COURSE DETAIL

NUMERICAL OPTIMIZATION
Country Hong Kong
Host Institution Chinese University of Hong Kong
Program(s) Chinese University of Hong Kong
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 106
UCEAP Course Suffix
UCEAP Official Title NUMERICAL OPTIMIZATION
UCEAP Transcript Title NUMER OPTIMIZATION
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course cover the analytical and programming skills required for applying standard optimization algorithms to engineering and AI problems. It covers basic topics on optimization including the theory of unconstrained and constrained optimization, dual optimization tasks, linear programming, convex optimization, line search methods, trust-region methods, gradient descent, and Newton's method. Pre-requisite: ENGG1120 or ENGG1130 or ESTR1005 or ESTR1006 or MATH1510. Not for students who have taken AIST3010 or ESTR3112 or ESTR3114.

Language(s) of Instruction
English

Host Institution Course Number
AIST3030

Host Institution Course Title
NUMERICAL OPTIMIZATION

Host Institution Course Details
https://rgsntl.rgs.cuhk.edu.hk/aqs_prd_applx/Public/tt_dsp_crse_catalog.aspx

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computer Science and Engineering

Course Last Reviewed
2025-2026

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