Programme Specifications

Academic Year	(2019-2010) Academic Year
Programme Title	Electronic Engineering
Award	Bachelor of Engineering (BE)
Programme Code	EcE
Degree Awarding Institution	Technological University (Kyaukse)
Associateship, Membership	N/A
Accreditation status and Accreditors	Provisional, Engineering Education Accreditation Committee (EEAC, Myanmar)
Qualification Level (Myanmar National Qualification Framework)	Level 6
Degree Awarding Requirements	Student must pass 229 credits and obtain passing score in every subject
Department	Department of Electronic Engineering
Head of Programme	Dr. Hnin Thae Mon
Contact	09-765432824, ecdepartmentkse@gmail.com
Admission Criteria	As described in admission section
Requirements for sitting exam	see in each course specification
Subject Benchmark	N/A
Mode of Attendance	Full Time
Total Credits	229
Minimum Period of Study	6 years
Maximum period of study	18 years
Teaching/Learning Methods	Combination of lectures, tutorials, practical, assignments, computer applications, demonstration, individual and group work, projects, industrial trainings
Assessment	written examinations, tests, reports, oral presentations, projects, project seminars

Programme Overview	Electronic engineering plays a vital role in today's technology advancements. Its main purpose is to benefit the society. Its scope covers a wide range because most of the modern technologies stem from the Electronic engineering. In Technological University (Kyaukse), Electronic engineering programme provides students with the fields of communications, control, electronics, RF & microwave, computer-related applications, embedded technology and signal processing. Industrial trainings and projects are the parts of the programme. It offers students by the combination and theory and hands-on activities. The programme aims to produce competent Electronic engineers who can contribute to the benefits of the society.
Graduate Competencies	1. Ability to apply Engineering Knowledge 2. Problem Analysis Skill 3. Design/Development Skill 4. Investigation/Research Skill 5. Modern Tool Usage Skill 6. Ability to apply Reasoning and Professional Engineering Practice 7. Ability to understand and evaluate Environment and Sustainability 8. Ability to apply Ethical Principles 9. Communication Skill 10. Individual and Team Work Skill 11. Life Long Learning Skill 12. Ability to demonstrate knowledge of Management Principles

Programme Educational Objectives

1. Apply the engineering knowledge and skills, complex problem solving skills and critical thinking in professional engineering practices.
2. Adopt ethical and moral behavior and exhibit effective skills in communication, management, teamwork and leadership qualities.
3. Engage in life-long learning of Electronic Engineering to attain professional excellence and also in other allied fields.

Graduate Attributes

1. An ability to apply the knowledge of mathematics, sciences, and fundamentals of electronic engineering to the solution of complex engineering problems;
2. An ability to identify, formulate and solve complex electronic engineering problems;
3. An ability to design solutions for complex electronic engineering problems and design systems, components or processes to meet desired needs within realistic constraints such as environmental, societal and safety consideration;
4. An ability to conduct investigation into complex electronic engineering problems using research-based knowledge and research methods including design of experiments, analysis, interpretation and synthesis of data to give proper conclusions;
5. An ability to employ necessary techniques, hardware and software tools for electronic engineering applications;
6. An ability to apply the contextual knowledge to assess societal, health, safety and cultural issues and endure the consequent responsibilities relevant to the professional engineering practice;
7. An ability to understand the significance of sustainable development and impact of professional engineering solutions in societal and environmental contents;
8. An ability to apply the professional and ethical responsibility;
9. An ability to communicate effectively in both oral and written form on complex engineering activities with the engineering community and with society at large;
10. An ability to function effectively as an individual and as a multidisciplinary team;
11. An ability to recognize the needs for and to engage in life-long learning;
12. An ability to demonstrate and apply electronic engineering and management principles in multidisciplinary environment.

