

# 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, application of gauss-bonnet theorem.

### **Language(s) of Instruction**

English

### **Host Institution Course Number**

MAT3102

### **Host Institution Course Title**

DIFFERENTIAL GEOMETRY (2)

### **Host Institution Campus**

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Mathematics

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