



**Higher College of Technology  
Department of Engineering  
Electrical & Electronics Engineering Section**

# Student's Handbook

**2015-16**

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# **I. INTRODUCTION**

## **1.1. Foreword**

This hand book is designed to orient the students of Electrical and Electronics Section of Engineering Department. It provides complete information for students and would serve as a guide that could be sought by students for clearing their frequent doubts about topics relevant to the section. The students are expected to keep this book safely and refer whenever required even after graduating from the college.

## **1.2. Message from Head of the Department**

Our Department of Engineering is taking a proactive role in providing qualified technicians, technologist, and professionals in the different fields of engineering to help Oman in developing. Our legacy traces back to 1984 when the Department of Engineering was founded as an integral part of Oman Industrial College (HCT now). Throughout its history, the Department of Engineering was closely aligned to the local job market through catering for its needs of qualified manpower.

Understanding the criticality of having the right calibre of national workforce to Oman's progress into the 21st century, the government embarked on a radical plan to improve the local manpower through the Vision Oman 2020. At the core of such a plan was increasing enrolment into higher education and technical colleges. The Department of Engineering plays a pivotal role in such a plan by providing education and training to Omani youngsters to enable them to join the job market.

Our department has established itself as a good career entry point. We have the largest undergraduate engineering program in the nation with a current enrolment of 2486 students. Our vision calls for supplying the job market with high quality technicians, technologists, and professionals. The Department aims to be nationally acclaimed as a leader in producing innovative graduates and research that focus on meeting the present and future needs of society. It strives to improve the lives of the citizens of Oman through services and research.

In addition to its size, the Department of Engineering offers a diverse selection to its students and the job market. Currently, the Department offers various levels of qualification in telecommunications, electrical power, computer, civil, architectural, and mechanical engineering. It also offers diplomas in oil and gas, refrigeration and air-conditioning, and engineering draftsman and a higher diploma in quantity surveying.

Our development as a department is continuous. Several new specializations are in the pipeline, such as mechatronics engineering. Moreover, the face of the Department of Engineering is set to change with finalizing the remodelling of its current spaces and the introduction of several new facilities. A big drive to revamp the facilities at the department is under way. New projects that will significantly enhance the department's abilities to deliver knowledge and training are in planning. The future looks very promising.

I invite you to learn more about the Department of Engineering at the Higher College of Technology and discover for yourself the role we play in Oman's development.

**Mr. Shaik Nabi Ashraf Pasha**  
**Head of Department (HOD)**

## **II. ENGINEERING DEPARTMENT PROFILE**

The department of engineering is committed to provide high quality technological education in Electrical & Electronics Engineering, Mechanical & Industrial Engineering and Architecture & Civil Engineering. The department has well qualified Lecturers and Technicians. The workshops and laboratories are equipped with latest tools and instruments to impart technical training in specialized areas. These facilities are designed to adapt the requirements of cutting edge technological growth.

### **2.1. Vision of the Department**

To contribute to the realization of Oman 2020 vision, the Department of Engineering aims to supply the job market with high quality technicians, technologists, and professionals. The Department will be nationally acclaimed as a leader in producing innovative graduates and research that focus on meeting the present and future needs of society. It will improve the lives of the citizens of Oman through services and research.

### **2.2. Mission Statement of the Department**

In realizing its vision, the Department of Engineering has a fundamental mission to serve the Sultanate by providing a highly educated populace, expanding the economy, and being a source of critical technology and unbiased counsel. The Department will fulfill this mission by becoming a locally and nationally recognized source of scholarship, innovation, integrity, and leadership, and by becoming a preferred destination for students and scholars from throughout the country. Our faculty, students, and staff will foster a collaborative, altruistic, and collegial environment, and partner within the department and across the campus and country, with industry, government, and universities. We will be pioneers in satisfying the critical needs of society. Our graduates will be known and sought by the country's and region's elite institutions for their leadership skills, ethical behavior, technical and scientific expertise, and attention to society's needs.

### **2.3. Goal and Objectives of the Department**

#### **2.3.1 Goal of the Department**

The Engineering department will strive to graduate highly trained Technicians, Technologist and Professional to contribute to both the public and the private sector excellence in education.

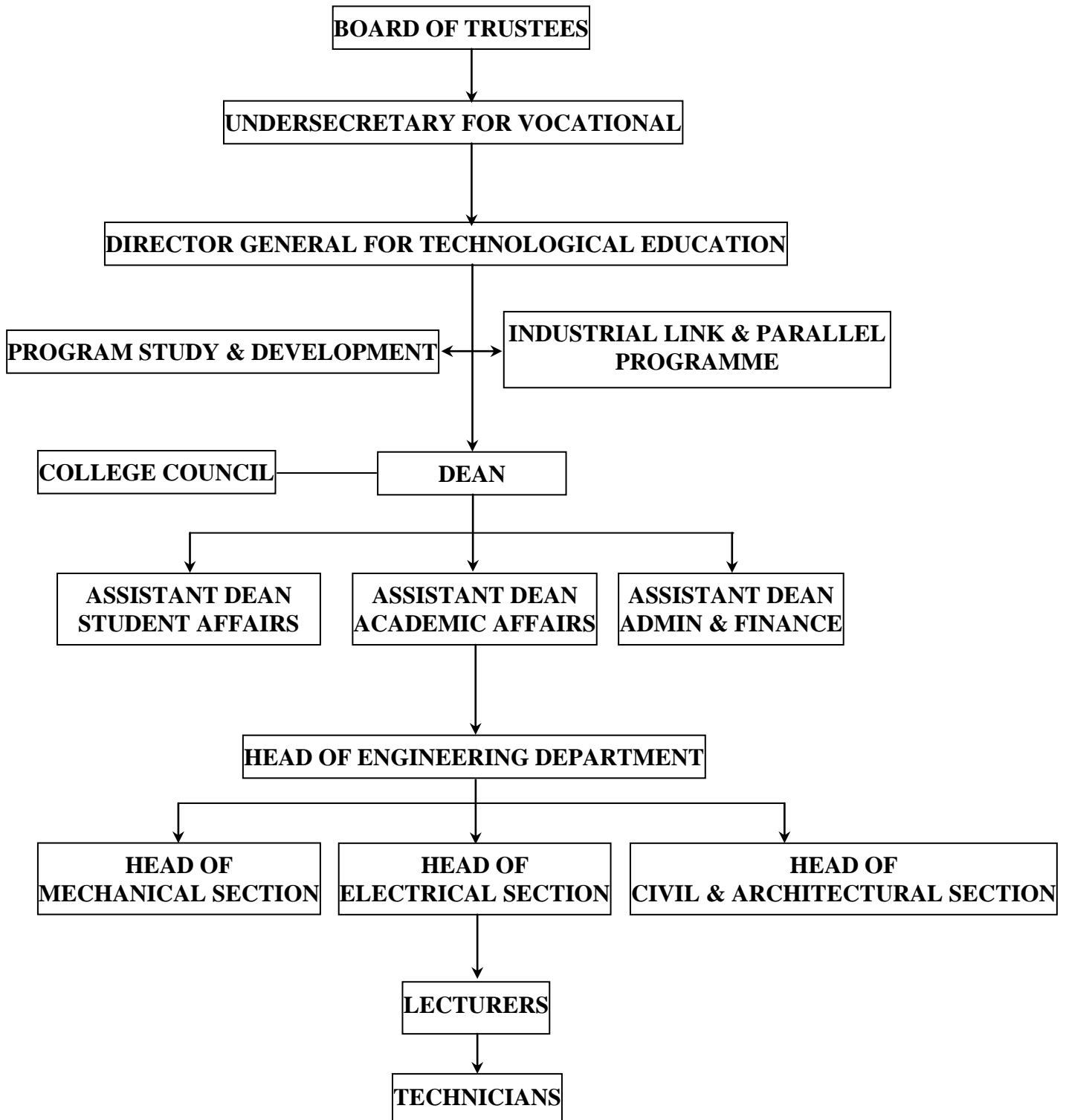
#### **2.3.2. Objectives of the Department**

The department should enable the student to:

