WEST BENGAL STATE COUNCIL OF TECHNICAL & VOCATIONAL EDUCATION AND SKILL DEVELOPMENT

(A Statutory Body under Government of West Bengal Act XXVI of 2013)
Department of Technical Education, Training & Skill Development, Government of West Bengal
Karigari Bhawan, 4th & 5th Floor, Plot No. B/7, Action Area-III, Newtown, Rajarhat, Kolkata–700160

WBSCTVESD Curriculum for Diploma Courses in Engineering and Technology

Semester - I

Sl. No.	Category of Course	Course Title	Hours per week			Total contact hrs/ week	Credits	Marks
			L	T	P			
	Theory Subjects							
1.	Basic Science	Mathematics-I	2	1	0	3	3	100
2.	Basic Science	Applied Physics-I	2	1	0	3	3	100
3.	Basic Science	Applied Chemistry	2	1	0	3	3	100
4.	Humanities & Social Science	Communication Skills in English	2	0	0	2	2	100
	Practical Subjects							
5.	Engineering Science	Engineering Graphics	0	0	3	3	1.5	100
6.	Engineering Science	Engineering Workshop Practice	0	0	3	3	1.5	100
7.	Basic Science	Applied Physics-I Lab	0	0	2	2	1	100
8.	Basic Science	Applied Chemistry Lab	0	0	2	2	1	100
9.	Humanities & Social Science	Sports and Yoga	0	0	2	2	1	100
10.	Humanities & Social Science	Communication Skills in English Lab	0	0	2	2	1	100
	Total		8	3	14	25	**18**	**1000**

Semester - II

Sl. No.	Category of Course	Course Title	Hours per week			Total contact hrs/ week	Credits	Marks
			L	T	P			
	Theory Subjects							
1.	Basic Science	Mathematics-II	3	1	0	4	4	100
2.	Basic Science	Applied Physics-II	2	1	0	3	3	100
3.	Engineering Science	Introduction to IT Systems	2	0	0	2	2	100
4.	Engineering Science	Fundamentals of Electrical & Electronics Engineering	2	1	0	3	3	100
5.	Engineering Science	Engineering Mechanics	2	1	0	3	3	100
	Practical Subjects							
6.	Basic Science	Applied Physics-II Lab	0	0	2	2	1	100
7.	Engineering Science	Introduction to IT Systems Lab	0	0	4	4	2	100
8.	Engineering Science	Fundamentals of Electrical & Electronics Engineering Lab	0	0	2	2	1	100
9.	Engineering Science	Engineering Mechanics Lab	0	0	2	2	1	100
	AUDIT COURSES-Mandatory non-credit courses							
10.	Audit	Indian Constitution	2	0	0	2	0	100
	Total		13	4	10	27	**20**	**1000**

Draft Curriculum Structure for 3rd, 4th, 5th and 6th Semester students of Diploma in Electrical Engineering & Electric Vehicle Technology

3rd Semester

Sl. No	Category of Course	Code No	Course Title	Credits	Marks	Total Contact Hours per Week	
						L	P
1	Program Core Course	EEEVPC 201	Introduction to EVs & HEVs	3	100	3	0
2	Program Core Course	EEEVPC 203	Introduction to EVs & HEVs Laboratory	1	100	0	2
3	Program Core Course	EEEVPC 205	Electrical Circuits	3	100	3	0
4	Program Core Course	EEEVPC 207	Electrical Circuits Laboratory	1	100	0	2
5	Program Core Course	EEEVPC 209	Electrical and Electronic Measurement	3	100	3	0
6	Program Core Course	EEEVPC 211	Electrical and Electronic Measurement Laboratory	1	100	0	2
7	Program Core Course	EEEVPC 213	Electrical Machines-I	3	100	3	0
8	Program Core Course	EEEVPC 215	Electrical Machines-I Laboratory	1	100	0	2
9	Program Core Course	EEEVPC 217	Analog and Digital Electronics	3	100	3	0
10	Program Core Course	EEEVPC 219	Analog and Digital Electronics Laboratory	1	100	0	2
11	Internship		Internship-I	1	100	0	
TOTAL				**21**	**1100**	**15**	**10**
Total contact hrs/ week =25							

