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: ENGG5106 **Course ID:** 011159 **Eff Date:** 2022-07-01 **Crse Status: Active** **Apprv. Status:** Approved **[**Course Rev**]**

Information Retrieval and Search Engines **訊息檢索與搜索引擎**

This course surveys the current research in information retrieval for the Internet and related topics. This course will focus on the theoretical development of information retrieval systems for multimedia contents as well as practical design and implementation issues associated with Internet search engines. Topics include probabilistic retrieval, relevance feedback, indexing of multimedia data, and applications in e-commerce.

本課程涵蓋互連網訊息檢索研究及其相關課題。課程將集中討論多媒體訊息查詢系統的理論研究，同時也將涉及互連網搜索引擎的實際應用設計和實現。課題包括：概率查詢、相關信息反饋、多媒體數據索引以及電子商務方面的應用。

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

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. understand the infrastructure and techniques behind Search Engines;
2. know the existing literature and research challenges in the area of Information Retrieval;
3. realize how to organize and manage huge amount of information, such as that from on the Web;
4. practice a real project in information retrieval system and/or search engine prototype.

Course Syllabus:

This course surveys the current research in information retrieval for the Internet and related topics. This course will focus on the theoretical development of information retrieval systems for multimedia
contents as well as practical design and implementation issues associated with Internet search engines. Topics include probabilistic retrieval, relevance feedback, indexing of multimedia data, and
applications in e-commerce.

Assessment Type:

Essay test or exam	: 40%
Lab reports	: 40%
Others	: 20%

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:

1. Christopher D. Manning, Prabhakar Raghavan and Hinrich Schütze, Introduction to Information Retrieval, Cambridge University Press. 2008.

Recommended Readings:

1. Managing Gigabytes, by I. Witten, A. Moffat, and T. Bell.
2. Information Retrieval: Algorithms and Heuristics by D. Grossman and O. Frieder.
3. Modern Information Retrieval, by R. Baeza-Yates and B. Ribeiro-Neto.
4. Search Engines: Information Retrieval in Practice, by Bruce Croft, Donald Metzler and Trevor Strohman.
5. Information Retrieval: Implementing and Evaluating Search Engines, by Stefan Buettcher, Charles L. A. Clarke and Gordon V. Cormack.
6. Other papers associated with each topic

OFFERINGS

1. ENGG5106 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. ENGG5106

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 CSCI5250

CAF

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