

**SYLLABUS FALL- 2015**

**NEAR EAST UNIVERSITY**

**FACULTY OF ARTS and SCIENCES**

***DEPARTMENT OF MATHEMATICS***

**M 109 Analysis I (4,2,0)**

**Aim of the Corse:The development of calculus in the 17th Century represents one of the greatest intellectual accomplishments in human history. Today, calculus provides students with necessary foundation, understanding and skills that are needed to be successful in college courses such as physics, chemistry, engineering and business (economics and marketing). The objective of this course is to introduce the fundamental ideas of the differential and integral calculus of functions of one variable.**

**Schedule : 09:00-10:30 Monday, 09:00-10:30 Wednesday, 12:30-14:00 Thursday**

**Prerequist :-**

**Name Of Lecturer :Assoc.Prof.Dr. Evren Hınçal**

**E- mail address :evrenhincal@yahoo.co.uk**

**Office Phone : (0392) 223 64 64 ext: 502**

**Office Hours : Tuesday:14:00-15.30**

**Course Book :A Complete Course, Calculus, 7th ed., by Robert A. Adams. Addison-Wesley Publishing Co.**

**Source Book (s) :1. Calculus Third Edition Smith-Minton, McGraw Hill**

 **2. Calculus 8th Edition Howard Anton, Irl Bivens, Stephens Davis, Wiley**

**Assessment Methods**

**Assessment Method Grade** $(\%)$ **Date Week**

**Midterm 1** 25**%**

**Midterm 2** 20**%**

**Homework** 10% (if midterms average is$\geq $70 %)

**Final** 55**%**

**Course Contents:**

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| **Weeks** | **Chapters/ Sections** | **Topics** |
| **1****22.09.2014** | P1-P3 | Preliminaries |
| **2****29.09.2014** | P4-P7 | Preliminaries |
| **3****06.10.2014** | 1.1-1.3 | **Limits and Continuity** |
| **4****13.10.2014** | 1.4-1.5, 2.1 | **Limits and Continuity****Differentiation** |
| **5****20.10.2014** | 2.2-2.4 | **Differentiation** |
| **6****27.10.2014** | 2.5-2.7 | **Differentiation** |
| **7****03.11.2014** | 2.8-2.10 | **Differentiation** |
| **8****10.11.2014** | 3.1-3.4 | **Transcendental Functions** |
| **9****17.11.2014** |  | **MIDTERM EXAM WEEK** |
| **10****24.11.2014** | 3.5-3.6 | **Transcendental Functions** |
| **11****01.12.2014** | 4.1 | **Applications of Differentiation** |
| **12****08.12.2014** | 4.2-4.4 | **Applications of Differentiation** |
| **13****15.12.2014** | 4.5, 4.7-4.9 | **Applications of Differentiation** |
| **14****22.12.2014** | 5.1-5.3,5.4,5.5 | **Integration** |
| **15****29.12.2014** | 5.6,5.7,6.1,6.2 | **Integration** |
| **16****5.01.2015** |  | **FINAL EXAM WEEK** |