

4 Year Curriculum of Electro-Optical Engineering (A.B.C)

P1-P5

Subject type	Subject type	Credit	Hours	grade	semester
Required in school	FRESHMAN ENGLISH(1)	3	3	1	1
Required in school	PHYSICAL EUDCATION(SWIMMING FOR BEGINNERS)	0	2	1	1
Required in school	NAVIGATING COLLEGE	1	1	1	1
Required in school	SELF-DIRECTED LEARNING	1	1	1	1
Required in school	CHINESE(I)	2	2	1	1
Required in school	FRESHMAN ENGLISH(2)	3	3	1	2
Required in school	PHYSICAL EDUCATION(PHYSICAL FITNESS)	0	2	1	2
Required in school	CHINESE(II)	2	2	1	2
Required in school	PHYSICAL EDUCATION(3)	0	2	2	1
Required in school	HISTORICAL THINKING	2	2	2	1
Required in school	PHYSICAL EDUCATION(4)	0	2	2	2
Required in school	DEMOCRACY AND LAW	2	2	2	2
Major Required	GENERAL PHYSICS (1)	3	3	1	1
Major Required	LOGIC DESIGN	3	3	1	1
Major Required	IUTRODUCTION TO ELECTRICAL AND INFORMATION ENGINEERING	2	2	1	1
Major Required	PROGRAM DESIGN AND EXPERIMENT(1)	1	3	1	1
Major Required	CALCULUS(1)	3	3	1	1
Major Required	ELECTRIC CIRCUIT(1)	3	3	1	2
Major Required	GENERAL PHYSICS(2)	3	3	1	2
Major Required	PROGRAM DESIGN AND EXPERIMENT(2)	1	3	1	2
Major Required	CALCULUS(2)	3	3	1	2
Major Required	LINEAR ALGEBRA	3	3	2	1
Major Required	MICRO-ELECTRONICS(1)	3	3	2	1
Major Required	ELECTRIC CIRCUIT(2)	3	3	2	1
Major Required	ENGINEERING MATHEMATICS(1)	3	3	2	1
Major Required	SIGNALS AND SYSTEMS	3	3	2	2
Major Required	MICRO-ELECTRONICS(2)	3	3	2	2
Major Required	ELECTROMAGNETICS(1)	3	3	2	2
Major Required	ENGINEERING MATHEMATICS(2)	3	3	2	2
Major Required	MICRO-ELECTRONICS LAB(1)	1	3	2	2
Major Required	ELECTROMAGNETICS(2)	3	3	3	1
Major Required	SPECIAL TOPIC RESEARCH(1)	1	3	3	1
Major Required	PRINCIPLES OF MICROCOMPUTER	2	2	3	1
Major Required	MICROCOMPUTER LAB	1	3	3	1
Major Required	MICRO-ELECTRONICS LAB(2)	1	3	3	1
Major Required	SPECIAL TOPIC RESEARCA(2)	1	3	3	2
Major Electives	GENERAL CHEMISTRY	3	3	1	1
Major Electives	A GUIDE TO ENGINEERING ENGLISH (I)	1	1	1	1
Major Electives	PHYSICS LAB(1)	1	3	1	1
Major Electives	INTRODUCTION TO COMPUTER NETWORK	3	3	1	2