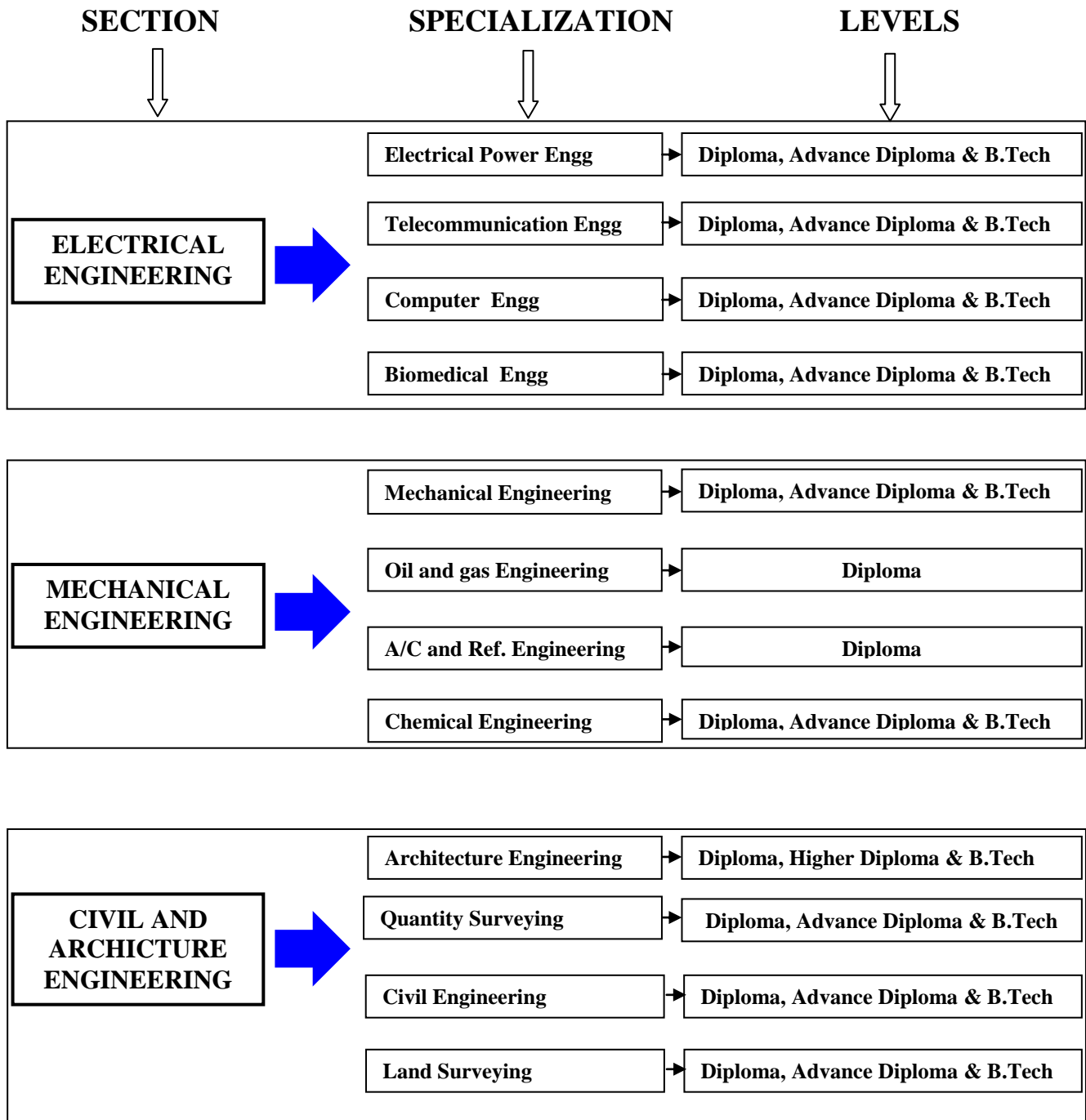
1. Apply the relevant engineering fundamentals in a professional environment.
2. Take an active role and participate in his/her career development to promote technical competence.
3. Make use of the available computer communication resources.
4. Maintain and practice with the highest codes and ethics.
5. Work in multi-disciplinary projects.
6. Use the engineering tools necessary for engineering practice.

7. Function independently and on multi-disciplinary teams.
8. Maintain professional and ethical responsibility
9. Recognize the necessity of lifelong learning.

**2.4. Organizational Structure**



**2.5. Department Structure**



## **III. ELECTRICAL, COMPUTER & TELECOMMUNICATION ENGINEERING (ECT) SECTION PROFILE**

### **3.1. Vision of the Section**

To provide the society with efficient and scrupulous intellectuals who would work sincerely for betterment of the industry and nation. Facilitating strong technological background in major student populace which is the need of the hour is the vision of Electrical and Electronics Engineering section.

### **3.2. Mission Statement of the Section**

Our mission is to produce high quality engineers with integrity and honesty with sound skills. Our work force is very challenging and supportive to achieve this. Our infrastructure paves way for design, fabrication and analysis of complex systems of different specializations we offer. We emphasize on strong moral values, honest effort and responsibility for oneself and the community.

### **3.3. Goals and Objectives of the Section**

#### **3.3.1. Goal of the Section**

To provide an integrated educational experience directed toward development of the ability to apply pertinent knowledge to the solution of practical problems in the graduate's engineering technology specialty. To expand scientific and engineering knowledge by preparing our graduates for employment as telecommunications analysts and engineering technologists through innovative research and hands-on training that responds to the need and challenge of our ever-changing world.

#### **3.3.2. Objectives of the Section**







The student should be able to









1. Contribute to society in a broad range of careers
2. Flourish professionally in an increasingly international and rapidly changing world
3. Effectively understand, use, develop, and implement modern telecommunication systems
4. Develop skills for clear communication and responsible teamwork, and to inculcate professional attitudes and ethics, so that one is prepared for the complex modern work environment
5. Acquire sufficient breadth and depth for successful subsequent graduate study, post-graduate study, or lifelong learning
6. Develop and apply critical thinking skills, enhancing the ability to address unstructured problems specific to technical specialties in telecommunication engineering
7. Acquire technical and managerial skills necessary to enter careers in the design, application, installation, management, operation and/or maintenance of telecommunication systems










## IV. RESOURCES OF THE SECTION









### 4.1. Faculty and Staff Profile









Sl. No	Staff Details		Photograph
1.	Name: Qualification:  Designation:	<b>Mr. Shaik Nabi Ashraf Pasha</b> <b>Masters in Production Engineering</b>  <b>Head of Department</b>	
2.	Name: Qualification:  Designation:	<b>Ms. Fawziya Al Wahaibi</b> <b>Masters in Wireless Communication Engineering</b>  <b>Head of EEE Section</b>	
3.	Name: Qualification:  Designation:	<b>Mr. Nagaraj H P</b> <b>Masters in Electrical Power Engg</b> Lecturer	
4.	Name:  Qualification:  Designation:	<b>Mr. Velmurugan Paramasivam</b> <b>Masters in Power Electronics and Drives</b>  Technician	
5.	Name: Qualification: Designation:	<b>Ms. Ahlam Al Ghafri</b> <b>Masters in Electronics &amp; Computer Engineering</b> Lecturer & Program Coordinator (Computer)	
6.	Name: Qualification: Designation:	<b>Ms. Ameera Al Sakhboori</b> <b>Masters in Computer Communication Networks</b> Lecturer	









	Name: Qualification: Designation:	<b>Ms. Ann Marry</b> <b>Masters in Computer Applications</b> Lecturer	
7.	Name: Qualification: Designation:	<b>Mr. Bernard Cruz</b> <b>Masters in Computer Engineering</b> Lecturer	
8.	Name: Qualification: Designation:	<b>Mr. Christopher Mahadevapa</b> <b>Masters in Electrical Power</b> Lecturer	
	Name: Qualification: Designation:	<b>Mr. Deevyankar Agarwal</b> <b>Masters in Computer Sciences</b> Lecturer	
9.	Name: Qualification: Designation:	<b>Mr. Falah Hassan Jawad</b> <b>Masters in Electronics</b> Lecturer & Department Registrar	
10.	Name: Qualification: Designation:	<b>Ms. Faridha Sajath</b> <b>Masters in Electronics</b> Lecturer	
11.	Name: Qualification: Designation:	<b>Ms. Anupriya Lilwani</b> <b>Masters in Biomedical Engineering</b> Lecturer	
12.	Name: Qualification: Designation:	<b>Mr. Huma Shankar Shastry</b> <b>Masters in Power Electronics</b> Lecturer	









13.	Name: Qualification: Designation:	<b>Mr.Iqram Hanan</b> <b>Masters in Electronic Design</b> Lecturer	
14.	Name: Qualification: Designation:	<b>Mr.Jalil Arjona</b> <b>Bachelors in Electronics</b> Instructor	
15.	Name: Qualification: Designation:	<b>Mr.K. Pasupathi</b> <b>Masters in Industrial drives</b> Lecturer	
16.	Name: Qualification: Designation:	<b>Ms.Lakshmi Kanna</b> <b>Ph.D., in Computer Engineering</b> Lecturer	
	Name: Qualification: Designation:	<b>Mr. Manavvar Ali</b> <b>Masters in Computer Applications</b> Lecturer	
17.	Name: Qualification: Designation:	<b>Dr. M Chandrasekran</b> <b>Ph.D., in Mathematics</b> Lecturer	
19.	Name: Qualification: Designation:	<b>Dr. Noorul Hassan</b> <b>Ph.D., in Signal Processing</b> Lecturer	
20.	Name: Qualification: Designation:	<b>Mr.Rene Algeria Forcadilla</b> <b>Bachelors in Electronics</b> Lecturer (Biomedical)	