Curriculum

Year I

Semester I

Code		Title	Credits
M	11011	Myanmar I	2
E	11011	English I	2.5
EM	11011	Engineering Mathematics I	4.5
E.Ch	11011	Engineering Chemistry I	3.5
E.Ph.	11011	Engineering Physics I	3.5
ME	11011	Basic Engineering Drawing I	2
EcE	11011	Fundamental of Electronic Circuits I	2.5

Semester II

Code		Title	Credits
M	12011	Myanmar II	2
E	12011	English II	2.5
EM	12011	Engineering Mathematics II	4.5
E.Ch.	12011	Engineering Chemistry II	3.5
E.Ph.	12011	Engineering Physics II	3.5
ME	12011	Basic Engineering Drawing II	2
EcE	12011	Fundamental of Electronic Circuits II	2.5

Year II

Semester I

Code		Title	Credits
E	21011	English	2.5
EM	21013	Engineering Mathematics III	4.5
EM	21002	Communication Principles I	2.5
EcE	21001	Electronic Engineering Circuit I	3
EcE	21021	Digital Electronics I	2.5
EcE	21011	Microelectronics I	3
EcE	21014	Technical Programming I	3

Semester II

Code		Title	Credits
E	22011	English	2.5
EM	22013	Engineering Mathematics IV	4.5
EM	22002	Communication Principles II	2.5
EcE	22001	Electronic Engineering Circuit II	3
EcE	22021	Digital Electronics II	2.5
EcE	22011	Microelectronics II	3
EcE	22014	Technical Programming II	3

YearIII

Semester I

Code		Title	Credits
E	31011	English	2.5
EM	31015	Engineering Mathematics V	4.5
EcE	31001	Engineering Circuit Analysis I	3.5
EcE	31002	Digital Communication I	3
EcE	31011	Engineering Electromagnetic I	2.5
EcE	31021	Integrated Electronics I	3
EcE	31003	Modeling and Control I	3

Semester II

Code		Title	Credits
E	32011	English	2.5
EM	32015	Engineering Mathematics VI	4.5
EcE	32001	Engineering Circuit Analysis II	3.5
EcE	32002	Digital Communication II	3
EcE	32011	Engineering Electromagnetic II	2.5
EcE	32021	Integrated Electronics II	3
EcE	32003	Modeling and Control II	3

Year IV

Semester I

Code		Title	Credits
E	41011	English	2.5
EM	41016	Engineering Mathematics	4.5

Semester II

Code		Title	Credits
E	42011	English	2.5
EM	42016	Engineering Mathematics VIII	4.5

		VII					
EcE	41002	Computer Communication I	3	EcE	42002	Computer Communication II	3
EcE	41021	Digital Design with HDL I	3	EcE	42021	Digital Design with HDL II	3
EcE	41003	Modern Control System I	3	EcE	42003	Modern Control System II	3
EcE	41043	Electrical Machines I	2.5	EcE	42043	Electrical Machines II	2.5
EcE	41031	Industrial Electronic & Control I	3	EcE	42031	Industrial Electronic & Control II	3

Year V

Semester I

Code		Title	Credits
EcE	51001	Advanced Electronics	3
EcE	51033	PLC Programming Methods and Techniques	3
EcE	51003	Digital Control System	3
EcE	51005	Digital Signal Processing	3
EcE	51013	Microwave Engineering	3
EcE	51012	Modern Electronic Communication Systems	2.5
EcE	51006	Industrial Management	2.5

Semester II

Code		Title	Credits
EcE	52001	Advanced Electronics	3
EcE	52033	PLC Programming Methods and Techniques	3
EcE	52003	Digital Control System	3
EcE	52005	Digital Signal Processing	3
EcE	52013	Microwave Engineering	3
EcE	52012	Modern Electronic Communication Systems	2.5
EcE	52006	Industrial Management	2.5

YearVI

Semester I

Code		Title	Credits
EcE	61015	Computer Networking	3
HSS	61011	Humanities and Social Science	3
		Industrial Training	4

Semester II

Code	Title	Credits
	Graduation Thesis	9