

KURUKSHETRA UNIVERSITY, KURUKSHETRA

(ESTABLISHED BY THE STATE LEGISLATURE ACT XII OF 1956)

('A+' GRADE NAAC ACCREDITED)



Scheme & Syllabus of B.Tech. Degree in Electrical and Computer Engineering (ECO)



(w.e.f. session 2023-24 onwards)

**B.Tech. Electrical and Computer Engineering (ECO)
KURUKSHETRA UNIVERSITY, KURUKSHETRA**

SEMESTER I

S.No.	Course No./Code	Subject	L:T:P	Hours/Week	Credits	Examination Schedule(Marks)				Duration of exam (Hours)
						End Semester Exam	Internal assessment	Practical exam	Total	
1	B23-BSC-101	Semiconductor Physics	3:1:0	4	4	70	30	--	100	3
2	B23-HSM-101	Universal Human Values-II: Understanding Harmony and Ethical Human conduct	3:0:0	3	3	70	30	--	100	3
3	B23-ESC-102	Engineering Graphics and Design	1:0:0	1	1	70	30	--	100	3
4	B23-ESC-104	Basic Electrical Engineering	3:1:0	4	4	70	30	--	100	3
5	B23-BSC-107	Mathematics-I	3:1:0	4	4	70	30	--	100	3
6	B23-BSC-111	Semiconductor Physics Lab	0:0:2	2	1	--	40	60	100	3
7	B23-ESC-106	Engineering Graphics and Design Lab	0:0:4	4	2	--	40	60	100	3
8	B23-ESC-109	Basic Electrical Engineering Lab	0:0:2	2	1	--	40	60	100	3
9	B23-VAC-110	IDEA Workshop	2:0:0	2	1	--	100	--	100	3
10	B23-VAC-112	IDEA Project Workshop	0:0:2	2	1	--	100	--	100	3
11	B23-HSC-102	Design Thinking	0:0:3	3	1.5	-	100	--	100	3
TOTAL				31	23.5	350	570	180	1100	-

Note:

- NCC/NSS/Sports/Yoga/Technical or cultural club/society activities will be joined by students in first year and will be evaluated in 7th semester by the institute based upon continuous evaluation model as per guidelines.

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SEMESTER II

S.No	Course No./ Code	Subject	L:T:P	Hours/ Week	Credits	Examination Schedule(Marks)				Duration of exam (Hours)
						End Semester	Internal assessment	Practical Exam	Total	
1	B23-HSC-101	English for Technical Writing	2:0:0	2	2	70	30	--	100	3
2	B23-ESC-101	Programming for Problem Solving	3:0:0	3	3	70	30	--	100	3
3	B23-BSC-104	Engineering Chemistry	3:0:0	3	3	70	30	--	100	3
4	B23-BSC-108	Mathematics-II	3:1:0	4	4	70	30	--	100	3
5	B23-BSC-106	Biology	3:0:0	3	3	70	30	--	100	3
6	B23-HSC-103	English Language Lab	0:0:2	2	1	--	40	60	100	3
7	B23-ESC-105	Programming for Problem Solving Lab	0:0:2	2	1	--	40	60	100	3
8	B23-ESC-107	Manufacturing Processes Workshop	0:0:3	3	1.5	--	40	60	100	3
9	B23-ESC-114	Engineering Chemistry Lab	0:0:2	2	1	--	40	60	100	3
10	B23-VAC-101	Personality Development and Soft Skills	2:0:0	2	1	--	100	--	100	3
TOTAL				26	20.5	350	410	240	1000	

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Students of Electrical and Computer Engineering are offered to earn **ADDITIONAL 18-20 CREDITS** through MOOCs/SWAYAM courses as per the 'Guidelines to implement the SWAYAM/MOOCs/ other authorized online courses (OAOC) of Kurukshetra University, Kurukshetra' in any of the emerging areas mentioned below for the award of the degree of:

- 1. B.Tech. (Hons.) Electrical and Computer Engineering with Specialization in Electric Vehicles**
- 2. B.Tech. (Hons.) Electrical and Computer Engineering with Specialization in Energy Engineering**
- 3. B.Tech. (Hons.) Electrical and Computer Engineering with Specialization in Artificial Intelligence and Machine Learning**
- 4. B.Tech. (Hons.) Electrical and Computer Engineering with Specialization in Internet of Things (IoT)**
- 5. B.Tech. Electrical and Computer Engineering with Minor Degree in Mechatronics**
- 6. B.Tech. Electrical and Computer Engineering with Minor Degree in VLSI Design**
- 7. B.Tech. Electrical and Computer Engineering with Minor Degree in Genome Engineering and Technology**
- 8. B.Tech. Electrical and Computer Engineering with Minor Degree in Cyber Security**