

CURRICULUM MAP
Alignment of Subjects with Programme Intended Learning Outcomes

| | Programme Intended Learning Outcomes | AF2617* | AMA201* | AMA202* | AMA305* | CBS2080* | EIE211* | EIE304* | EIE305* | EIE306* | EIE311* | EIE312* | EIE320* | EIE322* | EIE329* | EIE331* | EIE333* | EIE338* | EIE401# | EIE402# | EIE403# | EIE408# | EIE413* | EIE414# | EIE415# | EIE424# | |
|----|--|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|
| 1 | Ability to apply knowledge of mathematics, science, and engineering appropriate to electronic and information engineering. | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2 | Ability to design and conduct experiments, as well as to analyse and interpret data. | | | | ✓ | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 3 | Ability to design a system, component or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability. | | | | | | ✓ | | | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | | | ✓ | |
| 4 | Ability to function on multi-disciplinary teams. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Ability to identify, formulate and solve engineering problems. | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 6 | Ability to understand professional and ethical responsibility. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Ability to communicate effectively. | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 8 | Ability to understand the impact of engineering solutions in a global and societal context, especially the importance of health, safety and environmental considerations to both workers and the general public. | | | | | | | | | | | | | | | | | | | | | ✓ | | | | | |
| 9 | Ability to stay abreast of contemporary issues. | ✓ | | | | | | | | | | | | | | | | ✓ | | | | | | | | | |
| 10 | Ability to recognize the need for, and to engage in life-long learning. | ✓ | | | ✓ | | | | | | | ✓ | | | ✓ | | | | | | | | | ✓ | | ✓ | |
| 11 | Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice appropriate to electronic and information engineering. | | | | | | ✓ | | | ✓ | | ✓ | | ✓ | ✓ | ✓ | | | | | | | ✓ | ✓ | | | |
| 12 | Ability to use the computer/IT tools relevant to electronic and information engineering along with an understanding of their processes and limitations. | | | | | | ✓ | | ✓ | | | | | ✓ | ✓ | ✓ | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 13 | Ability to understand the creative process. | | ✓ | ✓ | ✓ | | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 14 | Ability to exercise leadership when working in a team. | ✓ | | | | ✓ | | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Note:

- * Compulsory subject
- # Elective subject
- ✓ Supports this programme intended learning outcome

EIE Subject Title

EIE211 Logic Design
EIE304 Electronic Circuits
EIE305 Integrated Analogue and Digital Circuits
EIE306 IC Technology and Processes
EIE311 Computer System Fundamentals
EIE312 Linear Systems
EIE320 Object-Oriented Design and Programming
EIE322 Interface and Embedded Systems
EIE329 Integrated Project
EIE331 Communication Fundamentals
EIE333 Data and Computer Communications
EIE338 Applied Electromagnetics
EIE401 VLSI and Computer-Aided Circuit Design
EIE402 Power Electronics
EIE403 High Frequency Circuit Design
EIE408 Principles of Virtual Reality
EIE413 Digital Signal Processing
EIE414 Computer Architecture and Systems
EIE415 Multimedia Technology
EIE424 Distributed Systems and Network Programming
EIE433 Honours Project
EIE435 Image and Audio Processing
EIE443 Telecommunication Networks
EIE447 Mobile Communications
EIE448 Bioengineering Signals and Systems
EIE449 Optical Communication Systems and Networks
EIE450 Nanoscience and Technology for Electronic Engineering
EIE451 Circuits for Telecommunications

Servicing Subject Title

AF2617 Economics for Engineers
AMA201 Mathematics I
AMA202 Mathematics II
AMA305 Probability and Engineering Statistics
CBS2080 Fundamentals of Chinese Communication
ELC2501 University English I
ELC2502 University English II
ELC3508 English for Effective Workplace Communication
ENG224 Information Technology
ENG232 Engineering Science
ENG236 Computer Programming
ENG237 Basic Electricity and Electronics I
ENG238 Basic Electricity and Electronics II
ENG306 Engineering Management
ENG307 Society and The Engineer
GEC2801 China Studies
IC2105 Engineering Communication and Fundamentals
IC2111 Industrial Centre Training I for EIE
IC367 Industrial Centre Training II
MM2021 Management and Organisation

