



Bahawalnagar Campus, Bahawalnagar, Pakistan Ph: +92 - 63 - 2277298, Email:qec@iub.edu.pk

Tentative Course Plan

DEPARTMENT OF COMPUTER SCIENCE

Class: BSCS (Evening)

Semester-2nd

Instructor	Shabana Kousar	Email: kousar9800@gmail.com	
Course Title	Multivariable Calculus	Program	BSCS
Course Code	01203	Credit Hours	03
Lecture	Monday & Tuesday(05:30-07:00 pm).		
<u>Course Objective:</u> This course provides foundation and basic ground for Calculus and Analytical Geometry background.			
<u>Course Outcomes:</u> Students who successfully complete the course unit and the assignments will be able: <ul style="list-style-type: none"> • Understand Calculus & Analytical Geometry, its connections and significance in other areas of computer science. • Expand many of the basic concepts to challenging upper-level courses. 			
<u>Methods of Teaching</u> <ul style="list-style-type: none"> • Assigned readings • Group activities & Discussion • Audiovisual aids lectures • Web-assisted instruction • Student-Directed Teaching 			
<u>Reference Books</u>	1. Calculus and Analytical Geometry 6 th edition 1994 by Swokowski, Olinick and Pence. 2. Calculus 7 th edition 2002 by Howard Anton. 3. Calculus and Analytical Geometry 10 th edition by Thomas Finny. 4. Calculus by William E. Boyce Richard C. Dprima.		
<u>Grading</u>	Mid- Exam (30%) Final Exam (50%) Problem Session/Assignments (20%) {Planned Quiz=3+Surprize Quiz=2, Attendance=5; Class Participation=5, Presentation=5}		
<u>Problem Session</u>	As feasible		

SEQUENCE OF TOPICS TO BE COVERED

Lecture Date	Lecture #	Topics (outline of main topics and sub topics)
23/10/2019	1	Introduction of Multivariable Calculus
	2	Functions of several variables
	3	Partial Differentiation
	4	Higher order Partial Derivative
	5	Practice Exercise.
	6	Basics of Integration
	7	Multiple integration
	8	Line integral
	9	Practice Exercise

	10	QUIZ
	11	Surface integral
	12	Presentations.
	13	Green's Theorem
	14	Exercise.
	15	Stoke's Theorem
	16	Discussion

Mid Term Exams

	17	Taylor and Maclaurin Expansions and their Convergence.
	18	Integral as Anti-derivative.
	19	Indefinite Integration of Simple Functions.
	20	QUIZ
	21	Practice Exercise
	22	Even & Odd Functions
	23	Half-Range expansions
	24	Exercise.
	25	Fourier Transformation.
	26	Exercise Question.
	27	Laplace Transformation.
	28	Exercise Question.
	29	Z-Transformation.
	30	Exercise Question.
	31	Presentations.
	32	Presentations.

Final Term Exams

Student Evaluation criteria:

Attendance	5%
Workshop / Assignments/Case study	5%
Surprise Test/Sudden Test , Quizzes	5%
Class Participation	5%
Mid Term Paper	30%
Final Term paper	50%
Total	100%

Student Responsibilities:

Students must attend class. Failure to attend class may result in failure in the course. Students must also arrive on time and remain in class for the entire period. Cellular Phones and Beeper must be Turned off (Proper classroom decorum [behavior] adopts, Course outlines and calendars explain requirements and assignments, students are responsible for knowing what they say. Students are also responsible for doing all assigned work on time. Excessive absences (more than 03) will result in "F Grade". Students may prepare Sketchbook for taking notes and for references.

Instructor/Tutor

Approved by:

Dean/ Chairman/ HOD/ Subject Specialist/ Program Coordinator