

Semester-wise Course Programme

- Course numbers of SWE are change to SWCE in accordance to the name of the department
- Course numbers indicates following

Eg. Maths(E)-1.1.1
SWCE-2.4.6

Math(E)	1.	1.	1
SWCE	2.	4.	6
Subject/department	Year	Semester	Course no of particular Semester in sequence

No.	Course No.	Title of the Course	Credit Hour	Remarks
Semester I				
1.	Math(E)-1.1.1	Engineering Mathematics-I	3(2+1)	
2.	Phy(E)-1.1.2	Engineering Physics	3(2+1)	
3.	Chem(E)-1.1.3	Engineering Chemistry	3(2+1)	
4.	Ag(E)-1.1.4	Principles of Soil Science	3(2+1)	
5.	CE-1.1.5	Surveying and Levelling	3(1+2)	
6.	CE-1.1.6	Engineering Mechanics	3(2+1)	
7.	ME-1.1.7	Engineering Drawing	2(0+2)	
8.	ME-1.1.8	Heat and Mass Transfer	2(2+0)	
9.	Phy. Edu.-1.1.9	NSS/NCC/Physical Education	0(0+1*)	
Total			22(13+9)	
Semester II				
1.	Math(E)-1.2.1	Engineering Mathematics-II	3(2+1)	
2.	AS(E)-1.2.2	Environmental Science and Disaster Management	3(2+1)	
3.	AS(E)-1.2.3	Entrepreneurship Development and Business Management	3(2+1)	
4.	CE-1.2.4	Fluid Mechanics and Open Channel Hydraulics	3(2+1)	
5.	CE-1.2.5	Strength of Materials	2(1+1)	
6.	ME-1.2.6	Workshop Technology and Practices	3(1+2)	
7.	ME-1.2.7	Theory of Machines	2(2+0)	
8.	CSE-1.2.8	Web Designing and Internet Applications	2(1+1)	
9.	Phy. Edu.-1.2.9	NSS/NCC/Physical Education	0(0+1*)	
Total			21(13+8)	

Semester III				
No.	Course No.	Title of the Course	Credit Hour	Remarks
1.	Ag(E)-2.3.1	Principles of Horticultural Crops and Plant Protection	2(1+1)	
2.	Ag(E)-2.3.2	Principles of Agronomy	3(2+1)	
3.	AS(E)-2.3.3	Communication Skills and Personality Development	2(1+1)	
4.	Math(E)-2.3.4	Engineering Mathematics-III	3(2+1)	
5.	CE-2.3.5	Soil Mechanics	2(1+1)	
6.	CE-2.3.6	Design of Structures	2(1+1)	
7.	ME-2.3.7	Machine Design	2(2+0)	
8.	ME-2.3.8	Thermodynamics, Refrigeration and Air Conditioning	3(2+1)	
9.	EE-2.3.9	Electrical Machines and Power Utilization	3(2+1)	
10.	Phy. Edu. -2.3.10	NSS/NCC/Physical Education	0(0+1*)	
Total			22(14+8)	
Semester IV				
1.	CE-2.4.1	Building Construction and Cost Estimation	2(2+0)	
2.	ME-2.4.2	Auto CAD Applications	2(0+2)	
3.	EE-2.4.3	Applied Electronics and Instrumentation	3(2+1)	
4.	FMPE-2.4.4	Tractor and Automotive Engines	3(2+1)	
5.	PFE-2.4.5	Engineering Properties of Agricultural Produce	2(1+1)	
6.	SWCE-2.4.6	Watershed Hydrology	2(1+1)	
7.	IDE-2.4.7	Irrigation Engineering	3(2+1)	
8.	IDE-2.4.8	Sprinkler and Micro Irrigation Systems	2(1+1)	
9.	REE-2.4.9	Fundamentals of Renewable Energy Sources	3(2+1)	
10.	Phy.Edu.-2.4.10	NSS/NCC/Physical Education	0(0+1*)	
Total			22(13+9)	
V Semester				
1.	FMPE-3.5.1	Farm Machinery and Equipment-I	3(2+1)	
2.	FMPE-3.5.2	Tractor Systems and Controls	3(2+1)	
3.	PFE-3.5.3	Agricultural Structures and Environmental Control	3(2+1)	
4.	PFE-3.5.4	Post Harvest Engineering of Cereals, Pulses and Oil Seeds	3(2+1)	
5.	SWCE-3.5.5	Soil and Water Conservation Engineering	3(2+1)	
6.	SWCE-3.5.6	Watershed Planning and Management	2(1+1)	
7.	IDE-3.5.7	Drainage Engineering	2(1+1)	
8.	REE-3.5.8	Renewable Power Sources	3(2+1)	
9.	CAE-3.5.9	Skill Development Training-I (Student READY) Registration only	5(0+5)	

