Syrian Arab Republic		الجمهورية العربية السورية
Ministry of Higher Education	**SVU** الجامعــة الافتراضيــة السوريــة SYRIAN VIRTUAL UNIVERSITY	وزارة التعليم العالـــي
Syrian Virtual University		الجامعة الافتراضية السورية

Course Description: Mathematical Analysis1

1- Basic Information:

Course Name	**Mathematical Analysis**
Course ID	**MA1**
Contact Hours (Registered Sessions)	**18**
Contact Hours (Synchronized Sessions)	**18**
Mid Term Exam	**-**
Exam	**75 min**
Registered Sessions Work Load	**40**
Synchronized Session Work Load	**40**
Credit Hours	**3**

2- Pre-Requisites:

Course	ID
None	

3- Course General Objectives:

The Mathematics program promotes mathematical skills and knowledge for their intrinsic beauty, ... recognize real-world problems that are amenable to *mathematical analysis*, and for- .... Some connections between the key *objectives*, *main* subject-specific areas

4- Intended Learning Outcomes (ILO):

Code	Intended Learning Outcomes
ILO1	The Notion of a Function Intervals Algebra Review: Zeros of Polynomials
ILO2	Introduction to complex numbers
ILO3	Power Series, Limits and Residues
ILO4	Properties of Limits Existence or Nonexistence of the Limit
ILO5	One-Sided Continuity Continuity over a Closed Interval
ILO6	Differentiation of Composite Functions IMPLICIT DIFFERENTIATION HIGHER-ORDER DERIVATIVES

ILO7	Calculation of the Definite Integral Change of Variable in a Definite Integral
ILO8	Properties of the Definite Integral

5- Course Syllabus (18 hours of total synchronized sessions;18 hours of total Recorded Sessions)

- **RS**: Recorded Sessions**; SS**: Synchronized Sessions**;**

ILO	Course Syllabus	RS	SS	Type	Additional Notes
ILO1	Real numbers	2	2	Exercises Assignments Seminars	
ILO2	complex numbers	2	2	Exercises Assignments Seminars	
ILO3	Series, Limits and Residues	4	4	Exercises Assignments Seminars	
ILO4	Continuity Continuity over a Closed Interval	2	2	Exercises Assignments Seminars	
ILO5	Differentiation of Composite Functions	2	2	Exercises Assignments Seminars	
ILO6	HIGHER-ORDER DERIVATIVES	2	2	Exercises Assignments Seminars	
ILO7	Calculation of the Definite Integral	2	2	Exercises Assignments Seminars	
ILO8	Properties of the Definite Integral	2	2	Exercises Assignments Seminars	

6- Assessment Criteria (Related to ILOs)

ISC	Interactive Synchronized Collaboration		Ex	Exams		Rpt	Reports
PF2F	Presentations and Face-to-Face Assessments		PW	Practice Work			

ILO Code	ILO	Intended Results	Assessment Type				
			ISC	PW	Ex	PF2F	Rpt
ILO1	Real numbers		√	√	□		□
ILO2	complex numbers		√	√	□		□
ILO3	Series		√	√	□		□
ILO4	Limits		√	√	□		□
ILO5	Continuity		√	√	□		□
ILO6	Differentiationof		√	√	□		□
ILO7	Integral		√	√	□		□
ILO8	Definite Integral		√	√	□		□

7-Practice Tools: Non

8-Main References

1- **SVU Course Notebook of MA1**

2- **Textbook/Mathematical Analysis/, Imad Fattash and Moaaz Abd Almajeed , Damascus Uni.,.**

9-Additional References

- Thomas' Calculus 12th Edition, George B. Thomas
- Advanced Engineering Mathematics, 9th Edition, Erwin Kreyszig, John Wiley