


國立東華大學
教學計劃表 Syllabus

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| 課程名稱(中文) Course Name in Chinese | 網際網路通訊協定 | | 學年/學期 Academic Year/Semester | 107/2 |
| 課程名稱(英文) Course Name in English | Internet Protocols | | | |
| 科目代碼 Course Code | CSIEB0390 | 系級 Department & Year | 學三 | 開課單位 Course-Offering Department |
| 修別 Type | 學程 Program | 學分數/時間 Credit(s)/Hour(s) | 3.0/3.0 | |
| 授課教師 Instructor | /黃振榮 | | | |
| 先修課程 Prerequisite | | | | |
| 課程描述 Course Description | | | | |
| Internet is becoming the standard networks for practical use. Many real applications and software tools are all over Internet. This course provides an overall description on the TCP/IP protocol suites according to the traditional classification of a network protocol stack. There are 3 parts in this course: lectures, midterm, and some projects covering some Internet applications/services labs. | | | | |
| 課程目標 Course Objectives | | | | |
| 介紹網際網路的通訊協定 | | | | |
| 系專業能力 Basic Learning Outcomes | | | | 課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives |
| A | 資訊專業終身學習能力 Profound professional knowledge and skills | | | ● |
| B | 實驗驗證資訊科學能力 Sound and free spirit; simple and generous quality | | | ○ |
| C | 資訊工具整合運用能力 Ability to appreciate beauty and think creatively | | | ● |
| D | 資訊系統應用設計開發能力 Sense of democracy, the rule of law, and civil responsibility | | | ○ |
| E | 團隊合作溝通協調能力 Ability of communication, teamwork, and social practice | | | ● |
| F | 資通訊科技問題解決能力 Possess both domestic and global perspectives | | | ● |
| G | 瞭解資訊科技多元影響能力 Knowledgeable and possess the quality of humanism | | | ● |
| H | 肩負資訊社會責任能力 Ability of verbal expression and information organization and application | | | ○ |
| 圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated | | | | |
| 授課進度表 Teaching Schedule & Content | | | | |
| 週次 Week | 內容 Subject/Topics | | | 備註 Remarks |
| 1 | Internet Applications And Network Programming | | | |
| 2 | 2/28 休假 | | | |
| 3 | Traditional Internet Applications | | | |

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|----|--|--|
| 4 | Internetworking: Concepts, Architecture, And Protocols | |
| 5 | IP: Internet Addressing | |
| 6 | Datagram Forwarding | |
| 7 | 春假 | |
| 8 | UDP: Datagram Transport Service | |
| 9 | 期中考試週 Midterm Exam | |
| 10 | TCP: Reliable Transport Service | |
| 11 | Internet Routing And Routing Protocols | |
| 12 | Network Performance (QoS And DiffServ) | |
| 13 | Multimedia And IP Telephony (VoIP) | |
| 14 | Network Management (SNMP) | |
| 15 | Software Defined Networking (SDN) | |
| 16 | The Internet Of Things | |
| 17 | Trends In Networking Technologies And Uses | |
| 18 | 期末考試週 Final Exam | |

教學策略 Teaching Strategies

- 課堂講授 Lecture
 分組討論 Group Discussion
 參觀實習 Field Trip
 其他 Miscellaneous:

教學創新自評 Teaching Self-Evaluation

創新教學 (Innovative Teaching)

- 問題導向學習 (PBL)
 團體合作學習 (TBL)
 解決導向學習 (SBL)
 翻轉教室 Flipped Classroom
 磨課師 Moocs

社會責任 (Social Responsibility)

- 在地實踐 Community Practice
 產學合作 Industry-Academia Cooperation

跨域合作 (Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
 跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

學期成績計算及多元評量方式 Grading & Assessments

| 配分項目 Items | 配分比例 Percentage | 多元評量方式 Assessments | | | | | | | |
|-------------------------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|----|
| | | 測驗 會考 | 實作 觀察 | 口頭 發表 | 專題 研究 | 創作 展演 | 卷宗 評量 | 證照 檢定 | 其他 |
| 平時成績 General Performance | 30% | | ✓ | | | | | | |
| 期中考成績 Midterm Exam | 35% | ✓ | | | | | | | |
| 期末考成績 Final Exam | 35% | ✓ | | | | | | | |
| 作業成績 Homework and/or Assignments | | | | | | | | | |
| 其他 Miscellaneous (_____) | | | | | | | | | |

評量方式補充說明
Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)
Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

1. Douglas E. Comer, "Computer Networks and Internets, 6/E", 2014, ISBN-13: 978-0133587937
2. James F. Kurose, Keith W. Ross, "Computer Networking A Top-Down Approach-7ed", 2016, ISBN-13: 978-0133594140
3. Alena Kabelová, Libor Dostálek, "A clear and comprehensive guide to TCP/IP protocols", 2006, ISBN-13:9780133587937
4. Craig Hunt, "TCP/IP Network Administration, 3rd Edition", 2002, ISBN: 0596002971
5. Behrouz A. Forouzan, "TCP IP Protocol Suite 4e", 2010, ISBN: 0070166781

課程教材網址 (教師個人網址請列在本校內之網址)
Teaching Aids & Teacher's Website (Personal website can be listed here.)

其他補充說明 (Supplemental instructions)