21.	Name: Qualification: Designation:	<b>Mr.Rosalio Pana</b> <b>Masters in Electronics</b> Lecturer	
22.	Name: Qualification: Designation:	<b>Dr.Gunasekaran Thangavel</b> <b>Ph.D., in</b> <b>Wireless Communications</b> Lecturer & Research Committee - Section Coordinator	
23.	Name: Qualification: Designation:	<b>Ms.Sowmya Saraswathi</b> <b>Masters in VLSI Design</b> Lecturer	
24.	Name: Qualification: Designation:	<b>Mr.Yasir Latif</b> <b>Masters in Computer</b> <b>Engineering</b> Lecturer	
25.	Name: Qualification: Designation:	<b>Mr.Abdallah Al Abdaly</b> <b>Bachelors in Electrical</b> <b>Power</b> Technician	
26.	Name: Qualification: Designation:	<b>Mr.Aldwin Sumalabe</b> <b>Bachelors in Computer</b> <b>Engineering</b> Technician & Website Coordinator	
27.	Name: Qualification: Designation:	<b>Mr.Alex pabayo</b> <b>Bachelors in Electronics</b> Technician	
28.	Name: Qualification: Designation:	<b>Mr.Ali Al Hashmi</b> <b>Bachelors in Electrical</b> <b>Power</b> Chief Technician (Electrical Power)	









29.	Name: Qualification: Designation:	<b>Ms.Amelita Abriol</b> <b>Bachelors in Electronics</b> Technician & Registrar-EEE	
	Name: Qualification: Designation:	<b>Mr.Saravanan Velusamy</b> <b>Masters in Biomedical</b> <b>Signal Processing</b> Lecturer	
30.	Name: Qualification: Designation:	<b>Mr.Bernardo Gumapac</b> <b>Bachelors in Computer</b> <b>Engineering</b> Technician & Time Table Coordinator	
31.	Name: Qualification: Designation:	<b>Mr.Dexter Castillo</b> <b>Masters in Power</b> Technician & OJT Coordinator-EEE	
32.	Name: Qualification: Designation:	<b>Mr.Dindo Latonio</b> <b>Masters in Information</b> <b>Management</b> Technician HSE Coordinator	
33.	Name: Qualification: Designation:	<b>Mr.Diosdado Aler II</b> <b>Bachelors in Computer</b> <b>Engineering/Masters in</b> <b>Teaching</b> Technician & Chief Technician - Computer	
34.	Name: Qualification: Designation:	<b>Ms.Seeja Benjamin</b> <b>Masters in Biomedical</b> <b>&amp;Instrumentation</b> <b>Engineering</b> Lecturer	
35.	Name: Qualification: Designation:	<b>Mr.Ian Sumalabe</b> <b>Bachelors in Computer</b> <b>Engg</b> Technician	









36.	Name: Qualification: Designation:	<b>Mr.Haja Navas</b> <b>Bachelors in Electrical &amp; Electronics</b> Technician	
37.	Name: Qualification: Designation:	<b>Mr.Jeffery Follante</b> <b>Masters in Electronics</b> Technician & Chief Technician- Telecomm	
38.	Name: Qualification: Designation:	<b>Ms.Jennifer Dakanay</b> <b>Bachelors in Electronics</b> Technician	
39.	Name: Qualification: Designation:	<b>Mr.Karlo Calpotura</b> <b>Masters in Management</b> <b>Engg</b> Technician	
41.	Name: Qualification: Designation:	<b>Ms.Mayra Fulgar</b> <b>Bachelors in</b> <b>Electronics/Masters of</b> <b>Education</b> Technician & Engineering Resource Manager	
	Name: Qualification: Designation:	<b>Mr.Mohammad Abdallah</b> <b>Al Maskary</b> <b>Bachelors in Electrical Lab</b> <b>Technology</b> Technician	
42.	Name: Qualification: Designation:	<b>Mr.Mohammad Fassiudin</b> <b>Masters in Electronics</b> Technician	
43.	Name: Qualification: Designation:	<b>Mr.Nabil Al Toubi</b> <b>Bachelors in Computer Lab</b> <b>Technology</b> Technician	

44.	Name: Qualification: Designation:	<b>Mr.Nasser Al Touqi</b> <b>Diploma in Electronics</b>  Technician	
45.	Name: Qualification: Designation:	<b>Mr.Rafeek Ahmed</b> <b>Masters in Electronics</b>  Technician	
46.	Name: Qualification: Designation:	<b>Mr.Renato Nicolas</b> <b>Masters in Electrical</b> <b>Technology</b>  Technician	
47.	Name: Qualification: Designation:	<b>Mr.Reynaldo Cruz</b> <b>Bachelors in Electronics</b>  Technician	
48.	Name: Qualification: Designation:	<b>Mr.Richel Robles</b> <b>Bachelors in Electronics</b> Technician & ECT- Administrator	
49.	Name: Qualification: Designation:	<b>Mr.Rodolfo Freo</b> <b>Bachelors in Electrical</b> <b>Power</b>  Technician	
50.	Name: Qualification: Designation:	<b>Mr.Ronaldo Silverio</b> <b>Masters in Electronics</b>  Technician	
51.	Name: Qualification: Designation:	<b>Mr.Sabri Al Adawi</b> <b>Bachelors in Electronics</b> Technician & Chief Technician- Biomedical	

52.	Name: Qualification: Designation:	<b>Mr.Venkata Rajkumar.CH</b> <b>Masters in Electronics</b> Technician	
53.	Name: Qualification: Designation:	<b>Ms.Ummu Salma</b> <b>Masters in Biomedical</b> <b>signal Processing.</b> Lecturer & Program Director- Biomedical	
54.	Name: Qualification: Designation:	<b>Mr.Ashkar Mohammed M</b> <b>Masters in Instrumentation</b> <b>&amp; Control</b> Lecturer	
55.	Name: Qualification: Designation:	<b>Ms.Sharada Venkatachalam</b> <b>Masters in Mathematics</b> Lecturer	
56.	Name: Qualification: Designation:	<b>Ms.Aruna M.</b> <b>Masters in Electrical Power</b> Lecturer	
57.	Name: Qualification: Designation:	<b>Ms.Laila Al Ajmi</b> <b>Diploma in Electronics</b> Technician	
58	Name: Qualification: Designation:	<b>Dr.Jonathan C</b> & Chief Technician- Telecomm <b>ansino</b> <b>Ph.D in Technology</b> <b>Management</b> Lecturer & Program Director - Telecom	
59	Name: Qualification: Designation:	<b>Mr.Waleed Abdullah saif Al</b> <b>Abri</b> <b>Masters in Electrical power</b> Lecturer & Program Director – Power Electronics	



60	Name: Qualification: Designation:	<b>Mr.Ahmed Glander</b> <b>Batchelor in Medical</b> <b>Engineering</b> Technician	
61	Name: Qualification: Designation:	<b>Dr.Muralidhara Bhojaraj</b> <b>Ph.D., in Electrical</b> <b>Engineering</b> Lecturer	
62	Name: Qualification: Designation:	<b>Ms.Alagammai Nachiappan</b> <b>Masters in Biomedical</b> <b>Engineering</b> Technician	
63	Name: Qualification: Designation:	<b>Mr.Nestor camina</b> <b>Bachelor in Electrical</b> <b>Engineering</b> Technician	
64	Name: Qualification: Designation:	<b>Ms.Pamuri N.Srilatha</b> <b>Masters in Electronics and</b> <b>communication</b> Technician	
65	Name: Qualification: Designation:	<b>Ms.Jayavanthi Wesley</b> <b>Batchelor in Computer</b> <b>Engineering</b> Technician	
66	Name: Qualification: Designation:	<b>Mr.Joseph Paul G Juanich</b> <b>Masters in computer</b> <b>Engineering</b> Technician	
67	Name: Qualification: Designation:	<b>Mr.Arun joy</b> <b>Masters in power system</b> Technician	

68	Name: Qualification: Designation	<b>Mr.Ravitej Visanagiri</b> <b>Masters in Electrical power</b> Technician	
69	Name: Qualification: Designation	<b>Mr.Renato Nicolas</b> <b>Masters in Electrical power</b> Technician	
70	Name: Qualification: Designation	<b>Mr.Surque Amjad Ali khan</b> <b>Bachelor in Electrical Power</b> Technician	
71	Name: Qualification: Designation	<b>Dr.Avinash Gaur</b> <b>Ph.D., in Mathematics</b> Lecturer & Program Director Mathematics	
72	Name: Qualification: Designation	<b>Dr.Sudhir Kumar</b> <b>Ph.D., in Mathematics</b> Lecturer	
73	Name: Qualification: Designation	<b>Ms.Lavanya Sarma</b> <b>Masters in Mathematics</b> Lecturer	
74	Name: Qualification: Designation	<b>Mr.J.Albert Prasanna kumar</b> <b>Masters in Digital system &amp; Computer Electronics</b> Lecturer	
75	Name: Qualification: Designation	<b>Dr.Ganesh Venkatraman</b> <b>Ph.D., in Mathematics</b> Lecturer	

