

**UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA**  
**POSTGRADUATE MODULAR PROGRAMME IN**  
**ELECTRICAL AND ELECTRONIC ENGINEERING**

**JANUARY 2025 ACADEMIC YEAR**

<b>Module No</b>	<b>Module Title</b>	<b>Date</b>	<b>Instructor</b>
EL 575	Power System Planning, Protection and Operations**	27 <sup>th</sup> Jan - 7 <sup>th</sup> Feb, 2025	Mr P. Blewushie
EL 574	Microprocessor Systems**	10 <sup>th</sup> Feb - 21 <sup>st</sup> Feb, 2025	Mr F. Mumuni
EL 407	Probability and Statistics for Engineers*	24 <sup>th</sup> Feb - 7 <sup>th</sup> Mar, 2025	Dr B. Odoi
EL 401	MATLAB/ SIMILINK for Engineers*	10 <sup>th</sup> Mar - 21 <sup>st</sup> Mar, 2025	Dr J. K. Annan
EL 551	Research Methods***	24 <sup>th</sup> Mar - 4 <sup>th</sup> April, 2025	Assoc Prof S. Nunoo
EL 405	Numerical Methods*	7 <sup>th</sup> April - 18 <sup>th</sup> April, 2025	Dr H. Otoo
EL 403	Introduction to Computer Applications*	21 <sup>st</sup> April - 2 <sup>nd</sup> May, 2025	Assoc Prof S. Nunoo
EL 586	Mobile Communication Systems	5 <sup>th</sup> May - 16 <sup>th</sup> May, 2025	Mr E. Addo
EL 576	Power System Modelling, Stability and Control	19 <sup>th</sup> May - 30 <sup>th</sup> May, 2025	Assoc Prof J. C. Attachie
EL 582	Electrical Machines and Power Electronics Drives	2 <sup>nd</sup> June - 13 <sup>th</sup> June, 2025	Mr P. Blewushie
EL 584	Optimal Control Systems	16 <sup>th</sup> June – 27 <sup>th</sup> June, 2025	Dr Alhassan Osman
EL 553	Operations Research	30 <sup>th</sup> June – 11 <sup>th</sup> July, 2025	Dr H. Otoo
EL 580	Wireless Technologies	14 <sup>th</sup> July – 25 <sup>th</sup> July, 2025	Mr S. Ofori
EL 578	Broadcasting Technologies		Prof C. K. Amuzuvi
EL 592	Green Energy and Smart Grid Systems	28 <sup>th</sup> July – 8 <sup>th</sup> Aug, 2025	Dr J. K. Annan
EL 407	Probability and Statistics for Engineers*	11 <sup>th</sup> Aug - 22 <sup>nd</sup> Aug, 2025	Dr B. Odoi
EL 572	Advanced Signal Processing**		Assoc Prof S. Nunoo
EL 401	MATLAB/SIMILINK for Engineer*	25 <sup>th</sup> Aug – 5 <sup>th</sup> Sept, 2025	Dr J. K. Annan
EL 590	Power Systems Optimisation and Economics	8 <sup>th</sup> Sept - 19 <sup>th</sup> Sept, 2025	Assoc Prof J. C. Attachie
EL 551	Research Methods***	22 <sup>nd</sup> Sept – 3 <sup>rd</sup> Oct, 2025	Assoc Prof S. Nunoo
EL 556	Field/Laboratory Work***	6 <sup>th</sup> Oct – 17 <sup>th</sup> Oct, 2025	Mr S. Ofori
EL 405	Numerical Methods*	20 <sup>th</sup> Oct - 31 <sup>st</sup> Oct, 2025	Dr H. Otoo
EL 571	Modelling and Simulation **		Assoc Prof S. Nunoo
EL 577	Microwave Engineering and Optical Communication Systems	3 <sup>rd</sup> Nov - 14 <sup>th</sup> Nov, 2025	Prof C. K. Amuzuvi
EL 573	Artificial Intelligence in Manufacturing**		Mr K. Abakah-Paintsil /Dr. J. K. Annan
EL 560	Engineering Economics**	17 <sup>th</sup> Nov - 28 <sup>th</sup> Nov, 2025	Dr K. Kamasa
EL 403	Introduction to Computer Applications*		Assoc Prof S. Nunoo
EL 579	Computer Control Systems**	1 <sup>st</sup> Dec - 12 <sup>th</sup> Dec, 2025	Dr J. K. Annan
EL 581	Advanced Robotics	15 <sup>th</sup> Dec - 26 <sup>th</sup> Dec, 2025	Mr K. Abakah-Paintsil /Assoc Prof J. C. Attachie
EL 588	Environmental and Safety Engineering		Dr T. Wi-Afedzi
EL 583	Industrial Automation		Assoc Prof S. Nunoo