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	LOGIC DESIGN LAB	1	3	1	2
Major Electives	A GUIDE TO ENGINEERING ENGLISH (II)	1	1	1	2
Major Electives	PHYSICS LAB(2)	1	3	1	2
Major Electives	MODERN PHYSICS	3	3	2	1
Major Electives	COMPUTER GRAPHICAL CONTROL AND ROBOT	3	3	2	1
Major Electives	DIGITAL CIRCUITS DESIGN WITH HDL	3	3	2	1
Major Electives	INTRODUCTION TO MECHATRONIC SYSTEMS	3	3	2	1
Major Electives	INTRODUCTION TO SEMICONDUCTORS	3	3	2	1
Major Electives	INTRODUCTION OF DISPLAY TECHNOLOGIES	3	3	2	1
Major Electives	INDUSTRIAL ELECTRONICS	3	3	2	2
Major Electives	STOCHASTIC PROCESSES	3	3	2	2
Major Electives	INTRODUCTION TO MATERIALS SCIENCE	3	3	2	2
Major Electives	VECTOR ANALYSIS	3	3	2	2
Major Electives	INTRODUCTION TO PYTHON PROGRAMMING AND ARTIFICIAL INTELLIGENCE	3	3	2	2
Major Electives	PROGRAMMABLE CONTROLLER AND LAB	1	3	2	2
Major Electives	POWER ELECTRONICS	3	3	3	1
Major Electives	ELECTROMAGNETICS	3	3	3	1
Major Electives	NUMERICAL ANALYSIS	3	3	3	1
Major Electives	OPTIMIZATION TECHNOLOGY	3	3	3	1
Major Electives	ELECTRIC MACHINERY (1)	3	3	3	1
Major Electives	SOLID STATE PHYSICS	3	3	3	1
Major Electives	CONTROL SYSTEM	3	3	3	1
Major Electives	INTRODUCTION TO IC DESIGN	3	3	3	1
Major Electives	ELECTRONIC MATERIALS	3	3	3	1
Major Electives	ANALOG CIRCUITS DESIGN	3	3	3	1
Major Electives	COMMUNICATION LAB	1	3	3	1
Major Electives	COMMUNICATION THEORY	3	3	3	1
Major Electives	Fundamental Image Processing and Computer Vision	3	3	3	1
Major Electives	INTELLIGENT CARE SYSTEM	3	3	3	1
Major Electives	MATLAB FOR ENGINEERING APPLICATIONS	3	3	3	1
Major Electives	ROBOT OPERATING SYSTEM	3	3	3	1
Major Electives	BASIC IMAGE PROCESSING LAB	1	3	3	1
Major Electives	MATLAB FOR ENGINEERING APPLICATIONS LAB	1	3	3	1
Major Electives	POWER DISTRIBUTION DESIGN	3	3	3	2
Major Electives	MICROPROCESSOR INTERFACE	3	3	3	2
Major Electives	ELECTRIC MOTOR DRIVES	3	3	3	2
Major Electives	ELECTROMAGNETIC WAVE	3	3	3	2
Major Electives	DIGITAL CONTROL	3	3	3	2
Major Electives	DATA STRUCTURE	3	3	3	2
Major Electives	PROBABILITY AND STATISTICS	3	3	3	2
Major Electives	DIGITAL IMAGE PROCESSING	3	3	3	2

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	COMPUTER ARCHITECTURE	3	3	3	2
Major Electives	SENSOR AND TRANSDUCER	3	3	3	2
Major Electives	SWITCHING POWER SUPPLY	3	3	3	2
Major Electives	DYNAMICAL SYSTEMS ANALYSIS	3	3	3	2
Major Electives	ROBOTICS	3	3	3	2
Major Electives	POWER SYSTEMS	3	3	3	2
Major Electives	ELECTRIC MACHINERY(2)	3	3	3	2
Major Electives	PRACTICAL DESIGN OF ELECTRONIC CIRCUITS	3	3	3	2
Major Electives	OPERATION RESEARCH	3	3	3	2
Major Electives	INTRODUCTION TO POWER QUALITY	3	3	3	2
Major Electives	COMPUTER-AIDED ANALYSIS OF ELECTROMAGNETICS LAB	1	3	3	2
Major Electives	POWER SYSTEMS LAB	1	3	3	2
Major Electives	APPLICATIONS OF FIXED-POINT DSP ON POWER CONVERTERS	3	3	3	2
Major Electives	DIGITAL COMMUNICATIONS	3	3	3	2
Major Electives	POWER ELECTRONICS LAB	1	3	3	2
Major Electives	MODERN CONTROL	3	3	3	2
Major Electives	ELECTRIC MOTOR DRIVES LAB	1	3	3	2
Major Electives	ELECTRIC MACHINERY ANALYSIS AND SIMULATION	3	3	3	2
Major Electives	AC AND DC SERVO SYSTEM	3	3	3	2
Major Electives	DISTRIBUTED POWER GENERATION SYSTEM	3	3	3	2
Major Electives	CONTROL SYSTEM LAB	1	3	3	2
Major Electives	PRINCIPLES OF BIOMEDICAL ENGINEERING	3	3	3	2
Major Electives	CLINICAL APPLICATION OF BIOMEDICAL IMAGING SYSTEM	3	3	3	2
Major Electives	INSPECTION AND TESTING OF POWER DISTRIBUTION EQUIPMENT	3	3	3	2
Major Electives	APPLICATIONS AND EXPERIMENT OF IOT	3	3	3	2
Major Electives	ELECTRIC MACHINERY LAB(1)	1	3	3	2
Major Electives	DIGITAL SIGNAL PROCESSING LAB	1	3	3	2
Major Electives	LECTURES ON ELECTRICAL TECHNOLOGY AND ETHICS	3	3	3	2
Major Electives	OPTOELECTRONIC MATERIAL	3	3	3	2
Major Electives	MIRCRO CONTROLLER DESIGN LAB	1	3	3	2
Major Electives	HIGH-VOLTAGE TECHNIQUE	3	3	3	2
Major Electives	FUZZY CONTROL	3	3	4	1
Major Electives	ARTIFICIAL NEURAL NETWORK	3	3	4	1
Major Electives	DIGITAL SIGNAL PROCESSING	3	3	4	1
Major Electives	DISCRETE MATHEMATICS	3	3	4	1
Major Electives	ENERGY APPLICATIONS	3	3	4	1
Major Electives	AC SERVO MOTOR CONTROL	3	3	4	1
Major Electives	MICROPROCESSOR SYSTEM DESIGN	3	3	4	1
Major Electives	POWER CONVERTORS CONTROL	3	3	4	1
Major Electives	HIGH-VOLTAGE ENGINEERING	3	3	4	1
Major Electives	FLEXIBLE AC TRANSMISSION SYSTEMS	3	3	4	1

