

Mathematics Minor

To earn the Mathematics Minor Certificate, 3 Required Courses, 4 Core Elective Courses (Minimum one course must be 2xx coded and two courses 3xx or 4xx coded.)

Year -2 Semester-3					
Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS Credits
MATH 201	Linear Algebra	Required Course 1		3	6
TERM TOTAL				3	6

Year -3 Semester-5					
Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS (Total)
MATH 301 or MATH 311	Introduction to Mathematical Analysis or Introduction to Algebra	Required Course 2		3	6
TERM TOTAL				3	6

Year -4 Semester-7					
Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS (Total)
MATH 3XX or MATH 4XX		Core Elective Course 3		3	6
TERM TOTAL				3	6

Year -2 Semester-4					
Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS Credits
MATH 2XX		Core Elective Course 1		3	6
MATH 2XX		Core Elective Course 2		3	6
TERM TOTAL				6	12

Year -3 Semester-6					
Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS Credits
MATH 301 or MATH 311	Introduction to Mathematical Analysis or Introduction to Algebra	Required Course 3		3	6
TERM TOTAL				3	6

Year -4 Semester-8					
Course Code	Course Name	Course Type	Prerequisite Courses	SU Credits	ECTS Credits
MATH 3XX or MATH 4XX		Core Elective Course 4		3	6
TERM TOTAL				3	6

Required Courses

Students must take the following 3 courses:						
Course Code	Course Name	Course Type	When	SU Credits	ECTS	Pre-requisites
MATH 201	Linear Algebra	Required Course	3/4 th Semester	3	6	
MATH 301	Introduction to Mathematical Analysis	Required Course	5/6 th Semester	3	6	
MATH 311	Introduction to Algebra	Required Course	5/6 th Semester	3	6	

Suggested 2XX Core Elective Courses for the Mathematics Minor Program

Students must take at least 1 course from the below list:						
Course Code	Course Name	Course Type	When	SU Credits	ECTS	Pre-requisites
MATH 202	Differential Equations	Core Elective Course	3/4 th Semester	3	6	Undergraduate level MATH 102 Minimum Grade of D
MATH 203	Introduction to Probability	Core Elective Course	3/4 th Semester	3	6	Undergraduate level MATH 102 Minimum Grade of D
MATH 204	Discrete Mathematics	Core Elective Course	3/4 th Semester	3	6	
MATH 206	Vector Calculus	Core Elective Course	3/4 th Semester	3	6	Undergraduate level MATH 102 Minimum Grade of D

Suggested 3XX and 4XX Core Elective Courses for the Mathematics Minor Program

Students must take at least 2 course from the below list:						
Course Code	Course Name	Course Type	When	SU Credits	ECTS	Pre-requisites
MATH 302	Integration	Core Elective Course	5/6/7/8 th Semester	3	6	
MATH 305	Complex Calculus	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 102 Minimum Grade of D
MATH 307	Dynamical Systems	Core Elective Course	5/6/7/8 th Semester	3	6	
MATH 317	Elementary Number Theory	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 102 Minimum Grade of D AND Undergraduate level MATH 201 Minimum Grade of D
MATH 318	Introduction to Combinatorics	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 201 Minimum Grade of D
MATH 322	Partial Differential Equations	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 202 Minimum Grade of D
MATH 401	Introduction to Functional Analysis	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 301 Minimum Grade of D
MATH 402	Hilbert Space Techniques	Core Elective Course	5/6/7/8 th Semester	3	6	
MATH 409	Proofs from the Notebook	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 201 Minimum Grade of D AND Undergraduate level MATH 301 Minimum Grade of D
MATH 410	Introduction to Stochastic Calculus	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 203 Minimum Grade of D
MATH 414	Finite Fields and Applications	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level MATH 311 Minimum Grade of D
ECON 494	Spatial Data Science	Core Elective Course	5/6/7/8 th Semester	3	6	
ENS 409	Numerical Analysis	Core Elective Course	5/6/7/8 th Semester	3	6	Undergraduate level CS 201 Minimum Grade of D