

Curriculum planning of IET Program

128 credits

**University-Developed
Required Courses
24 credits**

**College-Developed
Core Courses
43 credits**

**College-Developed
Specialized Modular
Courses
48 credits**

**Elective Courses
13 credits**

University-Developed Required Courses(>24credits)

General Courses(12credits)

6	Chinese Languages and Literatures Area 國文領域	0	Service Learning (a) & (b) 服務學習
6	Foreign Languages Area 外文領域	0	Physical Fitness 健康體適能
0	Online English Program I & II 進階英文一、二	0	Physical Activity and Exercise 專項體育學群

Liberal/General Education Courses(12credits)

A1.Literature and Arts 文學與藝術	A4.Philosophy and Moral reasoning 哲學與道德思考
A2.Historical Thinking 歷史思維	A5.Civil Awareness and Social Analysis 公民意識與社會分析
A3.World Civilization 世界文明	A8.Life Science 生命科學

Students in this program follow the same guidelines as those in the College of Engineering. Credits earned in "Quantitative Analysis and Mathematical Literacy (A6)" and "Material Science (A7)" are counted as elective credits and do not contribute to liberal/general education credits. Courses from other liberal/general education fields can be taken without restrictions on the number of specified fields.

College-Developed Core Required Courses(>43credits)

- Year 1
- Year 2
- Year 1or2
- Year 3-4

2 **CALCULUS (1)**
微積分1
MATH4006
201E49810

2 **CALCULUS (2)**
微積分2
MATH4007
201E49820

3 **Engineering Mathematics (1)**
工程數學上
ME2001
502E20001

3 **Engineering Mathematics (2)**
工程數學下
ME2002
502E20002

4 **Mechanics of Materials**
材料力學
CIE2006
501E21210

2 **CALCULUS (3)**
微積分3
MATH4008
201E49830

2 **CALCULUS (4)**
微積分4
MATH4009
201E49840

Engineering Mathematics I & II (3 + 3 credits, total 6 credits; must take ME2001 and ME2002 offered by the Department of Mechanical Engineering)

3 **General Physics (a)(1)**
普通物理學甲上
Phys1006
202E101A1

3 **General Physics (a)(2)**
普通物理學甲下
Phys1007
202E101A2

2 **Engineering Graphics**
工程圖學
ME1003
502E16000

2 **Engineering Graphics**
工程圖學
CIE1005
501E10600

2 **Special Project for Bachelor Degrees Student**
學士專題研究

1 **General Physics Lab.(I)**
普通物理學實驗一
Phys1040
202E10510

1 **General Physics Lab.(II)**
普通物理學實驗二
Phys1042
202E10520

Engineering Graphics (2 credits, offered by ME1003 in the Department of Mechanical Engineering or CIE1005 in the Department of Civil Engineering; one can be chosen)

Bachelor's Thesis Research: Open to research courses from the College of Engineering, College of Electrical Engineering and Computer Science, and College of Science. Prior communication with the course instructor is required. At least 4 credits must be completed. Extra credits will count towards elective credits.

3 **General Chemistry (c)**
普通化學丙
Chem1009
203E101C0

3 **Introduction to Engineering**
工程導論
IET1001
50910030

2 **Computer Programming Language**
計算機程式
ME2009
502E10100

3 **Computer Programming**
計算機程式
MCIE1008
501E10800

1 **General Chemistry Lab.**
普通化學實驗
Chem1010
203E10500

Computer Programming (2 credits, offered by ME2009 in the Department of Mechanical Engineering or CIE1008 in the Department of Civil Engineering; one can be chosen. Extra credits will count towards elective credits)

2 **Applied Mechanics 1**
應用力學1
CIE1013
501E11010

2 **Statics**
靜力學
ME1005
502E21130

Applied Mechanics 1 or Statics : choose one to take

College-Developed Specialized Modular Required Courses(>48credits)

Structural Engineering and Foundation

3 Structural Theory (I)
結構學一
CCIE3010
501E32410

3 Soil Mechanics
土壤力學
CIE3026
501E36000

2 Engineering Material
工程材料學
CIE2019
501E27900

1 Engineering Material and Soil Mechanics Lab.
工程材料學與土壤力學實驗
CIE2012
501E23300

3 Reinforced Concrete
鋼筋混凝土學
CIE3009
501E32320

3 Foundation Engineering
基礎工程
CIE3028
501E36210

Intelligence Decision

3 Introduction to Stochastic Modeling
隨機過程
IE5032
546EU6010

3 Engineering Statistics
工程統計學
IE5059
546EU6000

3 Introduction to Optimization
最佳化概論
IE5056
546EU0600

3 Data Analytics
資料分析方法
IE5054
546EU4040

3 Production and Operations Scheduling
生產與作業排程
IE5041
546EU6110

Practice Module of Electrical and Mechanical Engineering in Semiconductor

3 Engineering Materials
工程材料
ME2004
502E22200

3 Mechanism
機動學
ME2006
502E24000

3 Applied Electronics (with Laboratory Session)
應用電子學(含實驗)
ME2102
502 27100

3 Practice of Semiconductor Equipment
半導體製程設備實務
ME8006
522ED0190

Environmental Sustainable Engineering

3 Air Quality Management
空氣品質管理
541 M2090

3 Sustainable Water and Energy Technologies
永續水回收資源循環工程
541 U0200

3 Environmental Planning and Management
環境規劃與管理
541M4050

3 Environmental Engineering and Sustainable Development
環境工程與永續發展
541U0270