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	ENGINEERING ECONOMICS	3	3	4	1
Major Electives	FUZZY SYSTEMS	3	3	4	1
Major Electives	COLOR TECHNOLOGY AND APPLICATIONS	3	3	4	1
Major Electives	INTRODUCTION TO EMBEDDED SYSTEM DESIGN	3	3	4	1
Major Electives	RF CIRCUIT DESIGN	3	3	4	1
Major Electives	POWER SYSTEMS OPERATION	3	3	4	1
Major Electives	HIGH-VOLTAGE ENGINEERING LAB	1	3	4	1
Major Electives	DIGITAL CONTROL LAB	1	3	4	1
Major Electives	DESIGN OF POWER MANAGEMENT ICS	3	3	4	1
Major Electives	EMBEDDED SYSTEMS	3	3	4	1
Major Electives	INTRODUCTION TO ULTRASONIC ENGINEERING	3	3	4	1
Major Electives	INTRODUCTION TO COMMUNICATION	3	3	4	1
Major Electives	MICROWAVE ENGINEERING	3	3	4	1
Major Electives	APPLIED ENGINEERING MATHEMATICS	3	3	4	1
Major Electives	VIRTUAL INSTRUMENT TECHNIQUE(1)	3	3	4	1
Major Electives	POWER CONVERTER SIMULATION AND ANALYSIS	3	3	4	1
Major Electives	SOLAR ENERGY POWER CONVERT TECHNIQUE	3	3	4	1
Major Electives	ELECTROMAGNETIC DEVICES ANALYSIS AND DESIGN	3	3	4	1
Major Electives	DSP THEORY AND LAB	3	3	4	1
Major Electives	ADVANCED BIOMEDICAL IMAGE PROCESSING SYSTEM	3	3	4	1
Major Electives	INFORMATION THEORY AND ITS APPLICATION	3	3	4	1
Major Electives	PRACTICUM OF OUTSIDE SCHOOL(1)	3	12	4	1
Major Electives	ELECTRIC MACHINERY LAB(2)	1	3	4	1
Major Electives	SMART MANUFACTURING TECHNOLOGY	3	3	4	1
Major Electives	INTERNET OF THINGS FOR INDUSTRY	3	3	4	1
Major Electives	PROBLEM ANALYSIS AND SOLVING	3	3	4	1
Major Electives	LIGHTING DESIGN ANALYSIS	3	3	4	1
Major Electives	SPECIAL TOPIC RESEARCH(3)	1	3	4	1
Major Electives	ELECTRIC MACHINERY DESIGN	3	3	4	2
Major Electives	VARIABLE STRUCTURE CONTROL	3	3	4	2
Major Electives	INTRODUCTION TO ANTENNA	3	3	4	2
Major Electives	ADVANCED ELECTRIC MACHINERY	3	3	4	2
Major Electives	INDUSTRIAL INSTRUMENT	3	3	4	2
Major Electives	AC SERVO MOTOR CONTROL LAB	1	3	4	2
Major Electives	POWER SUPERVISION AND CONTROL	3	3	4	2
Major Electives	CONVERSION OF REGENERATIVE ENERGY	3	3	4	2
Major Electives	ELECTROMAGNETIC INTERFERENCE AND COMPLIMENT	3	3	4	2
Major Electives	INTRODUCTION TO MICROELECTROMECHANICAL SYSTEMS	3	3	4	2
Major Electives	INTELLIGENT CONTROL SYSTEMS	3	3	4	2
Major Electives	INTRODUCTION TO NONLINEAR SYSTEMS	3	3	4	2
Major Electives	FLOATING-POINT DIGITAL SIGNAL PROCESSORS AND THEIR APPLICATIONS	3	3	4	2