#### 4.2. Laboratories and Workshops

Sl. No	Name of the Lab/Workshop	Room Number, floor and Building
1.	Electronics Lab	CE108, First Floor in Electrical Building
2.	Telecommunication Lab	CE115, First Floor in Electrical Building
3.	Electrical Principles Lab	CE010, Ground Floor in Electrical Building
4.	Electrical Machines Lab	CE008, First Floor in Electrical Building
5.	Electronics Project Lab	CE101, First Floor in Electrical Building
6.	PCB Lab	CE112, First Floor in Electrical Building
7.	Computer Engineering Lab	CE104, First Floor in Electrical Building
8.	Electronics Lab	CE117, First Floor in Electrical Building
9.	Biomedical Lab	CE120, First Floor in Electrical Building
10.	Electrical workshops	CE004, Ground Floor in Electrical Building
11.	Free Access Lab	CE118, First Floor in Electrical Building

#### 4.3. Library / Study room

Sl. No	Name of the Lab/Workshop	Details
1.	Male Study room	CE116, First Floor in Electrical Building
2.	Female Study room	CE110, First Floor in Electrical Building

#### 4.4. Important Offices

Sl. No	Name of the Offices	Room Number & Building
1.	HoD office	CE122, First Floor in Electrical Building
2.	Engineering Students Affair	
3.	Engineering Store	CE105, First Floor in Electrical Building
4.	OJT office	
5.	Quality Assurance office	CE109, First Floor in Electrical Building
6.	Department Registrar office	CE109, First Floor in Electrical Building
7.	ECT Section Registrar office	CE115, First Floor in Electrical Building
8.	Computer Engineering staff office	CE111, First Floor in Electrical Building
9.	Telecommunication Engineering staff office	CE102, First Floor in Electrical Building
10.	Biomedical Engineering staff office	CE124, First Floor in Electrical Building
11.	Mathematics (Engineering) Staff office	CE116, First Floor in Electrical Building
12.	Electrical Power staff office	CE011 & CE007, First Floor in Electrical Building

## V. ACADEMIC INFORMATION

### 5.1. Engineering degree structure

Total duration of Engineering degree:  
Organization of Engineering degree:

<b><u>4 years and 4 levels</u></b>		
<b><u>Diploma (First year)</u></b>	<b><u>1 year</u></b>	<b><u>Common</u></b>
<b><u>Diploma (Second year)</u></b>	<b><u>1 year</u></b>	<b><u>Specialization</u></b>
<b><u>Advance Diploma</u></b>	<b><u>1 year</u></b>	<b><u>Specialization</u></b>
<b><u>Bachelors</u></b>	<b><u>1 year</u></b>	<b><u>Specialization</u></b>

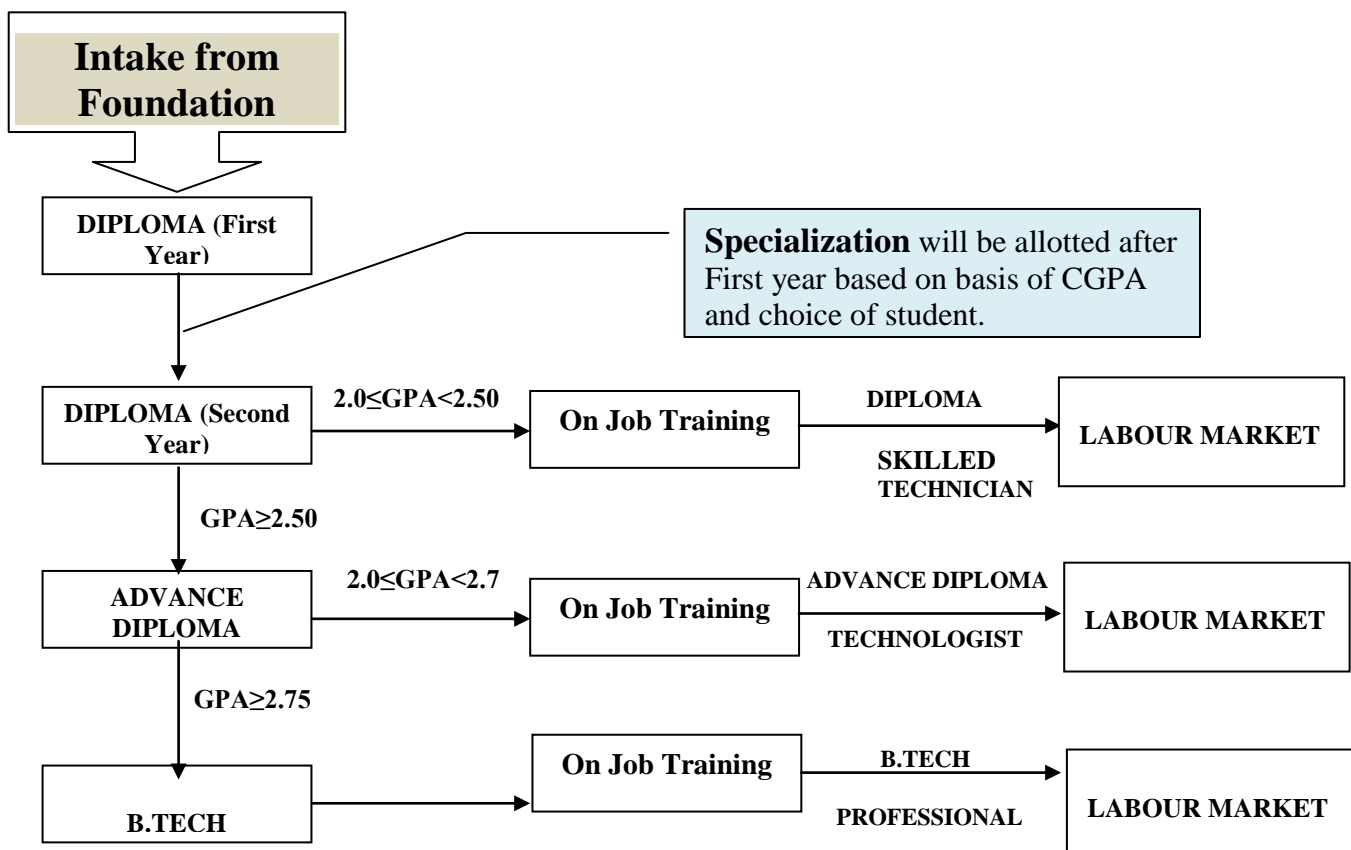
### 5.2. Organization of each level in degree:

Number of Courses in each level:     **12**

Duration of each Level:                 **1 year (3 semesters)**

- ➔ Semester 1 (from September to December) – 5 courses
- ➔ Semester 2 (from January to April) – 5 courses
- ➔ Semester 3 (from May to June) – 2 courses

### 5.3. Academic Progression



## VI. ACADEMIC PERFORMANCE

### 6.1. Grading System

The table below shows the grade and grade point for various marks.

GRADE	MARKS	GRADE POINT
A	90-100	4
A-	85-89	3.7
B+	80-84	3.3
B	76-79	3.0
B-	73-75	2.7
C+	70-72	2.3
C	67-69	2.0
C-	60-66	1.7
D	55-59	1.0
F	BELOW 55	0.0

### 6.2. Passing Grade

The passing grade is C for all specialization courses. C- for all departmental requirement courses and D for all college requirement courses. The passing grade to be achieved in different courses is specified in Chapter X - Course plan of this hand book.

### 6.3. Semester GPA and CGPA Calculation

#### 6.3.1. Semester GPA Calculation

GPA is Grade Point Average and it is generally referred to as semester GPA. It is calculated with the grades obtained by a student in different courses he/she has registered in a particular semester. GPA is arrived at by the following procedure.

**Step 1:** Multiply the grade point achieved of each course by number of credit hours of course.

**Step 2:** Find the sum of the data obtained in step 1.

**Step 3:** Total up the number of credit hours of all registered courses of that semester.

**Step 4:** Divide the data obtained in step 2 by the data obtained in step 3. This is SGPA.

The semester GPA calculation for a sample case is as follows.

CODE	COURSE TITLE	CREDIT HOURS	GRADE ACHIEVED	GRADE POINTS
ENGL 1100	ADVANCED WRITING 1	1	C	2
MATH 1100	COLLEGE ALGEBRA	3	C+	2.3
ASAC 1101	FUNDAMENTALS OF CHEMISTRY	4	A-	3.7
ITSE 1100	INFORMATION SYSTEMS & MULTIMEDIA	3	B	3
CECE 1200	ENGINEERING GRAPHICS	4	B-	2.7

$$\text{Semester GPA} = \Sigma (\text{Credit hours} \times \text{Credit points}) \div \Sigma \text{Total Credit hours}$$

$$= \{(1 \times 2) + (3 \times 2.3) + (4 \times 3.7) + (3 \times 3) + (4 \times 2.7)\} \div \{1+3+4+3+4\}$$

$$= 43.5 \div 15 = 2.90 \quad \text{Therefore } \boxed{\text{Semester GPA} = 2.90}$$

### 6.3.2. CGPA Calculation

CGPA is Cumulative Grade Point Average. It is calculated with the grades obtained by a student in different courses in more than one semester.

