

# 99-1 Preliminary Syllabus, Da-Yeh Univ

| Information       |                          |                       |                |
|-------------------|--------------------------|-----------------------|----------------|
| Title             | 工程數學(三)                  | Serial No. / ID       | 0719 / EEI3005 |
| Dept.             | 電機工程學系                   | School System / Class | 大學日間部3年3班      |
| Lecturer          | 陳盛基                      | Full or Part-time     | 專任             |
| Required / Credit | Required / 3             | Graduate Class        | No             |
| Time / Place      | (二)12 / H340 (四)3 / H340 | Language              | Chinese        |

## Introduction

- 1.Complex variables : Complex number, De Moirre • 's theorem and roots, sets in complex plane, analytic functions and the Cauchy-Riemann equations, complex exponential.(A1,A2,A3,B1,B2,B3)
- 2.Complex integration : Line integrals in the complex plane, the Cauchy integral formula and Laurent functions (A1,A2,A3,B1,B2,B3)
- 3.Residues integration : Residues, evaluation of improper real integrals, evaluation of real definite integrals in sine and cosine.(A1,A2,A3,B1,B2,B3)

## Outline

1. Complex Analysis
2. The residual points
3. Partial differential equations

## Prerequisite

Calculus