COURSE DETAIL

INFORMATION THEORY
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 136
UCEAP Course Suffix
UCEAP Official Title INFORMATION THEORY
UCEAP Transcript Title INFORMATION THEORY
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
This course introduces the basics of information theory, covering how information can be quantified, and how this quantification can be used to provide an understanding of data compression and communication. While this course focuses on these classical applications of information theory, the underlying mathematical tools and techniques have since been demonstrated as being considerably more far-reaching, with broad applications in modern machine learning and data science. Topics covered include Shannon's information measures and their properties, fundamental limits of data compression and noisy channel coding, and practical compression and error-correcting codes.

Language(s) of Instruction
English

Host Institution Course Number
CS3236

Host Institution Course Title
INTRODUCTION TO INFORMATION THEORY

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computer Science

Course Last Reviewed

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