SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY

DEPARTMENT OF AGRICULTURAL AND ENVIRONMENTAL ENGINEERING

100 LEVEL FIRST SEMESTER						
COURSE CODE	**STATUS**	**COURSE TITLE**	**L**	**T**	**P**	**Unit**
CHE 101	R	General Chemistry I	2	1	3	4
PHY 101	R	General Physics 1	2	1	-	3
PHY 103	R	General Physics 1II	1	1	-	2
PHY 107	R	General Physics Laboratory I.	-	-	3	1
MTS 101	R	Introductory Mathematics I	2	1	-	3
MEE 101	R	Engineering Drawing I	1	-	6	3
GNS 101	**R**	**Use of English I**	**1**	**1**	**0**	**2**
CVE 105	**R**	**History and Philosophy of Science**	**2**	**-**	**-**	**2**
GNS 103	**R**	**Information Retrieval**	**1**	**-**	**-**	**1**
	Total					21

100 LEVEL 2ND SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Unit**
CHE 102	R	General Chemistry II	2	1	3	4
PHY 102	R	General Physics II	2	1	-	3
PHY 108	R	General Physics Laboratory II	-	-	3	1
MTS 102	R	Introductory Mathematics II.	2	1	-	3
MTS 104	**R**	**Introductory Applied Mathematics**	**2**	**1**	**-**	**3**
MEE 102	**R**	**Workshop Practice**	**0**	**-**	**6**	**2**
GNS 102	**R**	**Use of English II**	**1**	**1**	**-**	**2**
CSC 102	**R**	**Introduction to Computing**	**1**	**-**	**3**	**2**
GNS 106	**R**	**Logic & Philosophy**	**1**	**1**	**-**	**2**
	Total					**22**

200 LEVEL 1st SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Unit**
CHE 205	R	Physical Chemistry I	1	-	3	2
MTS 201	**R**	**Mathematical Methods I**	**2**	**1**	**-**	**3**
CSC 201	**R**	**Introduction to FORTRAN Programming**	**2**	**-**	**3**	**3**
MEE 201	R	Manufacturing Technology I.	1	-	3	2
MEE 207	R	Applied Mechanics	2	1	-	3
EEE 201	**R**	**Basic Electrical & Electronics Engineering I**	**2**	**-**	**3**	**3**
MNE 201	**R**	**Engineer in Society**	**1**	**-**	**-**	**1**
MME 201	**R**	**Science of Materials.**	**2**	**1**	**-**	**3**
CSP 201	R	General Agriculture (Theory)	1	-	-	1
	Total					21

	University Required/Audited Courses for D.E students					
GNS 101	**R**	**Use of English I**	**1**	**1**	**0**	**2**
GNS 103	**R**	**Information Retrieval**	**1**	**0**	**0**	**1**
MEE 101	**R**	**Engineering Drawing I**	**1**	**0**	**6**	**3**

200 LEVEL 2ND SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
MTS 202	**R**	**Numerical Analysis I**	**2**	**-**	**3**	**3**
CVE 202	R	Strength of Materials I	2	-	3	3
MEE 202	R	Engineering Drawing II	1	-	6	3
MEE 206	R	Basic Thermodynamics	2	-	3	3
AGE 204	C	Basic Fluid Mechanics	2	-	3	3
PMT 210	**R**	**Principles of Economics**	**2**	**1**	**-**	**3**
CSP 210	R	General Agriculture (Practical).	-	-	6	2
EEE 202	R	Basic Electrical & Electronics Engineering II	2	-	3	3
	Total					23
Course Code			**L**	**T**	**P**	**Units**
AGE 210 (R)	**Long Vacation Training**		**-**	**-**	**12**	**4**

University Required/Audited Courses for D.E students						
MEE 102	**R**	**Workshop practice**	**0**	**-**	**6**	**2**
GNS 102	**R**	**Use of English II**	**1**	**1**	**-**	**2**
GNS 106	**R**	**Logic and Philosophy**	**1**	**1**	**-**	**2**

300 LEVEL 1st SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
MTS 315	R	Engineering Mathematics I	2	1	0	3
AGE 301	C	Engineering Statistics	2	0	0	2
AGE 311	C	Basic Agric. Engineering and Field Trip	1	0	3	2
AGE 315	C	Introduction to Environmental Technology	2	0	0	2
AGE 323	C	Mechanics of Machines	2	1	0	3
AGE 325	**C**	**Engineering Surveying and GIS**	**1**	**0**	**3**	**2**
MME 311	R	Engineering Metallurgy	2	1	0	3
APH 201	**R**	**Introduction to Animal Production & Health**	**1**	**-**	**3**	**2**
AEE 305	R	Principle of Rural Sociology & Agricultural Extension	2	1	0	3
EMT 301	R	Introduction to Entrepreneurship	2	0	0	2
	Total					24