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	INTRODUCTION TO SOC DESIGN	3	3	4	2
Major Electives	SEMICONDUCTOR DEVICES AND PHYSICS	3	3	4	2
Major Electives	CONTROL OF POWER CONVERTER BASED ON DSP	3	3	4	2
Major Electives	SEMICONDUCTOR MANUFACTURING TECHNOLOGY	3	3	4	2
Major Electives	INTRODUCTION TO ELECTRICITY DEREGULATION	3	3	4	2
Major Electives	APPLIED CALCULUS	3	3	4	2
Major Electives	VIRTUAL INSTRUMENT TECHNIQUE (2)	3	3	4	2
Major Electives	OPTOELECTRIC SEMICONDUCTOR DEVICE AND PROCESS	3	3	4	2
Major Electives	SOLAR CELL	3	3	4	2
Major Electives	ULTRASOUND IN MEDICINE	3	3	4	2
Major Electives	PRACTICUM OF OUTSIDE SCHOOL(2)	3	12	4	2
Major Electives	STRUCTURE, CHARACTERISTICS, AND MEASURING/TESTING OF LITHIUM BATTERIES	3	3	4	2
Major Electives	INTRODUCTION OF ELECTRIC VEHICLES	3	3	4	2
Major Electives	POWER SYSTEM SOFTWARE ANALYSIS FOR INDUSTRIAL POWER DISTRIBUTION SYSTEM	3	3	4	2
Major Electives	HUMAN-COMPUTER INTERACTION FOR USER EXPERIENCE DESIGN	3	3	4	2
Major Electives	POWER SYSTEM SOFTWARE ANALYSIS FOR SOLAR	3	3	4	2
Major Electives	ENTREPRENEURSHIP MANAGEMENT	3	3	4	2
Major Electives	PATENT ANALYSIS	3	3	4	2

Graduation qualification :

Graduation Credits: 128 credits

University Required: 16 credits

Major Department Required: 56 credits

College Elective: 2 credits

Major Department Elective: 30 credits

Liberal Arts Core Courses: 6 credits

Liberal Arts Elective Courses: 6 credits

Interdisciplinary Credits: 9 credits

Remaining Credits: 3 credits

1. Graduates must pass the English proficiency test as specified in 1.Article 68 of the university's academic regulations.
2. The National Defense Education and Training course is worth a maximum of 2 credits for graduation.
3. Students must complete at least 3 elective laboratory courses offered by their department (excluding college electives) before graduation.
4. Students must complete the Academic Research Ethics Education course in accordance with the "Implementation Guidelines for Academic Research Ethics Education Courses for Students of National United University".
5. Self-directed learning courses are awarded through lectures or activities. Students must complete at least one credit in various self-directed learning courses before graduation. One hour of lecture time is counted as 0.05 credits, i.e., two hours count as 0.1 credits. A single course has a maximum count of four hours. Accumulated credits of one hour are recognized as self-directed learning course credits.

4 Year Curriculum of Electro-Optical Engineering (D)

P6-P10

Subject type	Subject type	Credit	Hours	grade	semester
Required in school	FRESHMAN ENGLISH(1)	3	3	1	1
Required in school	PHYSICAL EDUCATION(SWIMMING FOR BEGINNERS)	0	2	1	1
Required in school	NAVIGATING COLLEGE	1	1	1	1
Required in school	SELF-DIRECTED LEARNING	1	1	1	1
Required in school	CHINESE(I)	2	2	1	1
Required in school	FRESHMAN ENGLISH(2)	3	3	1	2
Required in school	PHYSICAL EDUCATION(PHYSICAL FITNESS)	0	2	1	2
Required in school	CHINESE(II)	2	2	1	2
Required in school	PHYSICAL EDUCATION(3)	0	2	2	1
Required in school	HISTORICAL THINKING	2	2	2	1
Required in school	PHYSICAL EDUCATION(4)	0	2	2	2
Required in school	DEMOCRACY AND LAW	2	2	2	2
Major Required	PHYSICS(1)	3	3	1	1
Major Required	LOGIC DESIGN	3	3	1	1
Major Required	FUNDAMENTALS OF MATHEMATICS	3	3	1	1
Major Required	CALCULUS(1)	3	3	1	1
Major Required	ELECTRIC CIRCUIT(1)	3	3	1	2
Major Required	PHYSICS(2)	3	3	1	2
Major Required	PROGRAM DESIGN AND EXPERIMENT(1)	1	3	1	2
Major Required	CALCULUS(2)	3	3	1	2
Major Required	LINEAR ALGEBRA	3	3	2	1
Major Required	MICRO-ELECTRONICS(1)	3	3	2	1
Major Required	ELECTRIC CIRCUIT(2)	3	3	2	1
Major Required	PROGRAM DESIGN AND EXPERIMENT(2)	1	3	2	1
Major Required	ENGINEERING MATHEMATICS(1)	3	3	2	1
Major Required	MICRO-ELECTRONICS(2)	3	3	2	2
Major Required	PRINCIPLES OF MICROCOMPUTER	2	2	2	2
Major Required	MICROCOMPUTER LAB	1	3	2	2
Major Required	ENGINEERING MATHEMATICS(2)	3	3	2	2
Major Required	MICRO-ELECTRONICS LAB(1)	1	3	2	2
Major Required	SIGNALS AND SYSTEMS	3	3	3	1
Major Required	SPECIAL TOPICS(1)	1	3	3	1
Major Required	MICRO-ELECTRONICS LAB(2)	1	3	3	1
Major Required	SPECIAL TOPICS(2)	1	3	3	2
Major Electives	INTRODUCTION TO ELECTRICAL AND INFORMATION ENGINEERING	2	2	1	1
Major Electives	LOGIC DESIGN LAB	1	3	1	1
Major Electives	GENERAL CHEMISTRY	3	3	1	1
Major Electives	A GUIDE TO ENGINEERING ENGLISH (I)	1	1	1	1
Major Electives	INTRODUCTION TO COMPUTER NETWORK	3	3	1	2
Major Electives	A GUIDE TO ENGINEERING ENGLISH (II)	1	1	1	2

