THE CHINESE UNIVERSITY OF HONG KONG
Print Course Catalog Details

Academic Org: Div of Computer Science & Engg – Subject: Courses offered by Fac of Erg

Course: ENGG5103 **Course ID:** 011156 **Eff Date:** 2024-07-01 **Crse Status: Active** **Apprv. Status:** Approved **[**New Course**]**
Techniques for Data Mining 數據採集技術

Data mining provides useful tools for the analysis, understanding and extraction of useful information from huge databases. These techniques are used in business, finance, medicine and engineering. This course will introduce the techniques used in data mining. Topics will include clustering, classifi cation, estimation, forecasting, statistical analysis and visualization tools.

數據採集(data mining)技術是針對巨型數據庫有用資料之提取與分析提供的有用工具。這些技術通用於商業、財務、醫藥與工程。本科將介紹此方法有關的包括聚類法、分類法、估值法、預測模型、統計分析與可視化的技術方法。

Grade Descriptor:

A

EXCELLENT – exceptionally good performance and far exceeding expectation in all or most of the course learning outcomes; demonstration of superior understanding of the subject matter, the ability to analyze problems and apply extensive knowledge, and skillful use of concepts and materials to derive proper solutions.

有關等級說明的資料，請參閱英文版本。

B+

B

GOOD – good performance in all course learning outcomes and exceeding expectation in some of them; demonstration of good understanding of the subject matter and the ability to use proper concepts and materials to solve most of the problems encountered.

有關等級說明的資料，請參閱英文版本。

C

FAIR – adequate performance and meeting expectation in all course learning outcomes; demonstration of adequate understanding of the subject matter and the ability to solve simple problems.

有關等級說明的資料，請參閱英文版本。

D

MARGINAL – performance barely meets the expectation in the essential course learning outcomes; demonstration of partial understanding of the subject matter and the ability to solve simple problems.

有關等級說明的資料，請參閱英文版本。

F

FAILURE – performance does not meet the expectation in the essential course learning outcomes; demonstration of serious deficiencies and the need to retake the course.

有關等級說明的資料，請參閱英文版本。

Equivalent Offering:
Units: 3 (Min) / 3 (Max) / 3 (Acad Progress)
Grading Basis: Graded
Repeat for Credit: N
Multiple Enroll: N

Course Attributes:

MSc Computer Science
MPhil-PhD Computer Sci & Erg
MPhil-PhD Electronic Erg
MPhil-PhD Info Engineering
MPhil-PhD Mechan & Auto Erg
MPhil-PhD System Erg & Erg Mgt
MPhil-PhD Information Engineering
MPhil-PhD Biomedical Engineering

Topics:

COURSE OUTCOMES

Learning Outcomes:

At the end of the course of studies, students will have acquired the ability to
1. describe the whole data mining process,
2. identify the objectives and tasks of data mining problems,
3. select and apply the appropriate techniques to solve data mining problems

Course Syllabus:

Data mining provides useful tools for the analysis, understanding and extraction of useful information from huge databases. These techniques are used in business, finance, medicine and engineering.
This course will introduce the techniques used in data mining. Topics will include clustering, classifi cation, estimation, forecasting, statistical analysis and visualization tools.

Assessment Type:

Essay test or exam	: 60%
Others	: 40%

Feedback for Evaluation:

1. Course evaluation and questionnaire
2. Question-and-answer sessions during class
3. Student consultation during office hours or online

Required Readings:

To be provided by course teacher.

Recommended Readings:

1. Tan, Steinbach and Kumar, Introduction to Data Mining. Addison Wesley, 2006

OFFERINGS

1. ENGG5103 — Acad Organization=CSEGV; Acad Career=RPG

COMPONENTS

LEC : Size=30; Final Exam=Y; Contact=3
TUT : Size=30; Final Exam=N; Contact=1

ENROLMENT REQUIREMENTS

1. ENGG5103

Enrollment Requirement Group:

For students in MSc Computer Science or MPhil-PhD programmes under Faculty of Engineering or UG Computer Science or UG Computer Engineering;
Not for students who have taken CMSC5724 or CSCI5180

Additional Information

VTL-Onsite face-to-face hrs 0
VTL-Online synch. hrs 0
VTL-Online asynch. hrs 0

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