4th Semester

Sl. No	Category of Course	Code No	Course Title	Credits	Marks	Contact Hours per Week	
						L	P
1	Program Core Course	EEEVPC 202	Power Electronics Converters and Application	3	100	3	0
2	Program Core Course	EEEVPC 204	Power Electronics Converters and Application Laboratory	1	100	0	2
3	Program Core Course	EEEVPC 206	Vehicle Chassis and Suspension	3	100	3	0
4	Program Core Course	EEEVPC 208	Vehicle Chassis and Suspension Laboratory	1	100	0	2
5	Program Core Course	EEEVPC 210	Electrical Machines-II	3	100	3	0
6	Program Core Course	EEEVPC 212	Electrical Machines-II Laboratory	1	100	0	2
7	Program Core Course	EEEVPC 214	Energy Storage system & Applications	3	100	3	0
8	Program Core Course	EEEVPC 216	Energy Storage system & Applications Laboratory	1	100	0	2
9	Program Elective Course I (Compulsory)	EEEVPE 202	1. Conventional & Non-Conventional Power Generation Systems 2. Electric Generation Systems	3	100	3	0
10	Program Elective Course I Lab (Compulsory)	EEEVPE 204	1. Conventional & Non-Conventional Power Generation Systems Laboratory 2. Electric Generation Systems Laboratory	1	100	0	2
11	Minor Project	EEEVPR 202		1	100	0	2
TOTAL				**21**	**1100**	**15**	**12**
Total contact hrs/ week =27							

5th Semester

Sl. No	Category of Course	Code No	Course Title	Credits	Marks	Total Contact Hours per Week	
						L	P
1	Program Core Course	EEEVPC 301	Automotive Power train & Garage Equipment	3	100	3	0
2	Program Core Course	EEEVPC 303	Automotive Power train & Garage Equipment Laboratory	1	100	0	2
3	Program Core Course	EEEVPC 305	Electrical Power System & Protection	3	100	3	0
4	Program Core Course	EEEVPC 307	Electrical Power System & Protection Laboratory	1	100	0	2
5	Program Elective Course II	EEEVPE 301	**Any one of the following subjects to be chosen** 1. EV Motor Drives & Controller 2.Embedded Processors and Controllers	3	100	3	0
6	Program Elective Course II lab	EEEVPE 303	**Any one of the following laboratories to be chosen/** 1. EV Motor Drives & Controller Laboratory 2. Embedded Processors and Controllers Laboratory b	1	100	0	2
7	Program Elective Course III	EEEVPE 305	**Any one of the following subjects to be chosen** 1. Automotive Electronicsfor EVs 2. Sensor and Instrumentation	3	100	3	0
8	Program Elective Course III Lab	EEEVPE 307	**Any one of the following laboratories to be chosen** 1. Automotive Electronics for EVs Laboratory 2. Sensor and Instrumentation Laboratory	1	100	0	2
9	Internship		Internship II	1	100	0	
10	Major Project	EEEVPR 301		2	100	0	4
TOTAL				**19**	**1000**	**12**	**12**
Total contact hrs/ week = 24							

6th Semester

Sl. No	Category of Course	Code No	Course Title	Credits	Marks	Total Contact Hours per Week	
						L	P
1	Program Core Course	EEEVPC 302	Battery Management System and EV Charging	3	100	3	0
2	Program Core Course	EEEVPC 304	Battery Management System and EV Charging Laboratory	1	100	0	2
3	Program Elective course IV	EEEVPE 302	**Any one of the following subjects to be chosen** 1. Advance Driver Assistance System and Connected System 2. Electric Vehicle Maintenance and Safety	3	100	3	0
4	Program Elective course IV Lab	EEEVPE 304	**Any one of the following subjects to be chosen** 1. Advance Driver Assistance System and Connected System Laboratory 2. Electric Vehicle Maintenance and Safety Laboratory	1	100	0	2
5	Humanities and Social Science	HS 302	Entrepreneurship and Start-ups	4	100	4	0
6	Open Elective Course-I (compulsory)	OE 302	Engineering Economics and Project Management	3	100	3	0
7	Open Elective Course- II	OE304	**Any one of the following subjects to be chosen.** i. Mechatronics ii. Internet of Thinks iii. Environmental Engineering and Science iv. Industrial Management v. Sustainable development vi. Industrial Safety Engineering vii. EV Standards and Testing viii. Automotive Security ix. Artificial Intelligence x. Machine Learning	3	100	3	0
8	Major Project	EEEVPR 302		2	100	0	4
9	Seminar	SE 302		1	100	1	0
TOTAL				**21**	**900**	**17**	**8**
Total contact hrs/ week =25							