#### **Case 1:**

#### SEMESTER 1

CODE	COURSE TITLE	CREDIT HOURS	GRADE ACHIEVED	GRADE POINTS	STATUS	NOTE
ENGL 1100	ADVANCED WRITING I	1	C	2		
MATH 1100	COLLEGE ALGEBRA	3	C+	2.3		
ASAC 1101	FUNDAMENTALS OF CHEMISTRY	4	A-	3.7		
ITSE 1100	INFORMATION SYSTEMS & MULTIMEDIA	3	B	3		
CECE 1200	ENGINEERING GRAPHICS	4	B-	2.7		

#### SEMESTER GPA

$$= \{(1 \times 2) + (3 \times 2.3) + (4 \times 3.7) + (3 \times 3) + (4 \times 2.7)\} \div \{1+3+4+3+4\}$$

$$= 43.5 \div 15$$

$$= \mathbf{2.90}$$

#### CGPA

$$= \{(1 \times 2) + (3 \times 2.3) + (4 \times 3.7) + (3 \times 3) + (4 \times 2.7)\} \div \{1+3+4+3+4\}$$

$$= 43.5 \div 15$$

$$= \mathbf{2.90}$$

#### SEMESTER 2

CODE	COURSE TITLE	CREDIT HOURS	GRADE ACHIEVED	GRADE POINTS	STATUS	NOTE
ENGL 1200	ADVANCED WRITING II	1	B	3		
MATH 1200	CALCULUS FOR ENGINEERING	4	C+	2.3		
PHYS 1200	PHYSICS I (ENGINEERING)	4	B-	2.7		
EEPW 1140	ENGINEERING WORKSHOP	3	B	3		
EECP 1290	COMPUTER PROGRAMMING FOR ENGG	3	F	0	N	

#### SEMESTER GPA

$$= \{(1 \times 3) + (4 \times 2.3) + (4 \times 2.7) + (3 \times 3) + (3 \times 0)\} \div \{1+4+4+3+3\}$$

$$= 32 \div 15$$

$$= \mathbf{2.13}$$

### CGPA

$$= \{(1 \times 2) + (3 \times 2.3) + (4 \times 3.7) + (3 \times 3) + (4 \times 2.7) + (1 \times 3) + (4 \times 2.3) + (4 \times 2.7) + (3 \times 3) + (3 \times 0)\} \div \{1+3+4+3+4+1+4+4+3+3\} - \text{from both the semesters 1 \& 2}$$

$$= 75.5 \div 30$$

$$= \mathbf{2.51}$$

### Case 2:

#### SEMESTER 1

CODE	COURSE TITLE	CREDIT HOURS	GRADE ACHIEVED	GRADE POINTS	STATUS	NOTE
ENGL 1100	ADVANCED WRITING I	1	C	2		
MATH 1100	COLLEGE ALGEBRA	3	D	1	N	
ASAC 1101	FUNDAMENTALS OF CHEMISTRY	4	A-	3.7		
ITSE 1100	INFORMATION SYSTEMS & MULTIMEDIA	3	B	3		
CECE 1200	ENGINEERING GRAPHICS	4	B-	2.7		

#### SEMESTER GPA

$$= \{(1 \times 2) + (3 \times 1) + (4 \times 3.7) + (3 \times 3) + (4 \times 2.7)\} \div \{1+3+4+3+4\}$$

$$= \mathbf{2.64}$$

### CGPA

$$= \{(1 \times 2) + (3 \times 1) + (4 \times 3.7) + (3 \times 3) + (4 \times 2.7)\} \div \{1+3+4+3+4\}$$

$$= \mathbf{2.64}$$

#### SEMESTER 2

CODE	COURSE TITLE	CREDIT HOURS	GRADE ACHIEVED	GRADE POINTS	STATUS	NOTE
MATH 1100	COLLEGE ALGEBRA	3	D	1	N	
ENGL 1200	ADVANCED WRITING II	1	B	3		
PHYS 1200	PHYSICS I (ENGINEERING)	4	B-	2.7		
EEPW 1140	ENGINEERING WORKSHOP	3	B	3		
EECP 1290	COMPUTER PROGRAMMING FOR ENGG	3	F	0	N	

### **SEMESTER GPA**

$$= \{(3 \times 1)+(1 \times 3)+(4 \times 2.7)+(3 \times 3)+(3 \times 0)\} \div \{3+1+4+3+3\}$$

$$= \mathbf{1.84}$$

### **CGPA**

$$= \{(1 \times 2)+(3 \times 1)+(4 \times 3.7)+(3 \times 3)+(4 \times 2.7)+ \{(3 \times 1)+(1 \times 3)+(4 \times 2.7)+(3 \times 3)+(3 \times 0)\} \div \{1+3+4+3+4+3+1+4+3+3\}$$

$$= \mathbf{1.97}$$

### **SEMESTER 3**

CODE	COURSE TITLE	CREDIT HOURS	GRADE ACHIEVED	GRADE POINTS	STATUS	NOTE
MATH 1100	COLLEGE ALGEBRA	3	C	2		R
EECP 1290	COMPUTER PROGRAMMING FOR ENGG	3	C-	1.7		R

### **SEMESTER GPA**

$$= \{(3 \times 2)+(3 \times 1.7)\} \div \{3+3\}$$

$$= \mathbf{1.85}$$

### **CGPA**

$$= \{(1 \times 2)+(4 \times 3.7)+(3 \times 3)+(4 \times 2.7)+(3 \times 1)+(1 \times 3)+(4 \times 2.7)+(3 \times 3)+(3 \times 2)+(3 \times 1.7)\} \div \{1+3+4+4+1+4+3+4+3+3\}$$

$$= \mathbf{2.22}$$

### **6.4. Academic Probation**

The students with a semester GPA of less than 2.00 are given chance to slow down their studies by putting them into academic probation. They can be put into academic probation in two consecutive semesters as academic probation 1 and academic probation 2. The academic probation resets to 0 when a student comes out of it by satisfying the given conditions.

A full time student will be under academic probation, if his/her GPA is less than 2.00 in any semester. The semester after he has got less than semester GPA 2.00 would be his/her academic probation 1. He/she would be allowed to register for a maximum of 12 credit hours during probation.

A student can come out of academic probation if he/she passes all courses registered and gets a CGPA of  $\geq 2.00$ . The student would enter into probation 2 if he/she fails a course or gets a semester GPA or CGPA of less than 2.00 at the end of academic probation 1.

### **6.5. Dismissal**

A student will be dismissed from the college based on the following criteria.



Failure to obtain a semester GPA of 2.00 at the end of second academic probation.  
Being absent from all the classes for two consecutive weeks, without an acceptable reason.  
Upon the decision made by disciplinary committee to dismiss a student.

### **6.6. Postponement of study**

The college council is authorized, in case of acceptable reasons, to agree to the postponement of a student's study for a maximum period of two semesters, throughout the period of his/her study. The student has to submit the request with relevant documents to Assistant Dean Student's Affairs.

### **6.7. Student Attendance**

Student attendance is an important issue in the process of learning. The students are expected to attend all the lectures and lab sessions promptly on time. This would help them to keep themselves confident in the courses they study and perform well in the exams. To be eligible to sit in the final exam, student should have 80% attendance in the class.

The tool that aids to regulate student attendance is warning letters. Students are issued three warning letters in a semester if they do not attend all the classes properly. First warning is issued if a student is absent for 10% of the lectures/lab sessions. Second warning is issued on 20% absence. The third warning is on 30% absence. Upon third warning the student is debarred from exams.

## **VII. ADVISING & REGISTRATION**

### **8.1. Academic Advisors and their role**

#### **8.1.1. Major Role of Advisor**

Students enrolled in college are assigned advisors to assist them in planning the courses following a given educational program of study and other required assistance.

The role of the academic advisor extends beyond course and program scheduling. Advisors can assist the student with virtually all aspects of the academic experience and provide information regarding campus resources as needed. Some of the specific responsibilities of academic advisors include but are not limited to:

- ➔ Selection of Specialization after Diploma (First year)
- ➔ Planning and advising courses
- ➔ Monitoring academic progress
- ➔ Clarification of academic policies
- ➔ Assistance with academic issues

#### **8.1.2. When to see Advisor:**

You can contact your advisor on any matters related to your educational progress. You are responsible for sharing essential information about your academic progress, strengths and weaknesses etc.

All students must report to their advisor before every General Registration period in the start of semester. Ideally, students should see their advisors at least once in a week.

### **8.2. Advising & Registration Procedure**

#### **8.2.1. Advising**

Students have to meet the advisors prior to every registration process in the start of every semester. This meeting will be very important as they have to discuss the courses to be registered in coming semester.

Once the courses to be registered will be finalized than Advisor will advise the courses in the Academic module.

#### **8.2.2. Registration**

Registration will be done online by the student on the defined schedule using the Online registration system. Online registration system can be accessed by the students using the following URL.

[www.manpower.gov.om/college\\_system](http://www.manpower.gov.om/college_system).

A Username and Password will be required for using this system, which can be obtained/verified from the advisor. Student can ask for a demonstration about the usage of the system before the scheduled date of registration to avoid any delay or problem.

