course type	Compulsory			Elective		
		Uni. <input type="checkbox"/>	Fac. <input checked="" type="checkbox"/>	Dep. <input type="checkbox"/>	Uni. <input type="checkbox"/>	Fac. <input type="checkbox"/>	Dep. <input type="checkbox"/>
7	Level and Semester	All					
8	Prerequisite(s) – If any	---					
9	Co-requisite(s) – if any	----					
10	Program/programs for it/them the course is offered	----					
11	Instruction Medium:	English <input checked="" type="checkbox"/>			Arabic <input type="checkbox"/>		

3. Course description:

Topics include limits , continuity , differentiation , optimization , approximation and integration . Applications are drawn from engineering , physics , biology, economics , and design .

4. General Course Objectives

On successful completion of this course the student will be able to achieve the following objectives:o

1. Learn about limits and their central role in calculus .

2. Learn about derivatives and their relationship to instantaneous rates of change
3. Understand many practical applications of derivatives .
4. Gain experience in the use of approximation in studying mathematical problems .
5. Learn about integrals and their relationship to derivatives and its application in finding areas .

5. Intended Learning Outcomes/ILO's (please specify the learning outcomes of the course as outlined below):

- A) Knowledge and understanding** : defining a limit , derivative , rate of change , , continuous functions , integral.
- B) Intellectual/Cognitive skills** : Dealing with functions and finding their domains , limits , derivatives , and integrals and trying to graph them.
- C) Subject specialization and practical skills** : finding limits and derivatives , finding definite and indefinite integrals .
- D) General and transferable skills** : Logical thinking and problem solving skills .

6. Topics covered and Calendar:

A. Theoretical parts (Please state the titles of the subjects you intend to cover each week)

Number	Topics	Number of hours
1.	Sec 1.1,1.2.	3
2.	Sec 1.3, 1.5	3
3.	Sec 1.6	3
4.	Sec 2.1, 2.2	3
5.	Sec 2.3, 2.4	3
6.	Sec 2.5, 2.6 (First exam)	3
7.	Sec 3.1, 3.2 , 3.3	3
8.	Sec 3.4, 3.5 , 3.6	3
9.	Sec 3.7, 3.8	3
10.	Sec 4.1, 4.2	3
11.	Sec 4.3, 4.4	3
12.	Sec 4.5, 4.6 (Second exam)	3
13.	Sec 4.8,5.2	3
14.	Sec 5.3, 5.4	3
15.	Sec 5.5, 5.6	3
16.	Final Exam	

7. Student assessment methods based on ILO,s

No	Assessment method	Week	Mark	Percentage to overall mark
1.	First Exam	6	30	30%
2.	Second Exam	12	30	30%
3.	Mid-term Exam (if any)	-	-	-
4.	Coursework	-	-	-
5.	Final Exam	16	40	40%

8. References and other resources

A. Recommended Textbook(s): two maximum 1. Thomas' calculus , 11 th edition 2. Thomas' calculus : Early Transcendentals
B. Other references Thomas' calculus : Multivariable (12 th edition)
C. Electronic resources, Websites related to the course 1. http://ietc.ptuk.edu.ps/Courses.php?ID=Nzc= 2. http://zr9558.files.wordpress.com/2013/10/thomas_-calculus.pdf

Name & signature of Head of department/ program leader

Name: signature: Date:

Name & signature of Quality rep. in your faculty

Name: signature: Date:

Course Tutor's name and signature

Name: signature: Date: