

Lampiran : Surat Keputusan Dekan Fakultas Teknik Universitas Bhayangkara Surabaya
 Nomor : KEP/ /FTK/02/2024
 Tanggal : 19 Februari 2024
 Tentang : Kurikulum Berbahasa Inggris Program Studi Teknik Elektro

**CURRICULUM OF ELECTRICAL ENGINEERING STUDY PROGRAM
 FACULTY OF ENGINEERING - UNIVERSITAS BHAYANGKARA SURABAYA**

SEMESTER I			
NO.	CODE	COURSES	CREDIT
1	TE10101	RELIGION	2
2	TE10301	ENGINEERING MATHEMATICS I	3
3	TE10302	BASIC PHYSICS	3
4	TE10303	CHEMISTRY OF ELECTRICAL MATERIALS	3
5	TE10304	BASIC PROGRAMMING	2
6	TE10201	POLICE LAW	2
7	TE10102	STATE IDEOLOGY	2
8	TE10305	DIGITAL ELECTRONICS	2
9	TE10306	BASIC PROGRAMMING LAB.	1
		THE NUMBER OF CREDITS	20

REQUIREMENT COURSES
N.A.

SEMESTER II			
NO.	CODE	COURSES	CREDIT
1	TE20103	CITIZENSHIP	2
2	TE20307	ENGINEERING MATHEMATICS II	3
3	TE20308	APPLIED PHYSICS I	3
4	TE20309	NUMERICAL ANALYSIS	2
5	TE20310	ELECTRICAL ENERGY CONVERSION	2
6	TE20311	APPLIED PHYSICS II	3
7	TE20312	DATA COMMUNICATION	2
8	TE20313	ELECTRICAL ENERGY CONVERSION LAB.	1
9	TE20314	DIGITAL ELECTRONICS LAB.	1
		THE NUMBER OF CREDITS	19

REQUIREMENT COURSES
N.A.
ENGINEERING MATHEMATICS I (TE10301)
N.A.
N.A.
N.A.
BASIC PHYSICS (TE10302)
N.A.
N.A.
N.A.

SEMESTER III

NO.	CODE	COURSES	CREDIT
1	TE30315	ELECTRONIC CIRCUITS I	2
2	TE30316	ENGINEERING MATHEMATICS III	3
3	TE30317	ELECTRIC CIRCUITS	3
4	TE30318	ENGINEERING DRAWING	2
5	TE30319	LINEAR SYSTEMS	3
6	TE30320	ELECTROMAGNETIC FIELD	3
7	TE30321	SENSOR TECHNOLOGY AND DATA ACQUISITION	2
8	TE30322	STATISTICS, PROBABILITY AND STOCHASTICS	3
9	TE30323	ELECTRIC CIRCUITS LAB.	1
		THE NUMBER OF CREDITS	22

REQUIREMENT COURSES
ENGINEERING MATHEMATICS II (TE20307)
ENGINEERING MATHEMATICS II (TE20307)
APPLIED PHYSICS I (TE20308)
N.A.
ENGINEERING MATHEMATICS II (TE20307)
APPLIED PHYSICS II (TE20311)
N.A.
ENGINEERING MATHEMATICS II (TE20307)

SEMESTER IV

NO.	CODE	COURSES	CREDIT
1	TE40324	ELECTRONIC CIRCUITS II	2
2	TE40325	DISCRETE MATHEMATICS	3
3	TE40326	POWER ELECTRONICS	3
4	TE40327	MICROPROCESSOR	3
5	TE40328	CONTROL SYSTEM I	2
6	TE40329	WIRELESS NETWORKS AND IoT	2
7	TE40330	SIGNAL PROCESSING SYSTEMS	2
8	TE40331	ELECTRONIC CIRCUITS LAB.	1
9	TE40332	POWER ELECTRONICS LAB.	1
10	TE40333	SIGNAL PROCESSING SYSTEMS LAB.	1
		THE NUMBER OF CREDITS	20

REQUIREMENT COURSES
ELECTRONIC CIRCUITS I (TE30315)
ENGINEERING MATHEMATICS III (TE30316)
ELECTRONIC CIRCUITS I (TE30315)
DIGITAL ELECTRONICS (TE10305)
N.A.
DATA COMMUNICATION (TE20312)
ENGINEERING MATHEMATICS III (TE30316)

SEMESTER V

NO.	CODE	COURSES	CREDIT
1	TE50334	ANALOG ELECTRONICS	2
2	TE50335	MICROCONTROLLER SYSTEM	2
3	TE50336	CONTROL SYSTEM II	2
4	TE50337	ELECTRIC MACHINES	3
5	TE50338	ELECTRICAL INSTALLATION	2
6	TE50339	CONTROL SYSTEM LAB.	1
7	TE50340	MICROPROCESSOR LAB.	1
		MAJOR FIELD COURSES	8
		THE NUMBER OF CREDITS	21

REQUIREMENT COURSES
ELECTRONIC CIRCUITS II (TE40324)
MICROPROCESSOR (TE40327)
CONTROL SYSTEM I (TE40328)
ELECTROMAGNETIC FIELD (TE30320)
ELECTRIC CIRCUITS (TE30317)

MAJOR FIELD COURSES: ELECTRICAL POWER SYSTEM

NO.	CODE	COURSES	CREDIT
1	TE50341	POWER SYSTEM ANALYSIS I	3
2	TE50342	PROTECTION SYSTEM	3
3	TE50343	HIGH VOLTAGE ENGINEERING	2

REQUIREMENT COURSES
ELECTRIC CIRCUITS (TE30317)
ELECTRIC CIRCUITS (TE30317)
ELECTRIC CIRCUITS (TE30317)

MAJOR FIELD COURSES: ELECTRONICS

NO.	CODE	COURSES	CREDIT
1	TE50344	MECHATRONICS	3
2	TE50345	IMAGE PROCESSING	3
3	TE50346	INDUSTRIAL OPTIMIZATION	2

REQUIREMENT COURSES
SENSOR TECHNOLOGY AND DATA ACQUISITION (TE30321)
BASIC PROGRAMMING (TE10304)
BASIC PROGRAMMING (TE10304)

SEMESTER VI

NO.	CODE	COURSES	CREDIT
1	TE60104	INDONESIAN	2
2	TE60347	INDUSTRIAL CONTROL	3
3	TE60348	ARTIFICIAL INTELEGENT	2
4	TE60349	DIGITAL SYSTEM DESIGN	2
5	TE60350	ELECTRIC POWER SYSTEM EQUIPMENT	2
6	TE60351	ELECTRIC MACHINES LAB.	1
		MAJOR FIELD COURSES	8
		THE NUMBER OF CREDITS	20

REQUIREMENT COURSES
N.A.
CONTROL SYSTEM II (TE50336)
BASIC PROGRAMMING (TE10304)
DIGITAL ELECTRONICS (TE10305)
ELECTRICAL INSTALLATION (TE50338)

MAJOR FIELD COURSES: ELECTRICAL POWER SYSTEM

NO.	CODE	COURSES	CREDIT
1	TE60352	POWER SYSTEM ANALYSIS II	3
2	TE60353	ENERGY SYSTEMS MANAGEMENT	2
3	TE60354	INDUSTRIAL ELECTRICAL SYSTEMS	2
4	TE60355	POWER QUALITY IMPROVEMENT	2
5	TE60356	ELECTRIC POWER SYSTEM OPERATION	3

REQUIREMENT COURSES
POWER SYSTEM ANALYSIS I (TE50341)
ELECTRIC CIRCUITS (TE30317)
ELECTRIC CIRCUITS (TE30317)
ELECTRIC CIRCUITS (TE30317)
ELECTRIC CIRCUITS (TE30317)

MAJOR FIELD COURSES: ELECTRONICS

NO.	CODE	COURSES	CREDIT
1	TE60357	ROBOTICS	3
2	TE60358	MICRO BASED INTEGRATED MANUFACTURING	2
3	TE60359	ELECTRONIC INSTRUMENTATION SYSTEMS	3

REQUIREMENT COURSES
MECHATRONICS (TE50344)
MICROCONTROLLER SYSTEM (TE50335)
SENSOR TECHNOLOGY AND DATA ACQUISITION (TE30321)

SEMESTER VII

NO.	CODE	COURSES	CREDIT
1	TE70360	RESEARCH METHODOLOGY	2
2	TE70361	JOB TRAINING	2
3	TE70362	ENTREPRENEURSHIP	2
4	TE70363	INDUSTRIAL SUPPORTING APPLICATIONS	4
5	TE70202	ENGLISH I	2
		MAJOR FIELD COURSES	6
		THE NUMBER OF CREDITS	18

REQUIREMENT COURSES
SENSOR TECHNOLOGY AND DATA ACQUISITION (TE30321), BASIC PROGRAMMING (TE10304)
N.A.
N.A.
SENSOR TECHNOLOGY AND DATA ACQUISITION (TE30321), BASIC PROGRAMMING (TE10304)
N.A.

MAJOR FIELD COURSES: ELECTRICAL POWER SYSTEM

NO.	CODE	COURSES	CREDIT
1	TE70364	COMPUTER APPLIED IN POWER SYSTEM	3
2	TE70365	POWER DISTRIBUTION SYSTEM	2
3	TE70366	MOTOR DRIVES	2

REQUIREMENT COURSES
BASIC PROGRAMMING (TE10304)
ELECTRICAL INSTALLATION (TE50338)
ELECTRIC MACHINES (TE50337)

MAJOR FIELD COURSES: ELECTRONICS

NO.	CODE	COURSES	CREDIT
1	TE70367	MACHINE VISION	3
2	TE70368	EMBEDDED SYSTEMS	3

REQUIREMENT COURSES
IMAGE PROCESSING (TE50345)
DIGITAL SYSTEM DESIGN (TE60349)

SEMESTER VIII

NO.	CODE	COURSES	CREDIT
1	TE80369	FINAL PROJECT	4
2	TE80203	COMMUNITY SERVICE PROGRAM	2
3	TE80204	ENGLISH II	2
		THE NUMBER OF CREDITS	8

REQUIREMENT COURSES
RESEARCH METHODOLOGY (TE70360)
N.A.
ENGLISH I (TE70202)

Surabaya, 19 Februari 2024
Dekan,

Dr. Eko Prasetyo, S.Kom., M.Kom