

الهندسة الكهربائية:

● برنامج هندسة الاتصالات

1- المواد المطلوب إنجازها:-

Preparatory Phase (Minimum 36 credits and one summer training course)

1. Basic Subjects : (Compulsory 30 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
MATH 101	Mathematics (I)		3	2	2	-
MATH 102	Mathematics (II)	MATH 101	3	2	2	-
BENG 103	Mechanics (I)		3	2	2	-
BENG 104	Mechanics (II)		3	2	2	-
BENG 105	Production Engineering (I)		3	2	-	4
CHM 106	Chemistry (I)		3	2	2	1
PHY 107	Physics (I)		3	2	2	1
PHY 108	Physics (II)		3	2	2	1
COMP 109	Introduction to Computer Programming		2	1	1	2
BENG 110	Engineering Drawing (I)		2	1	-	3
BENG 111	Engineering Drawing (II)	BENG 110	2	1	-	3

2. Basic Subjects : (Elective 2 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
CHM 112	Chemistry (II)	CHM 106	2	1	1	2
COMP 113	Computer Programming	COMP 109	2	1	1	2
BENG 114	Production Engineering (II)	BENG 105	2	1	2	2

3. Humanity& Language Courses : (Compulsory 4 credits)

Code	Course title	.Pre. Req	Credits	.Lec	.Ex	.Lab
HUM 115	History of Engineering		2	2	-	-
LNG 116	(Technical English (I		2	2	-	-
LNG 117	(Technical English (II	LNG 116	2	2	-	-

4. Summer Training: (One complete training period – 5 credits)

STR (I)	Computer& workshop skills		5	-	-	60
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**B.Sc. In Electrical Engineering
(Basic phase)**

(Communications Engineering)

(Minimum 70 credits and two summer training courses)

1. Basic Subjects : (Compulsory 52 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
ELTE 201	Mathematics (III)	MATH 102	3	2	2	-
ELTE 202	Mathematics (IV)	ELTE 201	3	2	2	-
ELTE 203	Mathematics (V)	ELTE 202	3	2	2	-
ELTE 204	Engineering Mechanics	BENG 104	3	2	2	1
ELTE 205	Digital Systems		3	2	1	2
ELTE 206	Logic Circuits	ELTE 205	3	2	1	2
ELTE 207	Electromagnetic Fields	PHY 108	3	2	1	2
ELTE 208	Digital Signal Processing	ELTE 202	3	2	1	2
ELTE 209	Electrical circuits	PHY 108	3	2	2	2
ELTE 210	Solid state Electronic circuits	ELTE 209	4	2	3	2
ELTE 211	Electric Engineering Testing	ELTE 209	3	2	1	2
ELTE 212	Computer Application		3	2	1	2
ELTE 213	Electronic Engineering	ELTE 210	3	2	1	2
ELTE 214	Communication Systems (I)	ELTE 202	3	2	1	2
ELTE 215	Communication Systems (II)	ELTE 214	3	2	1	2
ELTE 216	Electromagnetic Principles	ELTE 207	3	2	1	2
ELTE 217	Electronic Circuits	ELTE 213	3	2	1	2

2. Basic Subjects : (Elective 14 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
ELTE 218	Electronic Engineering Testing	ELTE 210	2	1	1	2
ELTE 219	Computer Organization	ELTE 206	3	2	1	2
ELTE 220	Civil Engineering		3	2	1	2
ELTE 221	Analogue & Digital Circuit Design	ELTE 217	3	2	1	2
ELTE 222	Theory of Machines & Design	BENG 104	4	3	2	-
ELTE 223	Manufacture Technology	BENG 105	3	2	1	2

ELTE 224	System Dynamics & Control Component		3	2	1	2
ELTE 225	Instrumentations	ELTE 211	3	2	1	2

3. Humanity & Language Courses : (Compulsory 4 credits)

Code	Course title	.Pre. Req	Credits	.Lec	.Ex	.Lab
ELTE 226	Technical Report Writing		2	2	-	-
ELTE 227	Legislations		2	2	-	-
ELTE 228	Industrial Psychology		2	2	-	-

4. Summer Training: (Two complete training period – 10 credits)

STR (II)	Field general training	STR (I)	5	-	-	60
STR (III)	Factories & Practical training	STR (II)	5	-	-	60

B.Sc. In Electrical Engineering ***(Specialized phase)***

(Communications Engineering)

(Minimum 65 credits and one summer training course)

1. Specialized Engineering Courses : (Compulsory 47 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
ELTE 301	Data Base Management		2	1	-	3
ELTE 302	Electric Power & Machines		3	2	1	2
ELTE 303	Micro processor Systems	ELTE 214	3	2	1	2
ELTE 304	Control Systems (I)	ELTE 202	3	2	1	2
ELTE 305	Control Systems (II)	ELTE 304	3	2	1	2
ELTE 306	Electromagnetic Waves	ELTE 216	3	2	1	2
ELTE 307	Optical electronics	ELTE 313	3	2	1	2
ELTE 308	Microwaves Electronic Engineering	ELTE 306	3	2	1	2
ELTE 309	Integrated Circuits	ELTE 217	3	2	1	2
ELTE 310	Antennas & Waves Propagation	ELTE 308	3	2	1	2
ELTE 311	Communication Networks	ELTE 312	3	2	1	2
ELTE 312	Digital Communications	ELTE 215	3	2	1	2
ELTE 313	Optical Communication systems	ELTE 307	3	2	2	-
ELTE 314	Satellite Communications		3	2	1	2
ELTE 315	Mobile Phones Systems		3	2	2	-
ELTE 316	Radar Engineering Systems		3	2	2	-

2. Specialized Engineering Courses : (Elective 6 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
ELTE 317	Advanced Automatic Control	ELTE 305	3	2	1	2
ELTE 318	Industrial Electronics	ELTE 217	3	2	1	2

ELTE 319	Robot systems and Technology		3	2	1	2
ELTE 320	Neuro Networks		3	2	2	-
ELTE 321	Expert Systems		3	2	2	-
ELTE 322	Artificial Intelligence		3	2	2	-
ELTE 323	Programmable Logic Controller	ELTE 206	3	2	2	-

3. B.Sc Projects : (Compulsory 8 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
ELTE 324	B.Sc. Project Premium		3	-	4	-
ELTE 325	B.Sc. Project	ELTE 324	5	1	3	8

4. Humanity& Language Courses : (Compulsory 4 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
ELTE 326	Engineering Economics		2	2	1	-
ELTE 327	Feasibility Studies		2	2	-	-
ELTE 328	Environmental Impact of Communication Systems		2	2	-	-

5. Summer Training: (One complete training period – 5 credits)

Code	Course title	Pre. Req.	Credits	Lec.	Ex.	Lab.
STR (IV)	Field training	STR (III)	5	-	-	60