Course Syllabus

Code - Course Title	**MAT313 - Differential Geometry I**
Course Type	V. SEMESTER
Laboratory + Practice	3+0
ECTS	**5.0**
Language of Instruction	Türkçe
Course Type	Area Elective Courses
Course Instructor(s)	PROF. DR. MURAT LİMONCU

Mode of Delivery	The mode of delivery of this course is Face to face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	Linear Algebra I, II
Recommended Resources	Sabuncuoğlu, A. (2001) Diferensiyel Geometri. Nobel Yayın Dağıtım Lim. Şti.
Work Placement	N/A

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Euclidian space, Tangent vectors	
Week - 2		Vector fields, Directional derivative	
Week - 3		Directional derivative, Curves	
Week - 4		1-forms	
Week - 5		Curves, 1-forms	
Week - 6		1-forms	
Week - 7		properties of maps	
Week - 8		curves again	
Week - 9		Frenet-Serret Formulas	
Week - 10		derivation and examples of derivations	
Week - 11		Arbitrarly parametrised curves	
Week - 12		Covariant derivative	
Week - 13		Frame fields	
Week - 14		Cartan Structure equations on 3-dimension	

Learning Outcomes

#	Learning Outcome
1	forms and their interrelationship.
2	prove propositions.
3	do applications.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.

Assessment Method and Passing Requirements	Quamtity	Percentage (%)
1.Midterm Exam	1	20
Final Exam	1	50
2.Midterm Exam	1	30
	Sum (%)	**100**