

# TU156 Introduction to Computers and Programming

**Homepage:** <http://songyot.ece.engr.tu.ac.th/TU156>  
<http://prog.ece.engr.tu.ac.th>

**Prerequisite:** none

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## Course Description:

Basic concepts of computer systems, electronic data processing and concepts, system and application software, algorithms, flowcharts, data representation, program design and development methodology, problem solving using high-level language programming.

## Tentative Teaching Schedule:

| Topic | Course Topics                                                         |
|-------|-----------------------------------------------------------------------|
| 1     | Computer overview, hardware & software                                |
| 2     | Number system                                                         |
| 3     | Data representation                                                   |
| 4     | Programming development environment                                   |
| 5     | Introduction to C programming                                         |
| 6     | C Data types and Operators                                            |
| 7     | C Formatted I/O                                                       |
| 8     | Structured program development in C, algorithm, pseudocode, flowchart |
| 9     | C Program control – condition                                         |
|       | Midterm                                                               |
| 10    | C Program control – repetition                                        |
| 11    | C Functions                                                           |
| 12    | C Arrays                                                              |
| 13    | C Characters and strings                                              |
|       | Final                                                                 |

## Reference:

คู่มือการเขียนโปรแกรมภาษา C ฉบับสมบูรณ์ โดย รศ. ชีรวัฒน์ ประกอบผล

การเขียนโปรแกรมด้วยภาษา C โดย อ. โอภาส เอี่ยมสิริวงศ์

H. M. Deitel and P. J. Deitel, “*C How to Program*” 5<sup>th</sup> edition, Prentice Hall, 2007

## Grading:

|                     |   |     |
|---------------------|---|-----|
| Class participation | = | 10% |
| Lab test            | = | 10% |
| Midterm exam        | = | 35% |
| Final exam          | = | 45% |

## Evaluation:

|           |   |
|-----------|---|
| [80, 100] | A |
| [0, 45)   | F |