# 國立東華大學

## 課　綱　Course Outline
### 資訊工程學系資工組

| 中文課程名稱<br>Course Name in Chinese | 計算機概論 | | | | |
|---|---|---|---|---|---|
| 英文課程名稱<br>Course Name in English | Introduction to Computer Science | | | | |
| 科目代碼<br>Course Code | CSIE10200 | 班 別<br>Degree | 學士班<br>Bachelor's | | |
| 修別<br>Type | 學程<br>Program | 學分數<br>Credit(s) | 3.0 | 時 數<br>Hour(s) | 3.0 |
| 先修課程<br>Prerequisite | 無 | | | | |

### 課程目標
### Course Objectives

介紹計算機科學與工程的入門知識，使初步接觸此學門的本科系學生對於各
重要領域能有一通盤性的瞭解，課程尤強調學生的程式設計能力與計算機網
路的使用，以奠定日後修習各類課程的基礎。

### 系教育目標
### Dept.'s Education Objectives

| 1 | 具備學科知識、養成專業技能<br>Acquire academic knowledge, develop professional skills |
|---|---|
| 2 | 學習創新思考，分析解決問<br>Inspire innovative thinking, increase analytical problem solving ability |
| 3 | 培養團隊精神，學習溝通合作<br>Promote teamw ork spirit, encourage coordination and cooperation |
| 4 | 提昇專業倫理、承擔社會責任<br>Sublimate professional ethics, engage social responsibility |
| 5 | 涵育人文素養、開拓國際視野<br>Cultivate humanities, broaden global perspective |

| | 系專業能力<br><br>Basic Learning Outcomes | 課程目標與系專業能力相關性<br>Correlation between Course Objectives and Dept.'s Education Objectives |
|---|---|---|
| A | 資訊專業終身學習能力<br>Ability of lifetime learning in information profession | ● |
| B | 實驗驗證資訊科學能力<br>Ability of validate experimental result validation in information science field | ○ |

| C | 資訊工具整合運用能力<br>Ability of integrated applications of information technology | ● |
|---|---|---|
| D | 資訊系統應用設計開發能力<br>Ability of information application system design and development | ● |
| E | 團隊合作溝通協調能力<br>Ability of teamwork, communication, and coordination | ● |
| F | 資通訊科技問題解決能力<br>Ability of problem solving regarding information and communication technolog | ○ |
| G | 瞭解資訊科技多元影響能力<br>Ability to understand information technology's multiple influences | ● |
| H | 肩負資訊人社會責任能力<br>Ability of bearing the social responsibilities being among information professionals | ○ |

圖示說明Illustration ：● 高度相關 Highly correlated ○中度相關 Moderately correlated

## 課程大綱
## Course Outline

1. Basic Computer Concept
2. Data Representation
3. Boolean algebra and logic design
4. Computer Organization
5. Algorithms
6. Operating Systems
7. Computer Networks
8. Programming Language
9. Software Engineering
10. Multimedia
11. Database Systems

## 資源需求評估（師資專長之聘任、儀器設備的配合‧‧‧等）
## Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

本系已有這方面的師資，電腦設備也足以配合。

## 課程要求和教學方式之建議
## Course Requirements and Suggested Teaching Methods

講授、討論與程式設計
教學以講授及討論為主，並輔以專題研究、作業及口頭報告。

## 其他
## Miscellaneous