For Registration schedule and other important information regarding the Advising and Registration, exam results, appeals schedule etc are posted on the college website as well as the Notice boards within the department. It's the responsibility of the students to frequently visit these resources to get updated information and announcements.

## **VIII. GENERAL REGULATIONS**

### **8.1. Student Code of Conduct**

A fundamental goal of the department is to develop an environment in which students and staff may live and work productively together, making use of the rich resources of the department, in individual and collective pursuit of academic excellence and extracurricular accomplishment.

For this goal to be achieved, students must be a tolerant and characterized by civility and consideration.

It is the expectation of the department that all students, will behave in a mature and responsible manner. This expectation for mature and responsible conduct also encompasses accountability for one's own well-being, including responsible decision-making regarding physical and mental health.

The students are expected to follow appropriate dress code within the college premises. Boys are expected to wear white dishdashas with proper head gear during regular class hours and a overall with cap during lab/workshop hours. Girls are expected to wear black abayas with scarf covering their hair during regular class hours and lab coats during lab/workshop hours.

All the issues related to the misconduct of the students in classes, Labs and within department/college premises will be resolved using the disciplinary procedures and actions mentioned in the college Bylaws.

### **8.2. Student Complaints**

The students are free to complain their grievances through proper channel. They can collect a complaint form from Focal Point Ms. Buthaina Al-Siyabi (Head of the Academic issue committee), fill the form and submit it back to her. Then the issue will be discussed by the committee and it will be solved.

Moreover it is always advised that, it is better to discuss your problem with the person concerned before making any complaint about anybody because, timely and helpful solutions are possible only by open and calm discussions. Always keep in mind that, the teachers and other staff of the section are working only for the benefit of students and not against them.

### **8.3. Student Appeals**

The students can appeal against their results of examinations by completing an appeal form available in student affairs section, of department (in Mechanical Engineering building) or any other place defined by the college for this purpose time to time. Students have to fill the form and submit it within three days from the date of announcement of results or otherwise according to the announced schedule after the results for the appeals.

The examinations committee will review the exam papers within one week from the date of submission of appeal forms to verify the accuracy of student's result and outcomes of appeals will be posted on the notice boards and/or on the website.

#### **8.4. General Laboratory Safety rules**

1. Food, beverages, substances and related utensils shall not be brought into, stored or consumed in any laboratory.
2. Smoking is prohibited in all laboratories at all times.
3. Foot wear shall be serviceable, provide full coverage of the feet and have non-skid soles.
4. Appropriate apparel shall be worn in laboratories at all times. Avoid wearing overly-bulky or loose-fitting clothing, or dangling jewelry that may become entangled in your experimental apparatus.
5. All occupants shall be familiar with the locations and operation of safety and emergency equipment, including but not limited to, fire extinguishers, first aid kits, fire alarm pull stations, emergency telephones, and emergency exits and egress plans.
6. Unauthorized person(s) shall not be allowed in a laboratory for any reason.  
"Authorized" means having official college business in the laboratory with the permission of the Department of Engineering.
7. Never open (remove cover) of any equipment in the laboratories. Never "jump," disable, bypass or otherwise disengage any safety device or feature of any equipment in the laboratories.
8. All safety instructions, warnings, posted signs, verbal orders shall be complied with by all personnel.
9. Learn and know what to do in an emergency.
10. Report all accidents, injuries or breakage to the instructor immediately. Also, report any equipment that you suspect is malfunctioning.
11. Use equipment with care for the purpose for which it is intended.
12. **Do not perform unauthorized experiments.** Get the instructor's permission before you try something original.
13. **Follow directions.** Come to laboratory prepared to perform the experiment. Follow all written and verbal instructions. When in doubt, ask.
14. **Absolutely no horseplay.** Be alert and attentive at all times. Act like an adult.
15. Return all equipment, clean and in good condition, to the designated location at the end of the lab period.
16. Leave your lab area clean and tidy after you finish your work.

#### **8.4. Safety rules for Electrical and Electronics Labs**

1. Think before touching any electrical circuit. Make sure it is in "OFF" condition.
2. Concentrate, and don't get distracted when working on an electrical system.
3. When using higher voltages greater than approximately 24V, avoid touching the circuit with both hands and avoid any contact with metal furniture or the ground.
4. Inductive or capacitive components such as capacitors can store the electrical energy for some hours even after the circuit is switched off. Before touching these components, check that they are discharged by short-circuiting them with resistance.
5. Do not forget that some electrical circuits have a very high operating temperature. Let them cool before touching.
6. Work on a live circuit under voltage only in cases of real need.
7. Ask the instructor to check all electrical circuits before you turn on the power.
8. When working with electrical circuits, be sure that the current is turned off before making adjustments in the circuit.
9. Do not connect the terminals of a battery or power supply to each other with a wire. Such a wire will become dangerously hot.

## **IX. STUDENT'S ASSESSMENT OF COURSES AND DELIVERY**

### **9.1. Courses Assessment procedure:**

Taking Feedback of the services delivered to the stakeholders is a great way to improve the quality of services. Following the same principle ECT section is also conducting surveys for the courses and their delivery to assess the quality of education delivered to the students. In these surveys students have to fill Online Survey forms. The results of survey will be used to improve the effectivity of course and its delivery.

Students can fill these survey forms with full confidence that teacher or any other person can't access or use them for targeting a specific student and secondly forms will be filled anonymously without mentioning the name or any other identification. But students have to do this activity with great responsibility and a motivation for improvement of system.

## X. COURSE PLAN & DESCRIPTION

### 10.1. Engineering Diploma (First Year)

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH1102	Pure Math	Department Elective	3	2	2	50
ITAD1100	Advanced I T Skills	College Elective	3	0	4	55
CHEM1100P	Fundamentals Of Chemistry (Engineering) Practical	Departmental Requirments	0	0	2	60
CHEM1100	Fundamentals Of Chemistry (Engineering)	Departmental Requirments	3	2	2	60
CECE1100	Engineering Graphics	Departmental Requirments	3	0	6	60
MATH1100	College Algebra	Department Elective	3	3	0	60
ITSE1100	Information System Multimedia	College Elective	3	0	6	55
MATH1101	Pre Calculus	Department Elective	3	3	0	60
ENTW1100	Technical Writing I	College Requirement	3	4	0	55
		<b>Semester Credit Hrs :</b>	<b>24</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
PHYS1100	Physics 1 (Engineering)	Departmental Requirments	3	2	2	60
PHYS1100P	Physics 1 (Engineering) Prac.	Departmental Requirments	0	0	2	60
EEPW1240	Engineering Workshop	Departmental Requirments	3	0	6	60
EECP1290	Computer Programming For Engineering	Departmental Requirments	3	2	2	60
ENTW1200	Technical Writing II	College Requirement	3	4	0	55
EECP1290P	Computer Programming For Engineering Prac.	Departmental Requirments	0	0	2	60
MATH1200	Calculus I	Departmental Requirments	3	3	0	60
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
BACO1212	Job Search Tecniques	College Requirement	3	5	0	55
PHYS1211	Physics 2 (Engineering)	Departmental Requirments	3	2	0	60
PHYS1211P	Physics 2 (Engineering) Pract.	Departmental Requirments	0	0	2	60
		<b>Semester Credit Hrs :</b>	<b>6</b>			

## 10.1. Computer Engineering

### 10.1.1. Diploma (Second year)

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH2100N	Calculus II	Departmental Requirements	3	3	0	60
ENGL2100	Technical Communication	College Requirement	3	3	0	55
EEPW2150P	Electrical Principles Pract	Major Requirement	0	0	2	67
EECP2160P	Logic Techniques And Circuits Lab	Major Requirement	0	0	2	67
EETE2102P	Electronics I Lab	Major Requirement	0	0	2	67
EETE2102	Electronics I	Major Requirement	3	2	0	67
EECP2160	Logic Circuits And Techniques	Major Requirement	3	2	0	67
EEPW2150	Electrical Principles	Major Requirement	3	2	0	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EERE2201	Renewable Energy	College Requirement	3	3	0	55
EECP2280	Data Structures And Algorithms	Major Requirement	3	2	0	67
EETE2200	Electronics Skills	Major Requirement	3	0	6	67
EECP2280P	Data Structures And Algorithms Pract	Major Requirement	0	0	2	67
EECP2291P	Operating Systems Lab	Major Requirement	0	0	4	67
EECP2291	Operating Systems	Major Requirement	3	1	0	67
EETE2200P	Electronics Skills Pract	Major Requirement	0	0	4	67
EECP2270P	Digital Electronics Pract	Major Requirement	0	0	2	67
EECP2270	Digital Electronics	Major Requirement	3	2	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
PHIL3108	Business Ethics	College Requirement	3	2	2	55
EECP2399	Diploma Project	Major Requirement	3	0	6	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