CURRICULUM MAP
Alignment of Subjects with Programme Intended Learning Outcomes

| | Programme Intended Learning Outcomes | EIE433* | EIE435# | EIE443# | EIE447# | EIE448# | EIE449# | EIE450# | EIE451# | ELC2501* | ELC2502* | ELC3508* | ENG224* | ENG232* | ENG236* | ENG237* | ENG238* | ENG306* | ENG307* | GEC2801* | IC2105* | IC2111* | IC367* | MM2021* | |
|----|--|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|--------|---------|---|
| 1 | Ability to apply knowledge of mathematics, science, and engineering appropriate to electronic and information engineering. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2 | Ability to design and conduct experiments, as well as to analyse and interpret data. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | ✓ | ✓ | | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3 | Ability to design a system, component or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability. | ✓ | | ✓ | | | ✓ | | ✓ | | | | | ✓ | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4 | Ability to function on multi-disciplinary teams. | ✓ | | | | | | | | | | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| 5 | Ability to identify, formulate and solve engineering problems. | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 6 | Ability to understand professional and ethical responsibility. | ✓ | | | | | | | | | | | | ✓ | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 7 | Ability to communicate effectively. | ✓ | | | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 8 | Ability to understand the impact of engineering solutions in a global and societal context, especially the importance of health, safety and environmental considerations to both workers and the general public. | ✓ | | | | | | | | | | | | | | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 9 | Ability to stay abreast of contemporary issues. | ✓ | | ✓ | | | | ✓ | | | | | ✓ | | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 10 | Ability to recognize the need for, and to engage in life-long learning. | ✓ | | ✓ | | | | | | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 11 | Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice appropriate to electronic and information engineering. | ✓ | | ✓ | | ✓ | | | | | | | | | ✓ | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 12 | Ability to use the computer/IT tools relevant to electronic and information engineering along with an understanding of their processes and limitations. | ✓ | | | | ✓ | | | | | | | ✓ | | ✓ | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 13 | Ability to understand the creative process. | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| 14 | Ability to exercise leadership when working in a team. | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | | | | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |

Note:

- * Compulsory subject
- # Elective subject
- ✓ Supports this programme intended learning outcome

EIE Subject Title

EIE211 Logic Design
EIE304 Electronic Circuits
EIE305 Integrated Analogue and Digital Circuits
EIE306 IC Technology and Processes
EIE311 Computer System Fundamentals
EIE312 Linear Systems
EIE320 Object-Oriented Design and Programming
EIE322 Interface and Embedded Systems
EIE329 Integrated Project
EIE331 Communication Fundamentals
EIE333 Data and Computer Communications
EIE338 Applied Electromagnetics
EIE401 VLSI and Computer-Aided Circuit Design
EIE402 Power Electronics
EIE403 High Frequency Circuit Design
EIE408 Principles of Virtual Reality
EIE413 Digital Signal Processing
EIE414 Computer Architecture and Systems
EIE415 Multimedia Technology
EIE424 Distributed Systems and Network Programming
EIE433 Honours Project
EIE435 Image and Audio Processing
EIE443 Telecommunication Networks
EIE447 Mobile Communications
EIE448 Bioengineering Signals and Systems
EIE449 Optical Communication Systems and Networks
EIE450 Nanoscience and Technology for Electronic Engineering
EIE451 Circuits for Telecommunications

Servicing Subject Title

AF2617 Economics for Engineers
AMA201 Mathematics I
AMA202 Mathematics II
AMA305 Probability and Engineering Statistics
CBS2080 Fundamentals of Chinese Communication
ELC2501 University English I
ELC2502 University English II
ELC3508 English for Effective Workplace Communication
ENG224 Information Technology
ENG232 Engineering Science
ENG236 Computer Programming
ENG237 Basic Electricity and Electronics I
ENG238 Basic Electricity and Electronics II
ENG306 Engineering Management
ENG307 Society and The Engineer
GEC2801 China Studies
IC2105 Engineering Communication and Fundamentals
IC2111 Industrial Centre Training I for EIE
IC367 Industrial Centre Training II
MM2021 Management and Organisation