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	PHYSICS LAB(1)	1	3	1	2
Major Electives	INDUSTRIAL ELECTRONICS	3	3	2	1
Major Electives	MODERN PHYSICS	3	3	2	1
Major Electives	STOCHASTIC PROCESSES	3	3	2	1
Major Electives	COMPUTER GRAPHICAL CONTROL AND ROBOT	3	3	2	1
Major Electives	DIGITAL CIRCUITS DESIGN WITH HDL	3	3	2	1
Major Electives	INTRODUCTION TO MECHATRONIC SYSTEMS	3	3	2	1
Major Electives	INTRODUCTION TO SEMICONDUCTORS	3	3	2	1
Major Electives	INTRODUCTION OF DISPLAY TECHNOLOGIES	3	3	2	1
Major Electives	COMPUTER ARCHITECTURE	3	3	2	2
Major Electives	SENSOR AND TRANSDUCER	3	3	2	2
Major Electives	NUMERICAL ANALYSIS	3	3	2	2
Major Electives	ELECTRIC MACHINERY (1)	3	3	2	2
Major Electives	INTRODUCTION TO MATERIALS SCIENCE	3	3	2	2
Major Electives	VECTOR ANALYSIS	3	3	2	2
Major Electives	INTRODUCTION TO PYTHON PROGRAMMING AND ARTIFICIAL INTELLIGENCE	3	3	2	2
Major Electives	PROGRAMMABLE CONTROLLER AND LAB	1	3	2	2
Major Electives	POWER DISTRIBUTION DESIGN	3	3	3	1
Major Electives	MICROPROCESSOR INTERFACE	3	3	3	1
Major Electives	ELECTRIC MOTOR DRIVES	3	3	3	1
Major Electives	PROBABILITY AND STATISTICS	3	3	3	1
Major Electives	POWER ELECTRONICS	3	3	3	1
Major Electives	ELECTROMAGNETICS	3	3	3	1
Major Electives	OPTIMIZATION TECHNOLOGY	3	3	3	1
Major Electives	POWER SYSTEMS	3	3	3	1
Major Electives	ELECTRIC MACHINERY(2)	3	3	3	1
Major Electives	OPERATION RESEARCH	3	3	3	1
Major Electives	SOLID STATE PHYSICS	3	3	3	1
Major Electives	CONTROL SYSTEM	3	3	3	1
Major Electives	ELECTRONIC MATERIALS	3	3	3	1
Major Electives	ANALOG CIRCUITS DESIGN	3	3	3	1
Major Electives	COMMUNICATION LAB	1	3	3	1
Major Electives	PRINCIPLES OF BIOMEDICAL ENGINEERING	3	3	3	1
Major Electives	Fundamental Image Processing and Computer Vision	3	3	3	1
Major Electives	INTELLIGENT CARE SYSTEM	3	3	3	1
Major Electives	ELECTRIC MACHINERY LAB(1)	1	3	3	1
Major Electives	LECTURES ON ELECTRICAL TECHNOLOGY AND ETHICS	3	3	3	1
Major Electives	OPTOELECTRONIC MATERIAL	3	3	3	1
Major Electives	ROBOT OPERATING SYSTEM	3	3	3	1
Major Electives	BASIC IMAGE PROCESSING LAB	1	3	3	1
Major Electives	MATLAB FOR ENGINEERING APPLICATIONS LAB	1	3	3	1

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	ELECTROMAGNETIC WAVE	3	3	3	2
Major Electives	DIGITAL CONTROL	3	3	3	2
Major Electives	DIGITAL SIGNAL PROCESSING	3	3	3	2
Major Electives	SWITCHING POWER SUPPLY	3	3	3	2
Major Electives	DYNAMICAL SYSTEMS ANALYSIS	3	3	3	2
Major Electives	AC SERVO MOTOR CONTROL	3	3	3	2
Major Electives	MICROPROCESSOR SYSTEM DESIGN	3	3	3	2
Major Electives	PRACTICAL DESIGN OF ELECTRONIC CIRCUITS	3	3	3	2
Major Electives	HIGH-VOLTAGE ENGINEERING	3	3	3	2
Major Electives	INTRODUCTION TO POWER QUALITY	3	3	3	2
Major Electives	COMPUTER-AIDED ANALYSIS OF ELECTROMAGNETICS LAB	1	3	3	2
Major Electives	POWER SYSTEMS LAB	1	3	3	2
Major Electives	APPLICATIONS OF FIXED-POINT DSP ON POWER CONVERTERS	3	3	3	2
Major Electives	DIGITAL COMMUNICATIONS	3	3	3	2
Major Electives	POWER ELECTRONICS LAB	1	3	3	2
Major Electives	INTRODUCTION TO IC DESIGN	3	3	3	2
Major Electives	MODERN CONTROL	3	3	3	2
Major Electives	ELECTRIC MOTOR DRIVES LAB	1	3	3	2
Major Electives	ELECTRIC MACHINERY ANALYSIS AND SIMULATION	3	3	3	2
Major Electives	AC AND DC SERVO SYSTEM	3	3	3	2
Major Electives	CONTROL SYSTEM LAB	1	3	3	2
Major Electives	CLINICAL APPLICATION OF BIOMEDICAL IMAGING SYSTEM	3	3	3	2
Major Electives	INSPECTION AND TESTING OF POWER DISTRIBUTION EQUIPMENT	3	3	3	2
Major Electives	APPLICATIONS AND EXPERIMENT OF IOT	3	3	3	2
Major Electives	ELECTRIC MACHINERY LAB(2)	1	3	3	2
Major Electives	DIGITAL SIGNAL PROCESSING LAB	1	3	3	2
Major Electives	SMART MANUFACTURING TECHNOLOGY	3	3	3	2
Major Electives	MATLAB FOR ENGINEERING APPLICATIONS	3	3	3	2
Major Electives	MIRCRO CONTROLLER DESIGN LAB	1	3	3	2
Major Electives	HIGH-VOLTAGE TECHNIQUE	3	3	3	2
Major Electives	DATA STRUCTURE	3	3	4	1
Major Electives	FUZZY CONTROL	3	3	4	1
Major Electives	ARTIFICIAL NEURAL NETWORK	3	3	4	1
Major Electives	DISCRETE MATHEMATICS	3	3	4	1
Major Electives	INDUSTRIAL INSTRUMENT	3	3	4	1
Major Electives	ENERGY APPLICATIONS	3	3	4	1
Major Electives	ROBOTICS	3	3	4	1
Major Electives	POWER SUPERVISION AND CONTROL	3	3	4	1
Major Electives	POWER CONVERTORS CONTROL	3	3	4	1
Major Electives	CONVERSION OF REGENERATIVE ENERGY	3	3	4	1
Major Electives	FLEXIBLE AC TRANSMISSION SYSTEMS	3	3	4	1

