

5. Course Layout of the Faculty of Agricultural Engineering & Technology

Level-1 Semester-1			Level-1 Semester-2		
Course Code	Course Title	Credit hours	Course Code	Course Title	Credit hours
CSE 111	Mathematics-I	3	CSE 121	Mathematics-II	3
PHY 111	Physics	3	CSE 121	Computer Science	2
PHY 112	Physics	1	CSE 124	Computer Science	1
AGCHM 111	Chemistry	3	FPM 121	Workshop Technology	1
AGCHM 112	Chemistry	1	FPM 122	Workshop Technology	1
ACEE 112	Engineering Drawing (Civil)	1	FPM 124	Engineering Drawing (Mechanical)	1
LAN 111	English	2	AGRSS 123	Agronomy	2
FPM 112	Engineering Shop	1	AGRSS 114	Agronomy	1
SS 111	Soil Science	2	FPM 125	Engineering Mechanics	3
SS 112	Soil Science	1	ACEE 121	Surveying	2
			ACEE 122	Field Surveying	1
			LAN 122	English	1
Sub-total		18	Sub-total		19

Level-2 Semester-1			Level-2 Semester-2		
Course Code	Course Title	Credit hours	Course Code	Course Title	Credit hours
CSE 211	Mathematics-III	3	FPM 221	Electrical Engineering	2
AEP 211	Agricultural Economics	2	FPM 222	Electrical Engineering	1
FET 211	Food Science	2	IWM 221	Hydraulics	2
FET 212	Food Science	1	IWM 222	Hydraulics	1
IWM 211	Fluid Mechanics	2	FPM 223	Heat Engines	2
IWM 212	Fluid Mechanics	1	FPM 224	Heat Engines	1
FPM 211	Thermodynamics	2	ACEE 221	Strength of Materials	2
FPM 212	Thermodynamics	1	ACEE 222	Strength of Materials-	1
ACEE 211	Engineering Materials	2	ACEE 225	Material and Cost Estimation	2
ACEE 212	Engineering Materials	1	ARD 221	Rural Sociology	2
CSE 213	Computer Application	2	HORT 221	Horticultural Science	2
CSE 214	Computer Application	1	HORT 222	Horticultural Science	1
FET 213	Fundamentals of Food Engineering	2	STAT 221	Statistics	2
FET 214	Fundamentals of Food Engineering	1	STAT 222	Statistics	1
Sub-total		23	Sub-total		22

Level-3 Semester-1			Level-3 Semester-2		
Course Code	Course Title	Credit hours	Course Code	Course Title	Credit hours
FPM 311	Agricultural Power	2	FPM 321	Agricultural Machinery	3
FPM 312	Agricultural Power	1	FPM 322	Agricultural Machinery	1
FPM 313	Electrical Machinery	2	FPM 323	Rural Electrification Engineering	2
FPM 314	Electrical Machinery	1	FPM 324	Rural Electrification Engineering	1
IWM 311	Irrigation and Drainage Engineering	3	ACEE 321	Environmental Engineering	2
IWM 312	Irrigation and Drainage Engineering	1	ACEE 322	Environmental Engineering	1
IWM 313	Groundwater Engineering	2	AGEXT 321	Agricultural Extension Education	2
IWM 314	Groundwater Engineering	1	AGEXT 322	Agricultural Extension Education	1
ACEE 311	Soil Mechanics	2			
ACEE 312	Soil Mechanics	1			
ACEE 313	Concrete Structure Design	3			
ACEE 314	Concrete Structure Design	1			
FET 311	Food Plant Design & Management	2			
Sub-total		22	Sub-total		13

Set-A: CSE (Computer Science & Engineering)		
Course Code	Course Title	Credit hours
CSE 321	Algorithm	2
CSE 323	Engineering Mathematics	2
CSE 325	Internet Programming	2
Total		13+6=19

Set-B: FPM (Farm Power & Machinery)		
Course Code	Course Title	Credit hours
FPM 325	Heat and Mass Transfer	2
FPM 327	Refrigeration and Air Conditioning Engineering	2
FPM 328	Refrigeration and Air Conditioning Engineering	1
Total		13+5=18

Set-C: ACEE (Agricultural Construction and Environmental Engineering)		
Course Code	Course Title	Credit hours
ACEE 323	Solid Waste Management	2
ACEE 324	Solid Waste Management	1
IWM 323	Agricultural Meteorology	2
Total		13+5=18