### 10.1.2. Advance Diploma

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EECP3270	Data Communication	Major Requirement	3	2	0	67
EECP3270P	Data Communication Pract	Major Requirement	0	0	2	67
EEIE3102N	Electronics II	Major Requirement	3	2	0	67
MATH3120N	Engineering Mathematics	Departmental Requirments	3	3	0	60
EECP3180	Computer Networks	Major Requirement	3	1	0	67
EECP3171P	Microprocessors Systems And Interfacing Pract	Major Requirement	0	0	2	67
EEIE3102NP	Electronics II Prac.	Major Requirement	0	0	2	67
EECP3180P	Computer Networks Pract	Major Requirement	0	0	4	67
EECP3171	Microprocessors Systems And Interfacing	Major Requirement	3	2	0	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EECP3275	Digital Control Systems	Major Requirement	3	2	0	67
EECP3275P	Digital Control Systems Pract	Major Requirement	0	0	2	67
EECP3283	Computer Organisation & Architecture	Major Requirement	3	2	2	67
EEIE3220P	Digital Signal Processing Pract	Major Requirement	0	0	2	67
ENGL3100	Public Speaking	College Requirement	3	2	2	55
EECP3281P	Unix System Administration (Linux) Pract	Major Requirement	0	0	4	67
EECP3283P	Computer Organisation & Architecture Pract	Major Requirement	0	0	2	67
EEIE3220	Digital Signal Processing	Major Requirement	3	2	0	67
EECP3281	Unix System Administration (Linux)	Major Requirement	3	1	0	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EECP3399	Higher Diploma Project	Major Requirement	3	0	6	67
PHIL3201	Formal Arabic Communication	College Requirement	3	3	0	55
		<b>Semester Credit Hrs :</b>	<b>6</b>			



### 10.1.3. Bachelors

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH4130	Probability & Statistics	Departmental Requirments	3	3	0	60
EECP4192N	Software Engineering & High Level Programming	Major Requirement	3	2	0	67
ITSE3103	Advanced Operating Systems For Engineering	Major Requirement	3	3	0	67
EECP4192PN	Software Engineering Lab	Major Requirement	0	0	2	67
EECP4231P	Micro Computer Engineering Pract.	Major Requirement	0	0	2	67
PHIL4101	Oman Civilization	College Requirement	3	3	0	55
EECP4231	Micro Computer Engineering	Major Requirement	3	2	0	67
ITSE3103P	Advanced Operating Systems For Engineering Lab	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
BAEB4200	Management Information System	College Elective	3	1	4	55
EEIE4212	Telecommunication Networks	Major Requirement	3	2	0	67
EECP4282	Computer Aided Digital Design	Major Requirement	3	2	0	67
EEIE4212P	Telecommunication Networks Lab	Major Requirement	0	0	2	67
EECP4238P	Internet Technology Pract.	Major Requirement	0	0	2	67
EECP4299A	B. Tech Project I	Major Requirement	3	0	6	67
EECP4238	Internet Technology	Major Requirement	3	2	0	67
EECP4282P	Computer Aided Digital Design Lab	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EECP4350	Introduction To Robotics	Major Requirement	3	2	0	67
EECP4350P	Introduction To Robotics Pract.	Major Requirement	0	0	2	67
EECP4399	B. Tech Project II	Major Requirement	3	0	6	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

## 10.2. Electrical Engineering

### 10.2.1. Diploma (Second year)

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH2100N	Calculus II	Departmental Requirements	3	3	0	60
EEPW2150	Electrical Principles	Major Requirement	3	2	0	67
ENGL2100	Technical Communication	College Requirement	3	3	0	55
EETE2102	Electronics I	Major Requirement	3	2	0	67
EERE2201	Renewable Energy	College Requirement	3	3	0	55
EEPW2150P	Electrical Principles Pract	Major Requirement	0	0	2	67
EETE2102P	Electronics I Lab	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
PHIL3108	Business Ethics	Major Requirement	3	2	2	55
EEPW2251	Electrical Power Technology	Major Requirement	3	2	0	67
EEPW2241	Electrical Skills	Major Requirement	3	0	6	67
EETE2270	Fundamentals Of Digital Electronics	Major Elective	3	2	2	67
EECP2270P	Digital Electronics Pract	Major Requirement	0	0	2	67
EEPW2251P	Electrical Power Technology Pract	Major Requirement	0	0	2	67
EETE2270P	Fundamentals Of Digital Electronics Pract.	Major Elective	0	0	2	67
EECP2270	Digital Electronics	Major Elective	3	2	2	67
EEPW2252P	Electrical Power Systems Lab	Major Requirement	0	0	2	67
EEPW2241P	Electrical Skills Pract	Major Requirement	0	0	4	67
EEPW2252	Electrical Power Systems	Major Requirement	3	2	0	67
EETE2210P	Telecommunications I Pract	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>18</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEPW2399	Diploma Project	Major Requirement	3	0	6	67
EEPW2320	Instrumentation & Measurement Techniques	Major Requirement	3	2	0	67
EEPW2320P	Instrumentation & Measurement Techniques Lab	Major Requirement	0	0	4	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

## 10.2.2. Advance Diploma

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH3120N	Engineering Mathematics	Departmental Requirements	3	3	0	60
EET3102N	Electronics II	Major Requirement	3	2	0	67
EEPW3142	Electrical Installation & Wiring Design	Major Requirement	3	1	0	67
EET3102NP	Electronics II Prac.	Major Requirement	0	0	2	67
EEPW3150P	Power Distribution Systems Pract	Major Requirement	0	0	2	67
EEPW3150	Power Distribution Systems	Major Requirement	3	2	0	67
EEPW3142P	Electrical Installation & Wiring Design Pract	Major Requirement	0	0	4	67
PHIL3201	Formal Arabic Communication	College Requirement	3	3	0	55
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEPW3257	Power Electronics	Major Requirement	3	2	0	67
ENGL3100	Public Speaking	College Requirement	3	2	2	55
EEPW3152	Power System Analysis	Major Requirement	3	2	0	67
EEPW3257P	Power Electronics Pract	Major Requirement	0	0	2	67
EEPW3152P	Power System Analysis Pract	Major Requirement	0	0	2	67
EEPW3200	Control Systems	Major Requirement	3	2	0	67
EEPW3258	Machines & Drives	Major Requirement	3	2	0	67
EEPW3258P	Machines & Drives Pract	Major Requirement	0	0	2	67
EEPW3200P	Control Systems Pract	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEPW3300	Energy Conversion Systems	Major Requirement	3	2	0	67
EEPW3399	Higher Diploma Project	Major Requirement	3	0	6	67
EEPW3300P	Energy Conversion Systems	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

### 10.2.3. Bachelors

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEPW4180	Numerical Methods In Power Systems	Major Requirement	3	2	0	67
EEPW4180P	Numerical Methods In Power Systems Pract	Major Requirement	0	0	2	67
PHIL4101	Oman Civilization	College Requirement	3	3	0	55
EECP4192PN	Software Engineering Lab	Major Requirement	0	0	2	67
EEPW4153	Transient System Stability	Major Requirement	3	2	0	67
EECP4192N	Software Engineering & High Level Programming	Major Requirement	3	2	0	67
MATH4130	Probability & Statistics	Departmental Requirments	3	3	0	60
EEPW4153P	Transient System Stability Lab	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEPW4259	High Voltage Engineering	Major Requirement	3	2	0	67
EEPW4259P	High Voltage Engineering Lab	Major Requirement	0	0	2	67
EEPW4254	Switch Gear & Protection	Major Requirement	3	2	0	67
EECP3171P	Microprocessors Systems And Interfacing Pract	Major Requirement	0	0	2	67
EECP3171	Microprocessors Systems And Interfacing	Major Requirement	3	2	0	67
EEPW4254P	Switch Gear & Protection Lab	Major Requirement	0	0	2	67
EEPW4256	Power Stations	Major Requirement	3	2	0	67
EEPW4299A	B. Tech Project I	Major Requirement	3	0	6	67
EEPW4256P	Power Stations Lab	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEPW4399	B. Tech Project II	Major Requirement	3	0	6	67
EEPW4355	Power System Operation & Reliability	Major Requirement	3	2	0	67
EEPW4355P	Power System Operation & Reliability Pract.	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

### 10.3. Electronics & Communications Engineering

#### 10.3.1. Diploma (Second year)

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH2100N	Calculus II	Departmental Requirements	3	3	0	60
EEPW2150	Electrical Principles	Major Requirement	3	2	0	67
EERE2201	Renewable Energy	College Requirement	3	3	0	55
EEPW2150P	Electrical Principles Pract	Major Requirement	0	0	2	67
EETE2102P	Electronics I Lab	Major Requirement	0	0	2	67
EETE2102	Electronics I	Major Requirement	3	2	0	67
ENGL2100	Technical Communication	College Requirement	3	3	0	55
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EETE2210	Telecommunications I	Major Requirement	3	2	0	67
EETE2270	Fundamentals Of Digital Electronics	Major Elective	3	2	2	67
EETE2201	Cable And Fiber Splicing	Major Requirement	3	1	0	67
EETE2200	Electronics Skills	Major Requirement	3	0	6	67
EETE2210P	Telecommunications I Pract	Major Requirement	0	0	2	67
EETE2200P	Electronics Skills Pract	Major Requirement	0	0	4	67
PHIL3108	Business Ethics	College Requirement	3	2	2	55
EETE2270P	Fundamentals Of Digital Electronics Pract.	Major Elective	0	0	2	67
EECP2270	Digital Electronics	Major Elective	3	2	2	67
EETE2201P	Cable And Fiber Splicing Pract	Major Requirement	0	0	4	67
EECP2270P	Digital Electronics Pract	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>18</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EETE2320	Instrumentation And Measurment Techniques	Major Requirement	3	2	0	67
EETE2399	Diploma Project	Major Requirement	3	0	6	67
EETE2320P	Instrumentation And Measurement Techniques Lab	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

