COURSE DETAIL

DIFFERENTIAL GEOMETRY 1

Country
Korea, South

Host Institution
Yonsei University

Program(s)
Yonsei University

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Mathematics

UCEAP Course Number
130

UCEAP Course Suffix
A

UCEAP Official Title
DIFFERENTIAL GEOMETRY 1

UCEAP Transcript Title
DIFFERENTL GEOMETRY

UCEAP Quarter Units
4.50

UCEAP Semester Units

3.00

Course Description

This course studies geometric properties of curves and surfaces in the 3-dimensional Euclidean space, applying tools of multivariable and vector calculus. Topics include Euclidean Space, Tangent Vectors, Directional Derivatives, Curves in R^3, Differential forms, Mappings, Dot Products, Curves, The Frenet Formulas, Arbitrary-Speed Curves, Isometries of R^3, The Tangent Map of an Isometry, Euclidean Geometry, Congruence of Curves, Surfaces in R^3, Patch Computations, Differential Functions and Tangent vectors, Differential Forms on a Surface, Mappings of Surfaces, Integrations of forms, and Topological Properties of Surfaces.

Language(s) of Instruction
English

Host Institution Course Number
MAT3103

Host Institution Course Title
DIFFERENTIAL GEOMETRY (1)

Host Institution Course Details
https://ysweb.yonsei.ac.kr/SG/sg13_applypop2.jsp?srcform=myForm1&hakno=MAT3103&...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mathematics

Course Last Reviewed
2021-2022

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