

Academic Org: Dept of Computer Sci & Engg – Subject: Computer Science

Course: CSCI3150 **Course ID:** 002587 **Eff Date:** 2022-07-01 **Crse Status:** Active **Apprv. Status:** Approved **【Course Rev】**
Introduction to Operating Systems 操作系統導論

This course introduces the various internal components of an operating system, including process and thread management, memory management, file system, security, and synchronization.

本科介紹操作系統的各種內部組件，包括進程和線程管理，內存管理，文件系統，安全性和同步。

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:

1. Understand key operating systems concepts including process management, memory management, file systems, and I/O;
2. Hands-on experience with operating systems design and implementation;
3. Insight with both the UNIX and the Windows operating systems;

Course Syllabus:

This course introduces the various internal components of an operating system, including process and thread management, memory management, file system, security, and synchronization.

Assessment Type:

Essay test or exam : 60%
Homework or assignment : 10%
Short answer test or exam : 30%

Feedback for Evaluation:

1. In-class informal survey
2. Course newsgroup

3. Informal discussion with students
4. Mid-term and final course evaluation

Required Readings:

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Recommended Readings:

1. Operating Systems Design and Implementation, 3rd Edition. Andrew S. Tanenbaum and Albert S. Woodhull, Pearson Prentice Hall, 2006
2. Operating Systems Principles, 7th Edition. Abraham Silberschatz, Peter Baer Galvin, Greg Gagne, Wiley 2006
3. Advanced Programming in the UNIX Environment. W. Richard Stevens, Addison Wesley, 1992

OFFERINGS

1. CSCI3150 Acad Organization=CSD; Acad Career=UG

COMPONENTS

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

ENROLMENT REQUIREMENTS

1. CSCI3150

Enrollment Requirement Group:

Prerequisite: ESTR2102 or CSCI2100 or 2520.
For senior-year entrants, the prerequisite will be waived.
Co-requisite: AIST3020 or CSCI2510 or CENG3420 or IERG3060 or equivalent.
Not for students who have taken ESTR3102.

New Enrollment Requirement(s):

Pre-requisite = no change
Co-requisite = no change
Exclusion = no change

CAF

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

< E N D O F R E P O R T >