COURSE PLAN: CALCULUS (1)

Week	Articles	Homework
1st 16\1-20\1	**CHAPTER 0: Preliminaries** **0.1** The Real Number System. **Examples:** 1 **Problem set:** 1, 11, 13, 15, 19, 25, 33, 37	**CHAPTER 0: Preliminaries** **0.1** The Real Number System. **Problem set:** 3, 7, 9, 21, 27, 29, 31, 39.
2nd 23\1-27\1	**0.2** Inequalities and Absolute Values. **Examples:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 13. **Problem set:** 59 **0.3** The Rectangular Coordinate System, The Distance Formula, The Equation of a Circle and The Equation of line. **Examples:** 1, 2, 3, 4, 5, 6 and 7.	**0.2** Inequalities and Absolute Values. **Problem set:** 1, 3, 9, 13, 15, 21, 25, 27, 35, 43, 45, 60. **0.3** The Rectangular Coordinate System, The Distance Formula, The Equation of a Circle and The Equation of line. **Problem set:** 9, 11, 13, 15, 17, 18, 25, 29, 31, 33, 35, 39(a, d), 45.
3rd 30\1-1\2 الأربعاء والخميس إجازة	**0.4** Graphs of Equations. **Examples:** 1, 2, 3, 4.	**0.4** Graphs of Equations. **Problem set:** 1, 3, 9
4th 6\2-10\2	**0.5** Function and Their Graphs. **Examples:** 1, 2, 4, 5 **0.6** Operations on Functions. **Examples:** 1, 2, 3, 4	**0.5** Function and Their Graphs. **Problem set:** 5, 9, 11, 13, 15, 17, 21, 23 **0.6** Operations on Functions. **Problem set:** 1, 3, 5, 9, 11, 13, 15, 17
5th 13\2-17\2	**0.7** The Trigonometric Functions. **Examples:** 2, 5, 6 **CHAPTER 1: Limits** **1.1** Introduction to limits. **Examples:** 1,2,3,5	**0.7** The Trigonometric Functions. **Problem set:** 9, 11, 27, 28 **CHAPTER 1: Limits** **1.1** Introduction to limits. **Problem set:** 1,3,7,8,11, 43(a,b)
6th 20\2-22\2 الأربعاء والخميس إجازة	**1.3** Limit Theorems. **Examples:** 1, 2, 3, 4, 5, 6, 7, 8 and 9.	**1.3** Limit Theorems. **Problem set:** 1, 3, 5, 7, 9, 11, 13, 15, 19, 23, 25, 27 and 29.
7th 27\2-3\3	**1.5** Limits at Infinity; Infinite Limits. **Examples:** 1,2,3,4, 5,6, and 7. **1.6** Continuity of Functions. **Examples:** 1, 2, 3, 4, 5, 6, 7	**1.5** Limits at Infinity; Infinite Limits. **Problem set:** 1,3,5,7,11,17,19,27,29, 31. **1.6** Continuity of Functions. **Problem set:** 1, 9, 11, 13, 18, 32
8th 6\3-10\3	**CHPTER 2: The Derivative** **2.1** Two problems with one theme **Examples:** 1, 2, 3, 4, 5, 6 **First periodic exam (20 marks)**	**CHPTER 2: The Derivative** **2.1** Two problems with one theme **Problem set:** 9, 12, 13, 16
9th 13\3-17\3	اجازة منتصف الفصل	

10th 20\3-24\3	**2.2 The Derivative.** **Examples**: 1, 2, 3, 4, 5, 6 **2.3 Rules for Finding Derivative.** **Note: We do not have to prove theorems C,** D, E, F, G and H. **Examples**: 1, 2, 3, 4, 5, 6	**2.2 The Derivative.** **Problem set**: 1, 3, 8, 14, 21, 29, 33 **2.3 Rules for Finding Derivative.** **Note: We do not have to prove theorems C,** D, E, F, G and H. **Problem set**: 1, 5, 9, 11, 15, 27, 39
11th 27\3-31\3	**2.4 Derivatives of Trigonometric Functions.** **Examples**: 1, 2, 3, 4, 5, 6, 7, 8 **2.5 The Chain Rule.** **Examples**: 1, 2, 3, 4, 5, 6, 7, 9, 10	**2.4 Derivatives of Trigonometric Functions.** **Problem set**: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19 **2.5 The Chain Rule.** **Problem set**: 1, 5, 7, 9, 11, 13, 15, 17, 21, 23, 33, 39
12th 3\4-7\4	**2.6 Higher-Order Derivative.** **Examples**: 1, 2, 3, 4 **2.7 Implicit Differentiations.** **Examples**: 1, 2, 3, 4	**2.6 Higher-Order Derivative.** **Problem set**: 3, 6, 8, 15, 16 **2.7 Implicit Differentiations.** **Problem set**: 9, 11, 13, 16, 29, 26
13th 10\4-14\4	**2.8 Related Rates.** **Examples**: 1, 2, 3 **Second periodic exam (20 marks)**	**2.8 Related Rates.** **Problem set**: 1, 13.
14th 17\4-21\4	**CHAPTER 3. Application of the Derivative** **3.1 Maxima and Minima.** **Examples**: 1, 2, 3, 4, 5 **3.2 Monotonicity and Concavity.** **Examples**: 1, 2, 3, 4, 7	**CHAPTER 3. Application of the Derivative** **3.1 Maxima and Minima.** **Problem set**: 5, 8, 9, 11, 16, 17, 27 **3.2 Monotonicity and Concavity.** **Problem set**: 1, 2, 3, 4, 8, 9, 11, 13, 14
15th -16th 25\4-5\5	إجازة عيد الفطر	
17th 8\5-12\5	**3.3 Local Extrema and Extrema on Open Interval,** **Examples**: 1, 2, 3, 4, 5, 6 **3.5 Graphing Functions Using Calculus.** **Examples**: 1, 2	**3.3 Local Extrema and Extrema on Open Interval,** **Problem set**: 1, 3, 6, 8, 11, 13, 17, 22, 24, 31 **3.5 Graphing Functions Using Calculus.** **Problem set**: 1, 3, 5, 9
18th 15\5-19\5	**3.8 Antiderivatives** **Examples**: 1, 2, 3, 4, 5, 6 **CHAPTER 4. The Definite Integral.** **4.4 The Second Fundamental Theorem of Calculus.** **Examples**: 1, 2, 3, 4, 5, 7, 8, 9, 10, 12	**3.8 Antiderivatives** **Problem set**: 5, 11, 15, 25, 29, 30, 33, 35 **CHAPTER 4. The Definite Integral** **4.4 The Second Fundamental Theorem of Calculus.** **Problem set**: 3, 5, 9, 11, 17, 21

19th 22\5-24\5	مراجعة
20th 29\5-2\6	اختبارات المتطلبات العامة
21th-22th 5\6-16\6	**Final Exam (50 marks)**

توزيع الدرجات

الدرجة	المهام
20	دوري ١
20	دوري ٢
5	واجبات
5	كويز ١ و كويز ٢
50	نهائي
100	المجموع