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	FUZZY SYSTEMS	3	3	4	1
Major Electives	INTRODUCTION TO EMBEDDED SYSTEM DESIGN	3	3	4	1
Major Electives	RF CIRCUIT DESIGN	3	3	4	1
Major Electives	POWER SYSTEMS OPERATION	3	3	4	1
Major Electives	HIGH-VOLTAGE ENGINEERING LAB	1	3	4	1
Major Electives	DIGITAL CONTROL LAB	1	3	4	1
Major Electives	EMBEDDED SYSTEMS	3	3	4	1
Major Electives	CONTROL OF POWER CONVERTER BASED ON DSP	3	3	4	1
Major Electives	INTRODUCTION TO ULTRASONIC ENGINEERING	3	3	4	1
Major Electives	INTRODUCTION TO COMMUNICATION	3	3	4	1
Major Electives	MICROWAVE ENGINEERING	3	3	4	1
Major Electives	APPLIED ENGINEERING MATHEMATICS	3	3	4	1
Major Electives	VIRTUAL INSTRUMENT TECHNIQUE(1)	3	3	4	1
Major Electives	POWER CONVERTER SIMULATION AND ANALYSIS	3	3	4	1
Major Electives	SOLAR ENERGY POWER CONVERT TECHNIQUE	3	3	4	1
Major Electives	SOLAR CELL	3	3	4	1
Major Electives	ELECTROMAGNETIC DEVICES ANALYSIS AND DESIGN	3	3	4	1
Major Electives	COMMUNICATION THEORY	3	3	4	1
Major Electives	DSP THEORY AND LAB	3	3	4	1
Major Electives	ADVANCED BIOMEDICAL IMAGE PROCESSING SYSTEM	3	3	4	1
Major Electives	INFORMATION THEORY AND ITS APPLICATION	3	3	4	1
Major Electives	PRACTICUM OF OUTSIDE SCHOOL(1)	3	12	4	1
Major Electives	LIGHTING DESIGN ANALYSIS	3	3	4	1
Major Electives	SPECIAL TOPICS(3)	1	3	4	1
Major Electives	ELECTRIC MACHINERY DESIGN	3	3	4	2
Major Electives	DIGITAL IMAGE PROCESSING	3	3	4	2
Major Electives	VARIABLE STRUCTURE CONTROL	3	3	4	2
Major Electives	INTRODUCTION TO ANTENNA	3	3	4	2
Major Electives	ADVANCED ELECTRIC MACHINERY	3	3	4	2
Major Electives	AC SERVO MOTOR CONTROL LAB	1	3	4	2
Major Electives	ELECTROMAGNETIC INTERFERENCE AND COMPLIMENT	3	3	4	2
Major Electives	INTRODUCTION TO MICROELECTROMECHANICAL SYSTEMS	3	3	4	2
Major Electives	ENGINEERING ECONOMICS	3	3	4	2
Major Electives	INTELLIGENT CONTROL SYSTEMS	3	3	4	2
Major Electives	INTRODUCTION TO NONLINEAR SYSTEMS	3	3	4	2
Major Electives	FLOATING-POINT DIGITAL SIGNAL PROCESSORS AND THEIR APPLICATIONS	3	3	4	2
Major Electives	COLOR TECHNOLOGY AND APPLICATIONS	3	3	4	2
Major Electives	INTRODUCTION TO SOC DESIGN	3	3	4	2
Major Electives	SEMICONDUCTOR DEVICES AND PHYSICS	3	3	4	2
Major Electives	DESIGN OF POWER MANAGEMENT ICs	3	3	4	2
Major Electives	SEMICONDUCTOR MANUFACTURING TECHNOLOGY	3	3	4	2