Set-D: IWM (Irrigation & Water Management)		
Course Code	Course Title	Credit hours
IWM 321	Hydraulic Engineering	2
IWM 322	Hydraulic Engineering	1
IWM 323	Agricultural Meteorology	2
Total		13+5=18

Set-E: FET (Food Engineering & Technology)		
Course Code	Course Title	Credit hours
FET 321	Food Chemistry & Nutrient Technology	2
FET 322	Food Chemistry & Nutrient Technology	1
FET 323	Thermal Processing & Freezing of Foods	2
Total		13+5=18

Level-4 Semester-1 Common Courses		
Course Code	Course Title	Credit hours
FPM 401	Agricultural Mechanization	2
IWM 401	Pumps and Wells	2
IWM 402	Pumps and Wells	1
IWM 403	Soil and Water Conservation Engineering	3
IWM 404	Soil And Water Conservation engineering	1
CSE 402	Computer Aided Design	1
Sub-total		10

Sets-A: CSE (Computer Science & Engineering)		
Course Code	Course Title	Credit hours
CSE 403	Database Management Systems	2
CSE 405	Electronics and Instrumentation	2
FPM 403	Agricultural Process Engineering	2
FPM 404	Agricultural Process Engineering	1
CSE 410	Project Work and Seminar	1
Sub-total		8

Elective Courses: Two credits from the following courses		
Course Code	Course Title	Credit hours
CSE 407	Multimedia Systems	1
CSE 409	Discrete Mathematics	2
CSE 411	Engineers and Society	2
AMB 401	Accountancy	2
FPM 413	Precision Agriculture	2
FPM 414	Precision Agriculture	1
CSE 413	Microprocessor Systems	2
CSE 415	Electronic Devices and Circuits	2
Total		10+8+2=20

Set-B: FPM (Farm Power & Machinery)		
Course Code	Course Title	Credit hours
FPM 403	Agricultural Process Engineering	2
FPM 404	Agricultural Process Engineering	1
FPM 405	Machine Design	2
FPM 410	Project Work and Seminar	1
Sub-total		6

Elective Courses: Three credits (Two courses) from the following courses		
Course Code	Course Title	Credit hours
CSE 405	Electronics and Instrumentation	2
CSE 406	Electronics and Instrumentation	1
FPM 407	Manufacturing Methods and Quality Control	2
FPM 408	Manufacturing Methods and Quality Control	1
AMB 411	Agribusiness and Marketing	2
FPM 411	Soil Dynamics and Tillage	1
FPM 412	Soil Dynamics and Tillage	2
FPM 413	Precision Agriculture	1
FPM 414	Precision Agriculture	2
AMD 401	Accountancy	1
Total		10+6+3=19

Set-C: ACEE (Agricultural Construction and Environmental Engineering)		
Course Code	Course Title	Credit hours
ACEE 411	Water Pollution and Treatment	2
ACEE 412	Water Pollution and Treatment	1
FPM 403	Agricultural Process Engineering	2
FPM 404	Agricultural Process Engineering	1
ACEE 410	Project Work and Seminar	1
Sub-total		7

Elective Courses: Two credits from the following courses		
Course Code	Course Title	Credit hours
ACEE 415	Foundation Engineering	2
ACEE 417	Applied Soil Mechanics	2
AMB 401	Accountancy	2
AMB 411	Agribusiness and Marketing	2
Total		10+7+2=19

Set-D: IWM (Irrigation & Water Management)		
Course Code	Course Title	Credit hours
IWM 405	Hydrology	3
IWM 406	Hydrology	1
IWM 407	Hydraulic Machinery	2
IWM 408	Hydraulic Machinery	1
IWM 410	Project Work and Seminar	1
Sub-total		8

Elective Courses: Two credits from the following courses		
Course Code	Course Title	Credit hours
SS 411	Soil Physics	2
CSE 403	Database Management Systems	2
AMB 401	Accountancy	2
LAN 411	Communication Skill	2
Total		10+8+2=20

Set-E: FET (Food Engineering & Technology)		
Course Code	Course Title	Credit hours
FPM 405	Machine Design	2
FET 411	Food Packaging & Machinery	2
FET 412	Food Packaging & Machinery	1
FET 410	Project Work & Seminar	1
Sub-total		6

Elective Course: Three credits (Two courses) from the following courses		
Course Code	Course Title	Credit hours
FET 413	Technology of Fruits & Vegetables	2
FET 414	Technology of Fruits & Vegetables	1
FET 415	Meat & Fish Technology	2
FET 416	Meat & Fish Technology	1
FET 417	Dairy Engineering	2
FET 418	Dairy Engineering	1
FET 419	Biochemical Engineering	2
CM 401	Accountancy	2
Total		10+6+3=19

