

COURSE DETAIL

DIFFERENTIAL GEOMETRY 2

Country

Korea, South

Host Institution

Yonsei University

Program(s)

Yonsei University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

100

UCEAP Course Suffix

B

UCEAP Official Title

DIFFERENTIAL GEOMETRY 2

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 covariant derivatives, frame fields, connection forms, structural equations, normal curvatures, gaussian curvature, computational techniques, special curves in a surface, form computation, isometries and local isometries, intrinsic geometry, orthogonal coordinates, integration and orientation, total curvature, geodesics, the Gauss-Bonnet theorem, application of Gauss-Bonnet theorem.

Language(s) of Instruction

English

Host Institution Course Number

MAT3102

Host Institution Course Title

DIFFERENTIAL GEOMETRY (2)

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematics

Course Last Reviewed

2022-2023

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