Subject type	Subject type	Credit	Hours	grade	semester
Major Electives	INTRODUCTION TO ELECTRICITY DEREGULATION	3	3	4	2
Major Electives	APPLIED CALCULUS	3	3	4	2
Major Electives	VIRTUAL INSTRUMENT TECHNIQUE (2)	3	3	4	2
Major Electives	DISTRIBUTED POWER GENERATION SYSTEM	3	3	4	2
Major Electives	OPTOELECTRIC SEMICONDUCTOR DEVICE AND PROCESS	3	3	4	2
Major Electives	ULTRASOUND IN MEDICINE	3	3	4	2
Major Electives	PRACTICUM OF OUTSIDE SCHOOL(2)	3	12	4	2
Major Electives	INTERNET OF THINGS FOR INDUSTRY	3	3	4	2
Major Electives	STRUCTURE, CHARACTERISTICS, AND MEASURING/TESTING OF LITHIUM BATTERIES	3	3	4	2
Major Electives	INTRODUCTION OF ELECTRIC VEHICLES	3	3	4	2
Major Electives	PROBLEM ANALYSIS AND SOLVING	3	3	4	2
Major Electives	HUMAN-COMPUTER INTERACTION FOR USER EXPERIENCE DESIGN	3	3	4	2
Major Electives	POWER SYSTEM SOFTWARE ANALYSIS FOR SOLAR	3	3	4	2
Major Electives	ENTREPRENEURSHIP MANAGEMENT	3	3	4	2
Major Electives	PATENT ANALYSIS	3	3	4	2

Graduation qualification :

Graduation Credits: 128 credits

University Required: 16 credits

Major Department Required: 51 credits

College Elective: 2 credits

Major Department Elective: 35 credits

Liberal Arts Core Courses: 6 credits

Liberal Arts Elective Courses: 6 credits

Interdisciplinary Credits: 9 credits

Remaining Credits: 3 credits

1. Graduates must pass the English proficiency test as specified in 1.Article 68 of the university's academic regulations.
2. The National Defense Education and Training course is worth a maximum of 2 credits for graduation.
3. Students must complete at least 3 elective laboratory courses offered by their department (excluding college electives) before graduation.
4. Students must complete at least two courses in Electrical Systems, Control Systems, Power Electronics, or Electrical Engineering (I) before graduation.
5. Students must complete at least two courses in "Mathematics and Basic Sciences" before graduation, such as: Introduction to Electrical and Computer Engineering, Introduction to Computer Networks, Stochastic Programming, Vector Analysis, Probability and Statistics, Numerical Analysis, Electromagnetism, Discrete Mathematics, Operational Research, and Optimization Techniques.
6. Students must complete the Academic Research Ethics Education course in accordance with the "Implementation Guidelines for Academic Research Ethics Education Courses for Students of National United University".
7. Self-directed learning courses are awarded through lectures or activities. Students must complete at least one credit in various self-directed learning courses before graduation. One hour of lecture time is counted as 0.05 credits, i.e., two hours count as 0.1 credits. A single course has a maximum count of four hours. Accumulated credits of one hour are recognized as self-directed learning course credits.