300 LEVEL 2ND SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
MTS 316	R	Engineering Mathematics II	2	1	-	3
AGE 304	C	Theory of Farm Structure	2	-	-	2
AGE 312	C	Basic Hydraulics	1	-	3	2
AGE 328	C	Machine Drawing and Design	2	-	3	3
AGE 336	C	Soil Mechanics	2	-	3	3
**MNE 314	R	Technical Report Writing	1	1	-	2
CSP 202	R	Basic Soil Science	1	-	3	2
AGE 314	C	Basic Hydrology	1	-	3	2
EMT 302	R	Practical Skills in Entrepreneurship	-	-	9	3
	Total					**22**
Long Vacation Training						
AGE 305	**R**	**Students Industrial Training**				**4**

400 LEVEL 1ST SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
AGE 405	R	Agricultural Material Handling and Technology	1	-	3	2
AGE 407	C	Irrigation and Drainage	2	-	3	3
AGE 409	C	Farm Structures and Environmental Control	2	-	3	3
AGE 411	C	Modelling and Computer Application in Agricultural Engineering	1	-	3	2
AGE 413	C	Engineering Thermodynamics and Heat Transfer	2	-	3	3
AGE 415	C	Farm Power and Machinery	2	-	3	3
AGE 417	R	Farm Electrification and electronics	2	-	3	3
MTS 415	**R**	**Engineering Mathematics III**	**2**	**1**	**-**	**3**
	Total					22

400 LEVEL 2ND SEMESTER LONG VACATION (SIWES)						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
AGE 402	R	Industrial Training Assessed by Industrial based Supervisors	**0**	**0**	**0**	**4**
AGE 404	R	Industrial Training Assessed by FUTA Supervisors	**0**	**0**	**0**	**4**
AGE 406	R	Students' Report and Seminar presentation	**0**	**0**	**0**	**4**
	Total					**12**

500 LEVEL 1ST SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
AGE 503	R	Engineering Economics and Management	2	1	-	3
AGE 509	C	Soil and Water Conservation	2	-	-	2
AGE 511	C	Land Clearing and Development	2	-	-	2
AGE 513	C	Agricultural Engineering Seminar	2	-	-	2
AGE 519	C	Agricultural Machinery	2	-	3	3
AGE 599	C	Final Year Students Project	-	-	18	6
2 Electives		Electives				5/6
	Total					23/24
Electives (Choice of 5 or 6 units in any of the Groups A, B, or C)						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
GROUP A		**(Farm Power and Machinery Option)**				
AGE 505	E	Mechanics of Deformable Bodies	2	-	-	2
AGE 515	E	Agricultural Power	2	-	3	3
AGE 517	E	Engineering Properties and Handling of Agric. Materials	1	0	3	2
GNS 501	E	Industrial management	2	1	-	3
GROUP B		**(Crop Processing and Storage)**				
AGE 505	E	Mechanics of Deformable Bodies	2	-	-	2
AGE 517	E	Engineering Properties & Handling Agric Material	1	-	3	2

AGE 527	E	Advanced Thermodynamics	2	1	-	3
GNS 501	E	Industrial management	2	1	-	3
GROUP C		**(Soil & Water Engineering)**				
AGE 523	E	Irrigation Engineering	2	-	3	3
AGE 529	E	Agricultural Land Drainage & land Reclamation	2	-	-	2
AGE 531	E	Advanced Hydraulics	2	1	-	3
GNS 501	E	Industrial management	2	1	-	3

2ND SEMESTER						
COURSE CODE		**COURSE TITLE**	**L**	**T**	**P**	**Units**
AGE 504	C	Engineering Economics and Management	2	-	3	3
AGE 518	C	Soil and Water Conservation	2	-	-	2
AGE 522	C	Farm Transportation	2	-	-	2
AGE 532	C	Automotive Service and Maintenance	1	-	3	2
	***Electives					6/7
	Total					**15/16**
C	=	Core Course				
R	=	University/School Required Course				
E	=	Elective Course				

Electives (Choice of 9 units in any of the Group A, B, or C)

COURSE CODE	**STATUS**	**COURSE TITLE**	**L**	**T**	**P**	**UNITS**
GROUP A		**Farm Power and Machinery Option**				
AGE 506	E	Design of Agricultural Machinery	2	-	3	3
AGE 508	E	Operations and Management of Farm Power and Machinery Systems	2	-	3	3
AGE 512	E	Processing and Storage of Agric. Materials	2	1	-	3
GROUP B		**Bio-Processing and Storage Option**				
AGE 506	E	Design of Agricultural Machinery	2	-	3	3
AGE 512	E	Processing and Storage of Agric. Materials	2	1	-	3
AGE 524	E	Solar Energy application to Processing & Storage of Agricultural Products	2	-	3	3
GROUP C		**Soil and Water Engineering Option**				
AGE 526	E	Design of Irrigation and Soil Conservation Structures	2	-	3	3
AGE 528	E	Rural Water Supply and Sanitation	2	-	3	3
AGE 534	E	Environmental Engineering in Agriculture	2	1	-	3