國立交通大學 雲端計算 學分學程實施辦法

一、本學分學程主要目的在於為本校學生提供雲端計算技術等相關課程，培養具備雲端計算理論與實務能力。

二、凡本校大學部與研究生，均可申請修讀本學程，修滿本學程規定之科目及學分者，由本校發給學程修畢證明。

三、本學程之學分規定修滿 18 學分，其中包括基礎課程、核心課程應用課程；修讀課程必須至少包含 1 門基礎課程、2 門核心課程及 1 門應用課程。

四、本校研究生，如大學非就讀本校者，其大學時期曾修讀本學程基礎課程，經申請核准後始可抵免雲端計算學程基礎課程(至多兩門)。

學分學程課程規劃表

1.　學程名稱：**雲端計算(Cloud Computing)**

2.　課程名稱及開課系所：(總學分必須修滿 18 學分)

A 基礎課程：(至少修滿 3 學分)

課程名稱	開課系所	學分	備註
計算機組織	資工	3	大學部、研究所(計算機架構) (計算機架構等相關課程可申請抵免)
計算機網路概論	資工	3	大學部、研究所 (計算機網路等相關課程可申請抵免)
作業系統概論	資工	3	大學部、研究所

B 核心課程：(至少修滿 6 學分)

課程名稱	開課系所	學分	備註
虛擬化技術	資工	3	大學部、研究所 (嵌入式虛擬化技術等相關課程可申請抵免)
雲端計算	資工	3	大學部、研究所
資料探勘	資工	3	大學部、研究所
雲端作業系統	**資工**	**3**	**研究所**

C 應用課程：(至少修滿 3 學分)

課程名稱	開課系所	學分	備註
雲端計算系統與實務	資工	3	研究所
雲端計算安全	資工	3	研究所
雲端行動感測應用	資工	3	研究所
雲端資料探勘	**資工**	**3**	**研究所**

3.　召集人姓名：系主任　　　　單位：資工系

4.　聯絡人姓名：助　理　　　　單位：資工系

Credit & Program Implementation Rules of NCTU: <u>Cloud Computing</u>

1. The objective of this program is to provide students with courses related to cloud computing technology and to develop their theoretical and practical abilities.
2. Both undergraduate and postgraduate students of NCTU may apply to study in this program. A certificate of program completion is issued upon completion of the subjects and credits specified by the program.
3. The number of credits required by the program is 18, which must consist of at least 1 foundation course, 2 core courses and 1 application course.
4. NCTU postgraduates who did not obtain a bachelor's degree from NCTU, but have studied the foundation courses during their undergraduate studies, may have up to 2 foundation courses of Cloud Computing Program exempted upon approval.

Credit & Course Planning Table

1. Program name: **<u>Cloud Computing</u>**
2. Course name and department: (Total credits required: 18)

A. Foundation Courses: (minimum requirement: 3 credits)

Course Name	Department	Credits	Remarks
Computer Organization	CS	3	Undergraduate, postgraduate (Computer Architecture) (Those who have studied courses related to Computer Architecture may apply for credit exemption.)
Introduction to Computer Networking	CS	3	Undergraduate, postgraduate (Those who have studied courses related to Computer Networking may apply for credit exemption.)
Introduction to Operating Systems	CS	3	Undergraduate, postgraduate

B. Core Courses: (minimum requirement: 6 credits)

Course Name	Department	Credits	Remarks
Virtualization Technology	CS	3	Undergraduate, postgraduate (Those who have studied courses related to Embedded Virtualization Technology may apply for credit exemption.)
Cloud Computing	CS	3	Undergraduate, postgraduate
Data Mining	CS	3	Undergraduate, postgraduate
Cloud Operating Systems	**CS**	**3**	**Postgraduate**

C. Application Courses: (minimum requirement: 3 credits)

Course Name	Department	Credits	Remarks
Cloud Computing Systems and Practices	CS	3	Postgraduate
Cloud Computing Security	CS	3	Postgraduate
Cloud Mobile Sensing Applications	CS	3	Postgraduate
Cloud Data Mining	**CS**	**3**	**Postgraduate**

3. Convener: <u>Ching Yu-Tai</u>　　　Unit: <u>Department of Computer Science</u>
4. Contact person: <u>Tsao Ya-Ting</u>　　Unit: <u>Department of Computer Science</u>