

Academic Org: Fac Office of Engineering – Subject: Courses offered by Fac of Eng

Course: ENGG2440 **Course ID:** 011493 **Eff Date:** 2022-07-01 **Crse Status:** Active **Apprv. Status:** Approved **【Course Rev】**
Discrete Mathematics for Engineers 離散數學的工程應用

Set theory, functions, relations, combinatorics, graph theory, algebraic systems, propositional and predicate logic.

集（合）論、函數、關係（式）、組合學、圖論、代數系（統）、命題及謂詞邏輯。

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:

Topics:

COURSE OUTCOMES

Learning Outcomes:

Learning Outcomes:
1. be familiar with basic mathematical concepts, e.g. sets, functions, graphs
2. be familiar with formal mathematical reasoning, e.g. logic, proofs
3. be able to see the connections between discrete mathematics and computer science

Course Syllabus:

According to the course teacher in the respective teaching term.

Assessment Type:

Others : 40%
Short answer test or exam : 60%

Feedback for Evaluation:

- Feedback for Evaluation
1. Results of assignments and examination
 2. Course evaluation and questionnaire
 3. Reflection of teachers
 4. Question-and-answer sessions during class
 5. Student consultation during office hours or online

Required Readings:

To be provided by course instructor.

Recommended Readings:

- Recommended Reading List:
1. Discrete Mathematics with Applications, by Susanna S. Epp.
 2. Course notes of "mathematics for computer science" in MIT.

OFFERINGS

1. ENGG2440 Acad Organization=ENO; Acad Career=UG

COMPONENTS

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

ENROLMENT REQUIREMENTS

1. ENGG2440 **Enrollment Requirement Group:**
Not for students who have taken CSCI2110 or ENGG2460 or ESTR2004 or ESTR2010 or ESTR2362 or MIEG2440.

CAF

eLearning hrs for blended cls 0
No. of micro-modules 0
Research components (UG) 0%

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