

Schemes and Syllabus

(For academic session 2023-24 & onwards)

B. Voc. in Electrical



Atal Shiksha Nagar (Kallujhanda), P.O.

Mandhala, Village- Nanakpura,

Pinjore-Nalagarh highway, District- Solan,

Himachal Pradesh- 174103

www.iecuniversity.com

Table of Content

Section	Content	Page no.
1	Program Outcomes and Program Specific Outcomes	3
2	Semester wise Scheme	4
3	Semester wise Syllabus	6

SECTION 1

Program Outcomes and Program Specific Outcomes

Program Outcomes

PO1: Ability to apply the knowledge of mathematics, science and engineering principles for modeling, analyzing and solving electrical and electronics engineering problems.

PO2 : Ability to identify, formulate and analyze real-life electrical and electronics engineering problems..

PO3: Ability to design and develop solutions for real-life electrical and electronics engineering problems.

PO5: Ability to design and develop sophisticated equipment and experimental systems for carrying out detailed investigation to multifaceted electrical and electronics engineering problems.

PO6: Ability to develop and utilize modern tools for modelling, analyzing and solving electrical and electronics engineering problems..

PO7: Dedication to work as an electrical or electronics engineer who is capable of identifying solutions to various local and global problems faced by the society.

PO8: Ability to design and develop modern systems for the upkeep of pollution free environment.

PO9: Willingness and ability to upkeep professional ethics and social values.

PO10: Willingness and ability to think independently, take initiative and lead a team of engineers or researchers.

PO11: Ability to express ideas clearly and communicate orally as well as in writing with others.

PO12: Willingness and ability to take up administrative responsibilities involving both project and financial management confidently.

Program Specific Outcomes

PSO1: Provide effective solutions in the fields of Power Electronics, Power Systems and Electrical Machines.

PSO2: Design and Develop various Electrical and Electronics Systems, particularly Renewable Energy Systems.

PSO3: Install and maintain different Electric Equipments.

PSO4: Demonstrate the overall knowledge and contribute for the betterment of the society.

SECTION 2

Semester wise Scheme

First Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
B. Voc. Electrical-101	Basics of Computer	4	-	-	4	4	40	60	100
B. Voc. Electrical -102	Electrical Circuits	4	-	-	4	4	40	60	100
B. Voc. Electrical -103	Electrical Machine - I	4	-	-	4	4	40	60	100
B. Voc. Electrical -104	OJT-I (On Job Training NSQF Level-4)	-	-	36	36	18	300	200	500
	TOTAL	12	-	36	48	30	480	320	800

Second Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
B. Voc. Electrical -201	Professional Communication	4	-	-	4	4	40	60	100
B. Voc. Electrical -202	Electrical Wiring	4	-	-	4	4	40	60	100
B. Voc. Electrical -203	Engineering calculations	4	-	-	4	4	40	60	100
B. Voc. Electrical -204	OJT-II (On Job Training NSQF Level-5)	-	-	36	36	18	300	200	500
	TOTAL	12	-	36	48	30	480	320	800

Third Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
B. Voc. Electrical -301	Environment Studies	4	-	-	4	4	40	60	100
B. Voc. Electrical -302	Soft skills - I	4	-	-	4	4	40	60	100
B. Voc. Electrical -303	Industrial Electronics And control of drives -I	4	-	-	4	4	40	60	100
B. Voc. Electrical -304	OJT-III (On Job Training)	-	-	36	36	18	300	200	500
	TOTAL	12	-	36	48	30	480	320	800

Fourth Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
B. Voc. Electrical -403	Human Values & Ethics	4	-	-	4	4	40	60	100
B. Voc. Electrical -404	Modern Electric Tractionsystem	4	-	-	4	4	40	60	100
B. Voc. Electrical -401	Power System - I(Generation, Transmission and Distribution of Electrical Power)	4	-	-	4	4	40	60	100
B. Voc. Electrical -404	OJT-IV (On Job Training NSQF Level-6)	-	-	36	36	18	300	200	500
	TOTAL	12	-	36	48	30	480	320	800

Fifth Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
B. Voc. Electrical -501	Industrial Electronics And control of drives -II	4	-	-	4	4	40	60	100
B. Voc. Electrical -502	Installation and Maintenance Of Electrical equipment	4	-	-	4	4	40	60	100
B. Voc. Electrical -503	Energy Conservation	4	-	-	4	4	40	60	100
B. Voc. Electrical -504	OJT-V (On Job Training)	-	-	36	36	18	300	200	500
	TOTAL	12	-	36	48	30	480	320	800

Sixth Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
B. Voc. Electrical -604	Electrical Vehicle -II	4	-	-	4	4	40	60	100
B. Voc. Electrical -602	Entrepreneurship	4	-	-	4	4	40	60	100
B. Voc. Electrical -603	Utilization of Electrical Energy	4	-	-	4	4	40	60	100
B. Voc. Electrical -604	OJT-VI (On Job Training NSQF Level-7)	-	-	36	36	18	300	200	500
	TOTAL	12	-	36	48	30	480	320	800