

Module title: CALCULUS 2

Module Code:

Module Credit: 3

Term: Second Term 1397-98

Lecturer: Mojtaba Bakherad
(Mojtaba.bakherad@yahoo.com)

Lecturing time: Sat. (9:30-11) and Mon. (9:30)

Assessments: 40% mid-term 1
exam
60% final exam

Class attendance: **REGULAR ATTENDING IS IMPORTANT
AND EACH SESSION YOUR ATTENDANCE WILL BE
CHECKED**

References: CALCULUS
JAMES STEWART
McMASTER UNIVERSITY

Module Subjects:

1st. week: Vector Functions and Space Curves

2nd. week: Derivatives and Integrals of Vector Functions

3rd. week: Arc Length and Curvature

4rd week: Vector Fields

5th. week: Functions of Several Variables

6th. week: Limits and Continuity

7th. week: Partial Derivatives

8th. week: Tangent Planes and Linear Approximations

9th. week: Directional Derivatives and the Gradient Vector

10th. Week: Maximum and Minimum Values

11th. week: Double Integrals over Rectangles

12th. week: Iterated Integrals

13th. week: Double Integrals in Polar Coordinates.

14th. week: Applications of Double Integrals

15th. week: Triple Integrals in Cylindrical Coordinates

16th. week: Triple Integrals in Spherical Coordinates