### 10.3.2. Advance Diploma

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EETE3102N	Electronics II	Major Requirement	3	2	0	67
EECP3171	Microprocessors Systems And Interfacing	Major Requirement	3	2	0	67
EETE3110	Signals & Sytems	Major Requirement	3	2	0	67
EETE3190	Electromagnetic Field Theory	Major Requirement	3	3	0	67
MATH3120N	Engineering Mathematics	Departmental Requirments	3	3	0	60
EECP3171P	Microprocessors Systems And Interfacing Pract	Major Requirement	0	0	2	67
EETE3110P	Signal & Systems Pract	Major Requirement	0	0	2	67
EETE3102NP	Electronics II Prac.	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EECP3180	Computer Networks	Major Requirement	3	1	0	67
EETE3220	Digital Signal Processing	Major Requirement	3	2	0	67
EETE3211	Telecommunications II	Major Requirement	3	2	0	67
EECP3281	Unix System Administration (Linux)	Major Requirement	3	1	0	67
EECP3180P	Computer Networks Pract	Major Requirement	0	0	4	67
EETE3211P	Telecommunications II Pract	Major Requirement	0	0	2	67
EECP3281P	Unix System Administration (Linux) Pract	Major Requirement	0	0	4	67
EETE3220P	Digital Signal Processing Pract	Major Requirement	0	0	2	67
ENGL3100	Public Speaking	College Requirement	3	2	2	55
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
PHIL3201	Formal Arabic Communication	College Requirement	3	3	0	55
EETE3399	Higher Diploma Project	Major Requirement	3	0	6	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

### 10.3.3. Bachelors

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EECP4192PN	Software Engineering Lab	Major Requirement	0	0	2	67
EETE4130	Microwave Engineering	Major Requirement	3	2	0	67
EETE4140	Linear Integrated Circuits	Major Requirement	3	2	0	67
EETE4130P	Microwave Engineering Lab	Major Requirement	0	0	2	67
PHIL4101	Oman Civilization	College Requirement	3	3	0	55
EECP4192N	Software Engineering & High Level Programming	Major Requirement	3	2	0	67
MATH4130	Probability & Statistics	Departmental Requirments	3	3	0	60
EETE4140P	Linear Integrated Circuits Pract.	Major Requirement	0	0	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
BAEB4200	Management Information System	College Elective	3	1	4	55
EETE4220	Digital Communications & Switching	Major Requirement	3	2	0	67
EETE4220P	Digital Communications & Switching Pract.	Major Requirement	0	0	2	67
EETE4299A	B. Tech Project I	Major Requirement	3	0	6	67
EETE4212P	Telecommunication Networks Lab	Major Requirement	0	0	2	67
EETE4231P	Antennas And Propagation Lab	Major Requirement	0	0	2	67
EETE4231	Antennas And Propagation	Major Requirement	3	2	0	67
EETE4212	Telecommunication Networks	Major Requirement	3	2	0	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EETE4399	B. Tech Project II	Major Requirement	3	0	6	67
EETE4300	Radar Systems	Major Requirement	3	3	0	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

## 10.4. Biomedical Engineering

### 10.4.1. Diploma (Second year)

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH2100N	Calculus I I	Departmental Requirements	3	3	0	60
EEBM2101	Basics of Electrical & Electronic Engineering	Major Requirement	3	1	4	67
ENGL2100	Technical Communication	College Requirement	3	3	0	55
ASBM2101	Anatomy & Physiology	Major Requirement	3	2	2	67
EERE2201	Renewable Energy	College Requirement	3	3	0	55
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
PHIL3108	Business Ethics	College Requirement	3	2	2	55
EEBM2200	Digital Electronics& Circuits	Major Requirement	3	1	4	67
MIBM2210	Health, Safety & Environment	Major Requirement	3	1	4	67
EEBM2202	Electrical, Electronics & Mechanical Skills	Major Requirement	3	0	6	67
ASBM2201	Biochemistry, Hematology, Pathology & Microbiology	Major Requirement	3	2	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEBM2399	Diploma Project	Major Requirement	3	0	6	67
EEBM2301	Biomedical Equipments & Safety I	Major Requirement	3	1	4	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			



### 10.4.2. Advance Diploma

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH3120N	Engineering Mathematics	Departmental Requirments	3	3	0	60
EECP3171P	Microprocessors Systems And Interfacing Pract	Major Requirement	0	0	2	67
EECP3171	Microprocessors Systems And Interfacing	Major Requirement	3	2	0	67
EEBM3101	Signals & Systems	Major Requirement	3	2	2	67
PHIL3201	Formal Arabic Communication	College Requirement	3	3	0	55
MIMT3104	Pneumatics & Hydraulics	Major Requirement	3	2	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EETE3220	Digital Signal Processing	Major Requirement	3	2	0	67
EETE3220P	Digital Signal Processing Pract	Major Requirement	0	0	2	67
ENGL3100	Public Speaking	College Requirement	3	2	2	55
MIMT2201	Basics Of Mechatronics Engineering	Major Requirement	3	2	2	67
EEBM3201	Biomedical Equipments & Safety II	Major Requirement	3	1	4	67
EEBM3202	Medical Imaging Systems	Major Requirement	3	2	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEBM3301	Physiotherapy & Rehabilitation	Major Requirement	3	2	2	67
EEBM3399	Advanced Diploma Project	Major Requirement	3	0	6	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

### 10.4.3. Bachelors

Semester	Semester 1					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
MATH4130	Probability & Statistics	Departmental Requirments	3	3	0	60
EEBM4101	Hospital System Management	Major Elective	3	2	2	67
EEBM4102	Laser & Fiber Optics	Major Requirement	3	2	2	67
EECP3180P	Computer Networks Pract	Major Requirement	0	0	4	67
EECP3180	Computer Networks	Major Requirement	3	1	0	67
PHIL4101	Oman Civilization	College Requirement	3	3	0	55
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 2					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEBM4201	Biomaterials	Major Requirement	3	2	2	67
EEBM4202	Industrial & Project Management	Major Requirement	3	2	2	67
EEBM4299	B. Tech Project I	Major Requirement	3	1	4	67
EEPW3257P	Power Electronics Pract	Major Requirement	0	0	2	67
EEPW3257	Power Electronics	Major Requirement	3	2	0	67
EEBM4203	Electromagnetic Interference & Compatability	Major Elective	3	2	2	67
		<b>Semester Credit Hrs :</b>	<b>15</b>			
Semester	Semester 3					
Course No	Course Name	Course Type Name	Credit Hrs	Theory Hrs	Practical Hrs	Passing Grade
EEBM4301	Advanced Biomedical Equipment	Major Requirement	3	2	2	67
EEBM4399	B. Tech Project II	Major Requirement	3	0	6	67
		<b>Semester Credit Hrs :</b>	<b>6</b>			

## XI. THE RESEARCH COUNCIL (TRC)

- TRC is Oman's exclusive research funding body and leader of research development in the country.
  - TRC serves and encourages in promoting and supporting research, scientific enquiry and innovation in the Sultanate of Oman.
  - At the heart of our work is nurturing research talent to power innovation and create economic benefit for our national prosperity.
  - TRC was established in June 2005, TRC has been founded by Royal Decree No. 54/2005 under the Chairmanship of His Highness Sayyid Shihab Bin Tariq Al-Said, adviser to His Majesty the Sultan.
  - This was notably followed in 2010 by Royal Decree No.30/2010 with TRC set to lead the way in drawing up a national plan for scientific research in the Sultanate.
  - The research conducted in Oman should further the public good with commitment to the spread and transfer of knowledge.
  - TRC is a research platform that can be used by students and researchers to contribute and disseminate knowledge to the economic, scientific and social development of the country.
  - There are various programs under this council giving grants for research like '**FURAP**' [**Faculty Mentored Undergraduate Research Award Program**] for students after completion of Diploma I Year.
  - Further, the essential details like eligibility criteria, project submission details, evaluation criteria, grants can be found on the below links.
  - The students' and teachers' are advised to go through the below link to identify the necessary details to make use of the available resources to enhance and enrich the research skills and contribute positively towards the development of Sultanate of Oman.
  - TRC Website: <http://www.hct.edu.om/trc-resources>
- TRC Website: <https://home.trc.gov.om/tabid/40/language/en-US/Default.aspx>
- FURAP Website: <http://www.hct.edu.om/about/the-college/announcements/furap-4>