Level-4 Semester-2		
Course Code	Course Title	Credit hours
FPM 421	Engineering Management	2
IWM 421	On-Farm Water Management	2
IWM 422	On-Farm Water Management	1
Sub-total		5

Set-A: CSM (Computer Science & Engineering)		
Course Code	Course Title	Credit hours
CSE 421	Digital Circuits	2
CSE 423	Operation Research	2
CSE 425	Computer Network	2
CSE 430	Project Work and Report	3
Sub-total		9

Elective Courses: Four credits (Two courses) from the following courses		
Course Code	Course Title	Credit hours
CSE 427	Computer System Administration	2
CSE 429	Operating Systems	2
FPM 429	Project Planning and Evaluation	3
CSE 433	Network Management	2
CSE 435	Computer Graphics	2
CSE 437	GIS and ICT	2
CSE 438	GIS and ICT	1
Total		5+9+4=18

Set-B: FPM (Farm Power & Machinery)		
Course Code	Course Title	Credit hours
FPM 423	Bio-Materials and Systems	3
FPM 425	Agricultural Machinery Design	2
FPM 427	Testing and Standardization of Agril. Machinery	2
FPM 428	Testing and Standardization of Agril. Machinery	1
FPM 432	Industrial Training	1
FPM 430	Project Work and Report	3
Sub-total		12

Elective Courses: Three credits from the following courses

Course Code	Course Title	Credit hours
CSE 437	GIS and ICT	2
CSE 438	GIS and ICT	1
FPM 433	Ergonomics	2
FPM 434	Ergonomics	1
FPM 435	Livestock and Poultry Machinery	2
FPM 436	Livestock and Poultry Machinery	1
FPM 437	Technology, Gender and Development	3
AGEXT 421	Extension Communication Management	3
FPM 429	Project Planning and Evaluation	3
ACEE 421	Farm Building Design	2
ACEE 422	Farm Building Design	1
Total		5+12+3=20

Set-C: ACEE (Agricultural Construction and Environmental Engineering)

Course Code	Course Title	Credit hours
ACEE 421	Farm Building Design	2
ACEE 422	Farm Building Design	1
ACEE 423	Silo and Storage Structure	2
ACEE 424	Silo and Storage Structure	1
ACEE 425	Environmental Impact Assessment	2
ACEE 426	Environmental Impact Assessment	1
ACEE 430	Project Work and Report	3
Sub-total		12

Elective Course : Three credits from the following courses

Course Code	Course Title	Credit hours
ACEE 427	Rural Housing and Sanitation	2
ACEE 428	Rural Housing and Sanitation	1
FPM 423	Bio-Materials and Systems	3
CSE 437	GIS and ICT	2
CSE 438	GIS and ICT	1
Total		5+12+3=20

Sets-D: IWM (Irrigation & Water Management)

Course Code	Course Title	Credit hours
IWM 423	Irrigation Structure	3
IWM 424	Irrigation Structure	1
IWM 425	Flood Control and River Training	2
IWM 426	Flood Control and River Training	1
IWM 427	Land and Watershed Management	2
IWM 430	Project Work and Report	3
Sub-total		12

Elective Course: Two credits from the following courses

Course Code	Course Title	Credit hours
IWM 429	Aquacultural Engineering	2
IWM 431	Land Reclamation Engineering	2
CSE 437	GIS and ICT	2
Total		5+12+2=19

Set-E FET (Food Engineering & Technology)

Course Code	Course Title	Credit hours
FET 421	Food Microbiology	2
FET 422	Food Microbiology	1
FET 423	Food Quality Assurance and Safety	2
FET 424	Technology of Cereal Products	2
FET 425	Technology of Cereal Products	1
FET 431	Industrial Training	1
FET 420	Project Work	3
Sub-total		12

Elective Course: Three Credits (Two courses) from the following courses

Course Code	Course Title	Credit hours	Course Code	Course Title	Credit hours
FET 426	Food Flavor Technology	2	FET 430	Beverage & Fermentation Technology	1
FET 427	Food Flavor Technology	1	CSE 437	GIS and ICT	2
FET 428	Food Biotechnology	2	CSE 438	GIS and ICT	1
FET 429	Beverage & Fermentation Technology	2	AMB 411	Agro Business & Marketing	2
				Total	5+12+3=20

Grand Total (Credit hours) = 18+19+23+22+22+18+19+20=161