			Total	27(14+13)	
VI Semester					
No.	Course No.	Title of the Course	Credit Hour	Remarks	
1.	CSE-3.6.1	Computer Programming and Data Structures	3(1+2)		
2.	FMPE-3.6.2	Farm Machinery and Equipment-II	3(2+1)		
3.	PFE-3.6.3	Post Harvest Engineering of Horticultural Crops	2(1+1)		
4.	SWCE-3.6.4	Water Harvesting and Soil Conservation Structures	3(2+1)		
5.	IDE-3.6.5	Groundwater, Wells and Pumps	3(2+1)		
6.	FMPE-3.6.6	Tractor and Farm Machinery Operation and Maintenance	2(0+2)		
7.	PFE-3.6.7	Dairy and Food Engineering	3(2+1)		
8.	REE-3.6.8	Bio-energy Systems: Design and Applications	3(2+1)		
			Total	22(12+10)	
VII Semester					
VII Semester Student READY (Rural and Entrepreneurship Awareness Development Yojana)					
1.	CAE-4.7.1	Skill Development Training-II (Student READY) Registration only	5(0+5)		
2.	CAE-4.7.2	10- weeks Industrial Attachment /Internship (Student READY)	10(0+10)		
3.	CAE-4.7.3	10- weeks Experiential Learning On campus (Student READY)	10(0+10)		
4.	CAE-4.7.4	Educational Tour (Registration only)	2 (0+2)		
			Total	27(0+27)	
VIII Semester					
VIII Semester Student READY (Rural and Entrepreneurship Awareness Development Yojana)					
1.		Elective course	3(2+1)		
2.		Elective course	3(2+1)		
3.		Elective course	3(2+1)		
4.	CAE-4.8.4	Project Planning and Report Writing (Student READY)	10(0+10)		
			Total	19(6+13)	
			Grand Total I to VIII semesters	182(85+97)	
Elective Courses (Any 3 courses)9 (6+3)					
1	SWCE-4.8.1	Floods and Control Measures	3(2+1)		
2	SWCE-4.8.2	Wasteland Development	3(2+1)		
3	SWCE-4.8.3	Information Technology for Land and Water Management	3(2+1)		
4	SWCE-4.8.4	Remote Sensing and GIS Applications	3(2+1)		

5	IDE-4.8.5	Management of Canal Irrigation System	3(2+1)	
6	IDE-4.8.6	Minor Irrigation and Command Area Development	3(2+1)	
No.	Course No.	Title of the Course	Credit Hour	Remarks
7	IDE-4.8.7	Precision Farming Techniques for Protected Cultivation	3(2+1)	
8	IDE-4.8.8	Water Quality and Management Measures	3(2+1)	
9	IDE-4.8.9	Landscape Irrigation Design and Management	3(2+1)	
10	REE-4.8.10	Plastic Applications in Agriculture	3(2+1)	
11	FMPE-4.8.11	Mechanics of Tillage and Traction	3(2+1)	
12	FMPE-4.8.12	Farm Machinery Design and Production	3(2+1)	
13	FMPE-4.8.13	Human Engineering and Safety	3(2+1)	
14	FMPE-4.8.14	Tractor Design and Testing	3(2+1)	
15	FMPE-4.8.15	Hydraulic Drives and Controls	3(2+1)	
16	FMPE-4.8.16	Precision Agriculture and System Management	3(2+1)	
17	PFE-4.8.17	Food Quality and Control	3(2+1)	
18	PFE-4.8.18	Food Plant Design and Management	3(2+1)	
19	PFE-4.8.19	Food Packaging Technology	3(2+1)	
20	PFE-4.8.20	Development of Processed Products	3(2+1)	
21	PFE-4.8.21	Process Equipment Design	3(2+1)	
22	REE-4.8.22	Photovoltaic Technology and Systems	3(2+1)	
23	REE-4.8.23	Waste and By-products Utilization	3(2+1)	
24	CSE-4.8.24	Artificial Intelligence	3(3+0)	
25	ME-4.8.25	Mechatronics	3(2+1)	
26	REE-4.8.26	Energy Conservation and Audit in Agricultural Industry	3(2+1)	
			143 (87+56)	