

Study Plan of Bachelor in Telecommunication Engineering Program



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Curriculum Overview

Total Units: 135 Credit units (including lectures and labs)

Total Contact Hours: **248**

Overall Number of Semesters: **8**

Overall Number of Courses: **48**

Credit Unit Calculation: Credits Unites & Contact Hours

Our curriculum follows the academic credit system:

- **Lecture Hours:** The weekly contact time with the course instructor.
- **Laboratory / Practical Hours:** The lab time including the instructor supervision.
- **Credit Hours:** one credit hour is the equivalent of one hour of lecture time with a minimum of two out-of-class study hours. Lab hours are credited at 0.25–0.50 credit hours for each lab hour. A simple relation to estimate the credits is to add the contact hours and out-of-class study hours and divide by three.
 - **Credit units** = Weekly lecture/lab hours + minimum out-of-class study hours
 - **Lectures:** Each contact hour is accompanied with a minimum of 2 out-of-class study hours.
 - **Labs / Practical:** Each lab hour is accompanied with 1 additional hour.

Courses Breakdown:

- **General Courses: 45** credit units, **48** contact hours
 - Discipline lectures: **27** credit unites, **28** contact hours.
 - Labs: **2** credit unites, **3** contact hours.
 - University requirements: **17** credit units, **17** contact hours.
- **Program Courses: 90** credit units, **99** contacts hours.
 - Discipline lectures: **84** credit units, **87** contact hours.
 - Labs: **6** credit units, **12** contact hours.
 - University requirements: ___ hours.

This curriculum applies to the cohort of students who began the **Telecommunications Engineering program** in **202--**.

- **Update History:**
- **V1: 2024/09/24** – Initial version released for the cohort who started at the program in Spring 2024.
- **V2: 2026/09/26** – Course codes updated.

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General Courses

Year 1 – Semester 1							
No.	Old Code	N. Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	61155	2GE101	Engineering Mathematics I	4	4	/	/
2	61157	2GU110	Arabic Language	2	2	/	/
3	61150	2GU115	English I	3	3	/	/
4	61151	2SW101	IT Foundations	3	3	/	/
5	61152	2SW160	Programming I	3	4	/	/
Total				15	16		

Year 1 – Semester 2							
No.	Old Code	N. Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	61255	2GE102	Engineering Mathematics II	4	4	2GE101	/
2	62252	2GE151	Engineering Physics	4	4	/	/
3	/	2GE161	Engineering Physics Lab	2	3	/	2GE151
4	61250	2GU116	English II	3	3	2GU115	/
5	61156	2GU121	Probability and Statistics	3	3	/	/
6	61252	2SW103	Programing II	3	4	2SW160	/
7	61257	2NC101	Introduction to Computer Networking	3	3	2SW101	/
Total				22	24		

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Telecommunications Engineering Discipline Courses

Year 2 – Semester 3							
No.	Old Code	N. Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	62110	2GE211	Differential Equations	4	4	2GE102	/
2	62110	2GU215	Communication Skills	2	2	20 Cr. Hrs.	/
3	62151	2TC231	Introduction to Telecommunication Engineering	4	4	/	/
4	62203	2TC233	Digital Logic Design	3	3	/	/
5	62204	2TC234	Digital Logic Design Lab	1	2	/	2TC233
6	62152	2TC235	Artificial Intelligence	3	3	2GU121	/
Total				17	18		

Year 2 – Semester 4							
No.	Old Code	N. Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	63112	2GE212	Technical Writing	2	3	/	/
2	63261	2GE221	Linear Algebra	4	4	2GE102	/
3	62210	2TC241	Signals and Systems Theory	3	3	2GE211	/
4	62201	2TC242	Electrical Circuit Analysis	4	4	2GE102 2GE151	/
5	62202	2TC243	Electrical Circuits Analysis Lab	1	2	/	2TC242
6	62103	2TC244	Electromagnetic Field and Waves	4	4	2GE102 2GE151	/
Total				18	20		

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Year 3 – Semester 5							
No.	Old Code	N. Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	63131	2TC351	Electronic Circuits	4	4	2TC242	/
2	63132	2TC352	Electronic Circuits Lab.	1	2	/	2TC351
3	63131	2TC353	Control Systems	3	3	2TC241	/
4	63144	2TC354	Communications Systems	4	4	2TC241	/
5	63145	2TC355	Communications Systems Lab	1	2	/	2TC354
6	63133	2TC356	Microcontrollers & Embedded Systems	3	3	2TC233 2SW101	/
Total				16	18		

Year 3 – Semester 6							
No.	Old Code	N. Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	63253	2GU415	Research Methods	2	2	75 Cr. Hrs.	/
2	63244	2TC361	Digital Communications	4	4	2TC354	/
3	63245	2TC362	Digital Communications Lab.	1	2	/	2TC361
4	63210	2TC363	Digital Signal Processing	3	4	2TC241	/
5	64152	2TC364	Antenna and Propagation	3	3	2TC244 2TC354	/
6	64141	2TC365	Internship	1	1	/	/
Total				14	16		

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Year 4 – Semester 7							
No.	Old Code	N. Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	64277	2GE402	Engineering Project Management	2	3	/	/
2	/	2GE432	Ethics	2	2	/	/
3	64255	2TC471	Data Communications & Networks	3	3	2NC101	/
4	64256	2TC472	Data Communications & Network Lab	1	2	/	TCE1471
5	63124	2TC473	Wireless Communications	4	4	2TC361	/
6			Approved Technical Elective (I)	3	3	/	/
7	64101	2TC475	Final Project I	2	2	95 Cr. Hrs.	/
Total				17	19		

Year 4 – Semester 8							
No.	Old Code	N.Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	64278	2GU400	Critical Thinking	2	2	/	/
2	64146	2TC481	Microwave Transmission Systems	3	3	2TC244 2TC354	/
3	64220	2TC482	Fiber-Optic Communications	4	4	2TC361	/
4			Approved Technical Elective (II)	3	3	/	/
5		2TC485	Final Project II	4	4	2TC475	/
Total				16	16		

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Approved Technical Elective							
No.	Old Code	Code	Course Title	Credits	Hours	Prerequisite	Corequisite
1	64146	2TC400	Digital Image Processing	3	3	2TC241 2TC361 2TC363	/
2	64220	2TC401	Communication Network Security	3	3	2GE211 2TC471	/
3	63221	2NC204	Security Principles and Practices	3	3	2NC101	/
4		2MT312	Microcontrollers & Embedded Systems II	3	3	2TC233	/
5	/	2TC404	Introduction to Satellite Communications	3	3	2TC473	/
6	64222	2TC405	Biomedical Electronics and Instrumentation	3	3	2TC353 2TC356	/
7	/	2NC365	Internet of Things IOT	3	3	2TC356	/
8	/	2TC407	AI in Telecommunications	3	3	2TC232	/
9	64404	TCE409	5G Networks	3	3	/	/
10	/	2NC364	Wireless Networks Security	3	3	2TC473	

Overall Number of	Semesters	Courses	Credits	Hours	Labs	Industrial Training
	8	48	135	248	7	Equivalent to 15 Cr.hrs

	Credits	Percentage
University Course Requirements (General Education)	17	12.59%
School Course Requirements	28	20.74%
Department Course Requirements	90	66.66%
Overall	135	100%