\* Preparatory/Introductory Module

\*\* Core Module

\*\*\* University Mandatory Module

- N.B. (i) Module Fee: **GH¢ 1000.00** per module for registered Students  
Module Fee: **GH¢ 1300.00** per module for participants (non-registered students)  
Module Fee: **\$ 500.00** per module for foreign participants
- (ii) Registration closes one (1) week before the commencement of the module.

## REQUIREMENTS FOR GRADUATION

### MSC

#### a. Course and Credit Requirements

- i. A minimum of fifty-seven (57) credit hours is required for the award of *MSc* Degree. This is made up of a minimum of seven (7) compulsory modules (at least 21 credit hours) and at least three (3) other modules (electives) which must be selected by the candidate in consultation with his/her supervisor(s), Postgraduate Seminar (3 credit hours), Field/Laboratory Work (3 credit hours) and Thesis (21 credit hours).
- ii. The successful defence of a *thesis* is required for the award of the MSc degree in Electrical and Electronic Engineering. The thesis should be an embodiment of independent research conducted by the student under the guidance of a supervisor(s) on a significant problem in a chosen area of Electrical and Electronic Engineering.

### MPHIL

#### a. Course and Credit Requirements

- i. A minimum of sixty (60) credit hours is required for the award of *MPhil* Degree. This is made up of a minimum of seven (7) compulsory modules (at least 21 credit hours) and at least one (1) other module (elective) which must be selected by the candidate in consultation with his/her supervisor(s), Postgraduate Seminar (3 credit hours), Field/Laboratory Work (3 credit hours) and Thesis (30 credit hours).
- ii. The successful defence of a *thesis* and publication of *at least one (1) technical paper* arising out of the research are required for the award of the MPhil degree in Electrical and Electronic Engineering. The thesis should be an embodiment of independent research conducted by the student under the guidance of a supervisor (s) on a significant problem in a chosen area of Electrical and Electronic Engineering.

### PHD

#### a. Course and Credit Requirements

- i. A minimum of fifty-seven (57) credit hours (45 credit hours for thesis, 6 credit hours for two seminars, 3 credit hours for Research Methods and 3 credit hours for Individual Studies) is required for the award of a PhD degree in Electrical and Electronic Engineering. In addition, he/she may audit modules recommended by the Supervisor (s) to facilitate the student's research work.
- ii. The successful defence of a *thesis* and publication of *at least two (2) technical papers* arising out of the research are required for the award of the PhD degree in Electrical and Electronic Engineering. The thesis should be an embodiment of independent research conducted by the student under the guidance of a supervisor (s) on a significant problem in a chosen area of Electrical and Electronic Engineering.

#### b. Programme Duration

##### MSc/MPhil

Full Time (FT): 2 years	+ 1 year extension	taken in 6 months instalment
Part Time (PT): 3 years	+ 1 year extension	taken in 6 months instalment

##### PhD

FT: 3 years	PT: 4 years	+ 1 year extension	taken in 6 months instalment
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## ASSESSMENT REGULATIONS

- a. Students' Performance and Achievement
- i. Continuous assessment made up of record of attendance to lectures (10%), exercises, quizzes, and Seminars (30%), summing up to a total of **40%**, and
  - ii. End of Semester Examinations (**60%**).

### PASS MARKS

**Table 1: UMaT Grading Scale for MSc Programme**

Module	Raw Score (%)	Interpretation
MSc/MPhil Course Work and MSc/MPhil Thesis	$\geq 50$	Pass
	$< 50$	Fail (F)
	I or I*	Incomplete

*Mode of Certification*

Distinction	-	80% or above
Pass	-	55% or above and less than 80%
Fail	-	below 55%

**Table 2: UMaT Grading Scale for PhD Programme**

Module	Raw Score (%)	Interpretation
PhD Course Work	$\geq 50$	Pass
	$< 50$	Fail (F)
	I or I*	Incomplete
PhD Thesis	$\geq 55$	Pass
	$< 55$	Fail (F)
	I or I*	Incomplete

*Mode of Certification*

Pass	-	55% or above
Fail	-	below 55%