



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

Semester-wise Detailed Curriculum
Semester III (Second year)
Branch/Course: Automobile Engineering

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hours/ week	Credits
				Lecture	Tutorial	Practical		
1	Program Core Course	AEPC 301	Strength of Materials	2	1	0	3	3
2	Program Core Course	AEPC 302	Heat Power Engineering	3	0	0	3	3
3	Program Core Course	AEPC 303	Automotive Materials and Manufacturing Process	3	0	0	3	3
4	Program Core Course	AEPC 304	Automotive Chassis	3	0	0	3	3
5	Program Core Course	AEPC 305	Automotive Engines	3	0	0	3	3
6	Program Core Course	AEPC 306	Heat Power Engineering Lab	0	0	2	2	1
7	Program Core Course	AEPC 307	Automotive Materials and Manufacturing Process Lab	0	0	2	2	1
8	Program Core Course	AEPC 308	Automotive Chassis Lab	0	0	2	2	1
9	Program Core Course	AEPC 309	Automotive Engine Lab	0	0	3	3	1.5
10	Internship - I after II nd Sem	SI 301	Internship	0	0	0	0	1
Total				14	1	9	24	20.5

Semester-wise Detailed Curriculum
Semester IV (Second year)
Branch/Course: Automobile Engineering

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hours/ week	Credits
				Lecture	Tutorial	Practical		
1	Program Core Course	AEPC 401	Automotive Powertrain	3	0	0	3	3
2	Program Core Course	AEPC 402	Fluid Mechanics & Machines	2	1	0	3	3
3	Program Core Courses	AEPC 403	Theory of Machines & Mechanism	2	1	0	3	3
4	Program Elective Course	AEPC 404	Automotive Component Design	3	0	0	3	3
5	Program Elective Course	AEPE 411/ 412	Any one Programme Elective	3	0	0	3	3
6	Program Core Course	AEPC 405	Automotive Powertrain Lab	0	0	2	2	1
7	Program Core Course	AEPC 406	Strength of Material and Fluid Mechanics Lab	0	0	3	3	1.5
8	Program Core Course	AEPC 407	Automobile Engineering Drawing and Computer Graphics Lab	0	0	4	4	2
9	Minor Project	PR 402		0	0	4	4	2
Total				13	2	13	28	21.5

List of Programme Electives for Fourth Semester

1. AEPE 411: Automotive Pollution & Control
2. AEPE 412: Alternate Fuels and Energy Systems

Semester-wise Detailed Curriculum
Semester V (Third year)
Branch/Course: Automobile Engineering

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hours/ week	Credits
				Lecture	Tutorial	Practical		
1	Program Core Course	AEPC 501	Fluid Power	3	0	0	3	3
2	Program Core Course	AEPC 502	Automotive Electrical & Electronics	3	0	0	3	3
3	Program Core Course	AEPC 503	M. V. Act & Transport Management	3	0	0	3	3
4	Program Elective Course	AEPE 511/ 512	Any one Programme Elective	3	0	0	3	3
5	Program Elective Course	AEPE 513/ 514	Any one Programme Elective	3	0	0	3	3
6	Program Core Course	AEPC 504	Automotive Electrical & Electronics Lab	0	0	2	2	1
7	Internship-II after IV th Sem	SI 501		0	0	0	0	1
8	Major Project	PR 502		0	0	2	2	1
Total				15	0	4	19	18

List of Programme Electives for Fifth Semester

1. AEPE 511: CAD/CAM and Modern Manufacturing Methods
2. AEPE 512: Automobile Air Conditioning
3. AEPE 513: Earth Moving Equipments & Farm Machinery
4. AEPE 514: Two & Three Wheelers

Semester-wise Detailed Curriculum
Semester VI (Third year)
Branch/Course: Automobile Engineering

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hours/ week	Credits
				Lecture	Tutorial	Practical		
1	Program Core Course	AEPE 601	Garage Practice	3	0	0	3	3
2	Humanities and Social Science Course	HS302	Entrepreneurship and Start-ups	2	1	0	3	3
3	Open Elective	AEOE 621	Engineering Economics and Project Management	3	0	0	3	3
4	Open Elective	AEOE 622/ 623/ 624/ 625	Any one Open Elective	3	0	0	3	3
5	Program Elective Course	AEPE 611/ 612/ 613	Any one Program Elective	3	0	0	3	3
6	Program Core Course	AEPE 602	Garage Practice Lab	0	0	2	2	1
7	Program Core Course	AEPE 603	Driving Practice Lab	0	0	2	2	1
8	Major Project	PR602		0	0	6	6	3
9	Seminar	SE602		0	0	4	4	2
Total				14	1	14	29	22

List of Program Electives for Sixth Semester

1. AEPE 611: Modern Vehicle Technology
2. AEPE 612: Vehicle Aerodynamics & Design
3. AEPE 613: Vehicle Body Engineering

List of Open Electives for Sixth Semester

1. AEOE 621: Engineering Economics and Project Management
2. AEOE 622: Electric Vehicle Technology
3. AEOE 623: Industrial Management
4. AEOE 624: Industrial Safety
5. AEOE 625: Disaster Management