

# Course Structure

## Bachelor of Engineering in Electrical and Electronics Engineering (Hons)

Faculty of Engineering, Science and Technology



### Semester 1

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	EGR101	Introduction to Engineering and practices	Nil	15	2,400
CORE	PHY117	Physics for Engineers	Nil	15	1,725
CORE	MAT135	Engineering Mathematics I	Nil	15	1,725
CORE	DHI113	Dhivehi for Professionals	Nil	15	1,350
<b>Semester Total</b>				<b>60</b>	<b>7,200</b>

### Semester 2

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	ELE131	Electrical and Electronics Principles		15	2,400
CORE	MAT137	Engineering Mathematics II	MAT135	15	1,725
CORE	PHY119	Fundamentals of Semiconductor devices	PHY117	15	1,725
CORE	CPT151	Programming for Engineers		15	1,725
<b>Semester Total</b>				<b>60</b>	<b>7,575</b>

### Semester 3

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	PHY205	Digital circuits 1		15	1,725
CORE	ELE221	Electrical circuits and systems	ELE131	15	2,400
CORE	STA213	Statistics for Engineers	MAT137	15	1,725
CORE	CPT243	Computer Organization and Architecture 1	CPT151	15	1,725
<b>Semester Total</b>				<b>60</b>	<b>7,575</b>

## Semester 4

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	EGR201	Engineering Computations	STA213	15	2,400
CORE	ELE223	Analogue and Digital communications		15	2,400
CORE	ELE225	Electrical Machines and Drives	ELE221	15	2,400
CORE	EGR203	Capstone project		15	2,400
CORE	EGR205*	Industrial Training I	All subjects Sem 1- Sem 3	Non-credit	0
<b>Semester Total</b>				<b>60</b>	<b>9,600</b>
<b>Exit with Diploma in Electrical and Electronic Engineering after successful completion</b>				<b>240</b>	<b>31,950</b>

## Semester 5

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	ELE301	Artificial Intelligence and Machine Learning	CPT151	15	2,400
CORE	ELE303	Signal and systems	MAT137, CPT151	15	2,400
CORE	ELE305	Electrical Energy systems	ELE225	15	2,400
ELECTIVE		Elective 1		15	1,725 - 2,400
<b>Semester Total</b>				<b>60</b>	<b>8,925 - 9,600</b>

## Semester 6

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	EGR301	Engineering management		15	2,400
CORE	PHY307	Renewable Energy		15	1,725
CORE	ELE307	Digital Signal and Image Processing	ELE303, CPT151	15	2,400
ELECTIVE		Elective 2		15	1,725 - 2,400
<b>Semester Total</b>				<b>60</b>	<b>8,250 - 8,925</b>

## Semester 7

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	ELE401	Control System Design and analysis	ELE303	15	2,400
CORE	ELE403	Microprocessor systems	CPT243	15	2,400
CORE	EGR401	Thesis I	Year 1, 2 and 3	15	2,400
ELECTIVE		Elective 1		15	1,725 - 2,400
<b>Semester Total</b>				<b>60</b>	<b>8,925 - 9,600</b>

## Semester 8

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
CORE	EGR403	Thesis II	EGR401	15	2,400
CORE	ELE415	Digital system design	PHY205	15	2,400
ELECTIVE		Elective 1		15	1,725 - 2,400
ELECTIVE		Elective 1		15	1,725 - 2,400
CORE	EGR405**	Industrial Training II	Year 1, 2 and 3	Non-credit	0
<b>Semester Total</b>				<b>60</b>	<b>8,250 - 9,600</b>

## Elective 1

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
ELECTIVE	ELE405	Analogue CMOS IC Design and applications		15	2,400
ELECTIVE	ELE407	Communication systems engineering		15	2,400
ELECTIVE	ELE409	Power electronics		15	2,400
ELECTIVE	ELE411	Sensors and Instrumentation		15	2,400
ELECTIVE	ELE413	Antennas and Microwave Engineering		15	2,400
ELECTIVE	ELE309	Microcontroller engineering		15	2,400

## Elective 2

Type	Code	Name	Prerequisites	Credit Points	Fee (MVR)
ELECTIVE	CPT327	Human Computer Interaction		15	1,725
ELECTIVE	CPT239	Operating System		15	1,725
ELECTIVE	CPT205	Object Oriented Programming		15	1,725
ELECTIVE	CPT245	Software Engineering		15	1,725
ELECTIVE	CPT203	Data Structures and Algorithms		15	1,725
ELECTIVE	ENV215	Geographic Information Systems (GIS)		15	1,725
ELECTIVE	ENV219	Green building and sustainability		15	1,725
<b>Course Total</b>				<b>480</b>	<b>66,300 - 69,675</b>

Fees stated above are tuition fees for local students. Fees for international students is twice the stated fees. All fees are quoted in MVR.

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