



**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

PROPOSED CURRICULUM STRUCTURE OF AGRICULTURAL ENGINEERING

3 RD SEMESTER CURRICULUM OF AGRICULTURAL ENGINEERING									
SL NO	COURSE CODE	SUBJECT	TYPE	SEM	L	PR	CONTACT HR PER WEEK	CREDIT	MARKS
1	AGPC301	Basic Soil Science	TH	3rd	2		2	2	100
2	AGPC302	Surveying and Leveling	TH	3rd	3		3	3	100
3	AGPC303	Thermodynamics and heat transfer process	TH	3rd	2		3	3	100
4	AGPC304	Agricultural Process Engineering	TH	3rd	2		2	2	100
5	AGPC305	Environmental Engg	TH	3rd	3		3	3	100
6	AGPC306	Hydraulics	TH	3rd	3		3	2	100
7	AGPC307	Agricultural Process Engineering Lab	PR			2	1	1	100
8	AGPC308	Basic Soil Science Lab	PR	3rd		4	4	2	100
9	AGPC309	Field Survey Lab	PR	3rd		4	4	2	100
10	AGPC310	Practical of Horticultural crops	PR	3rd		2	2	1	100
11	AG-SI-311	Summer Internship I		3rd		0	0	1	100
					15	12	27	22	1100

4 TH SEMESTER CURRICULUM OF AGRICULTURAL ENGINEERING									
SL NO	COURSE CODE	SUBJECT	TYPE	SEM	L	PR	CONTACT HR PER WEEK	CREDIT	MARKS
1	AGPC401	Principles of Agronomy	TH	4th	3		3	3	100
2	AGPC402	Dairy and Food processing Technology	TH	4th	2		2	2	100
3	AGPC403	Ground waters wells and pumps	TH	4th	3		3	3	100
4	AGPC404	Soil Mechanics	TH	4th	2		2	2	100
5	AGPC405	Agricultural Economics and Farm Management	TH	4th	2		2	2	100
6	AGPE406 Or AGPE407	PHE OF HORTICULTURAL CROPS* OR AGRICULTURAL PROCESS ENGG -II	PR	4th	2		2	2	100
7	AGPC408	Principles of Agronomy Lab	PR	4th		4	4	2	100
8	AGPC409	Ground waters wells and pumps Lab	PR	4th		4	4	2	100
9	AGPE410 OR AGPE411	PHE OF HORTICULTURAL CROPS LAB OR AGRICULTURAL PROCESS ENGG -II LAB	PR	4th		2	2	1	100
							24	19	900

5 TH SEMESTER CURRICULUM OF AGRICULTURAL ENGINEERING										
SL NO	COURSE CODE	SUBJECT	TYPE	SEM	L	PR	CONTACT HR PER WEEK	CREDIT	MARKS	
1	AGPC501	Irrigation & Drainage Engineering	TH	5th	3		3	3	100	
2	AGPC502	Farm Power	TH	5th	3		3	3	100	
3	AGPE2-503 OR AGPE2-504	Seed Processing Technology OR Greenhouse Technology	TH	5th	3		3	3	100	
4	AGPC505	Refrigeration And Air Conditioning	TH	5th	3		3	3	100	
5	AGPE3-506 OR AGPE3-507	Soil And Water Conservation OR Estimating and Costing of Farm Buildings and Structures	TH	5th	2		2	2	100	
6	AGPC508	Farm Power And Agricultural Tractors And Machineries Lab.	PR	5th		4	4	2	100	
7	AGPE2-C509 Or AGPE2-C510	Seed Processing Technology Lab. OR Greenhouse Technology Lab	PR	5th		4	4	2	100	
8	AG-SI-511	Summer Internship II		5th		0	0	1	100	
9	AGPR512	Major Project		5th		2	2	1	100	
					14	10	24	20	900	

6 TH SEMESTER CURRICULUM OF AGRICULTURAL ENGINEERING										
SL NO	CATEGORY	SUBJECT	TYPE	SEM	L	PR	CONTACT HR PER WEEK	CREDIT	MARKS	
1	AGPE4-601 OR AGPE4-602	Handling, Packaging and Storage of Agricultural Products OR Agricultural Waste Utilization	TH	6TH	2		2	2	100	
2	OPEN ELECTIVE-II	Renewable Energy	TH	6TH	3		3	3	100	
3	AGPC603	Farm Machinery & Equipments	TH	6th	3		3	3	100	
4	OPEN ELECTIVE-I	Engineering economics and Project Management	TH	6th	3		3	3	100	
5	AGHS604	Entrepreneurship and Start-ups	TH	6th	3		3	3	100	
6	AGPC605	Water shed and hydrology	TH	6th	2		2	2	100	
7	AGPC606	Renewable Energy Sources Lab.	PR	6th		2	2	1	100	
8	AGPC607	Farm Machinery & Equipment Lab	PR	6th		4	4	2	100	
9	AGPR608	Project work		6th		2	2	1	100	
10	AGSE609	Seminar on project		6th		2	2	1	100	
					16	10	26	21	1000	

Program Elective (PE) Course							
Sl No	Course Code	Course Name	Semester	Credit	Contact Hr /week		Full Marks
1. Elective-I (Any one course to be selected)					L	P	
1.1	AGPE406	PHE OF HORTICULTURAL CROPS*	4 th	2	2		100
1.2	AGPE407	AGRICULTURAL PROCESS ENGG - II		2	2		100
2. Elective-II (Any one course to be selected)							
2.1	AGPE2-503	Seed Processing Technology	5 TH	3	3		100
2.2	AGPE2-504	Greenhouse Technology		3	3		100
3. Elective-III (Any one course to be selected)							
3.1	AGPE3-506	Soil And Water Conservation		2	2		100
3.2	AGPE3-507	Estimating and Costing of Farm Buildings and Structures		2	2		100
4. Elective-IV (Any one course to be selected)							
4.1	AGPE4-601	Handling, Packaging and Storage of Agricultural Products	6 TH	2	2		100
4.2	AGPE4-602	Agricultural Waste Utilization		2	2		100

Open Elective (OE) Course							
Sl No	Course Code	Course Name	Semester	Credit	Contact Hr /week		Full Marks
1. Open Elective-I					L	P	
1.1		Engineering economics and Project Management	6 th	3	3		100
2. Open Elective-II							
2.1		Renewable Energy	6 th	3	3		100

Credit distribution across course categories.

Row Labels	Sum of CREDIT
Program Core Course	59
Humanities	3
Open Elective	6
Program Elective	9
Project+Internship+Seminar	5
Grand Total	82

Semester wise marks and credit distribution.

Semester	Credits
1 st	18
2 nd	20
3 rd	22
4 th	19
5 th	20
6 TH	21
Grand Total	120

Semester wise contact hour per week

Semester	Contact hour per week
1 st	25
2 nd	27
3 rd	27
4 th	24
5 th	24
6 TH	26

**Total available contact hours per week = 27*

Monday to Friday = 5 x 5 = 25

Saturday = 1 x 2 = 2

Code Definition

AG Agricultural Engineering
PC Program Core Course
PE Program Elective Course
OE Open Elective Course
HS Humanities & Social Science Course
AU Audit Course
SI Summer Internship
PR Project
SE Seminar
L Lecture
P Practical
CA Class Attendance
TA Teacher's Assessment
MST Mid Semester Test
ESE End Semester Exam

Definition of Credit

Credit

1 Hr. Lecture (L) per Week
1 Hr. Tutorial (T) per Week
1 Hr. Practical (P) per Week

1
1
0.5