



आईएफटीएम विश्वविद्यालय, मुरादाबाद, उत्तर प्रदेश
IFTM University, Moradabad, Uttar Pradesh
NAAC ACCREDITED

Academic Ordinance
For
Master of Technology (M.Tech) Programme
(Effective from the Session 2021-22)

(Amended with CBCS as per UGC Guidelines
&

Approved by the Academic Council in the Meeting held on September 25, 2021)

IFTM UNIVERSITY

(Established under U.P. Govt. Act No. 24 of 2010 and approved under section 22 of UGC Act 1956)

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Sanjeev Assawaal

Registrar
IFTM University
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REGULATIONS

1. Short Title and Commencement

These regulations shall be called as "The Regulations for the Master of Technology (M.Tech) Degree Program (CBCS) of the IFTM University, Moradabad", latest revised from the Academic Year 2021-22. The regulations framed are subject to modifications from time to time by IFTM University, Moradabad.

2. Minimum qualification for admission

Candidates who have passed the Bachelor's degree in relevant discipline of Engineering / Technology or equivalent with first division are eligible for the admission to M.Tech. programmes. The exact eligibility criteria for admission to various M.Tech. programmes shall be prescribed by the University at the time of admission. Preference will be given to candidates with valid GATE score. No written test shall be conducted for the GATE qualified candidates for their admission. If seats remain vacant, candidates without valid GATE score can be admitted on the basis of an interview. Modification in rules for admission shall be made as per the provisions of UGC on approval of the competent authority. The Academic Council of the University has the power to repeal or modify the eligibility criteria for admission.

3. Duration of the program

The course of study for M.Tech shall extend over a period of four semesters (two academic years) for students. The curricula and syllabi for the program shall be prescribed from time to time by IFTM University, Moradabad.

4. Medium of instruction and examinations

Medium of instruction and examination shall be in English.

5. Working days in each semester

Each semester shall consist of not less than 90 working days. The odd semesters shall be conducted from the month of June/July to November/December and the even semesters shall be conducted from December/ January to May/June in every calendar year.

6. Attendance and progress

A candidate is required to put in at least 75% attendance to appear in End-Semester/Annual examination. However, the same can be condoned to 15% on medical grounds or for other genuine reasons beyond the control of students.

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7. Program/Course credit Structure

As per the philosophy of Credit Based Semester System, certain quantum of academic work viz. theory classes, practical classes, project report, internship etc. are measured in terms of credits. On satisfactory completion of the courses, a candidate earns credits. The amount of credit associated with a course is dependent upon the number of hours of instruction per week in that course. Similarly, the credit associated with any of the other academic, co/extra-curricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week.

7A. Credits and Grade System

(a) All programmes shall have credits associated with them as per their Lecture/Tutorial/Practical (LTP) structure and shall be determined as follows:

- One lecture hour per week per semester shall be assigned one credit.
- One practical hour per week shall be assigned half credit.

However, the credits associated with every programmes will be a whole number, i.e., wherever the sum comes out to be in half credit on calculation following the aforesaid process, the half shall be rounded to the next whole number.

(b) The letter grades based upon the overall marks obtained in a subject will be as follows:

S. No.	Marks	Letter Grade	Grade Point
1.	≥ 90	A+	10
2.	80-89	A	9
3.	70-79	B+	8
4.	60-69	B	7
5.	50-59	C+	6
6.	40-49	C	5
7.	35-39	D	4
8.	30-34	E	2
9.	< 30	F	0

'E' & 'F' Grade will be treated as Carry Over Paper.

In addition to the above grades, there shall be two more letter grades 'I' and 'AB' which shall stand for Incomplete and Absent Grades, respectively.

(c) **Semester Grade Point Average (SGPA)**

The SGPA is a weighted average of the grade points earned by a student in all the papers credited and described his/her academic performance in a semester. If the grade points associated with the letter grades awarded to a student are $g_1, g_2, g_3, \dots, g_k$, etc. and the corresponding credits are $c_1, c_2, c_3, \dots, c_k$, the SGPA is given by :

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$$SGPA = \frac{c_1 g_1 + c_2 g_2 + c_3 g_3 + \dots + c_k g_k}{c_1 + c_2 + c_3 + \dots + c_k}$$

Where, k is the number of papers for which the candidate remains registered during the semester.

(d) Cumulative Grade Point Average (CGPA)

The Cumulative Grade Point Average (CGPA) indicates the overall academic performance of a student in all the papers registered in that particular academic year. It is computed in the same manner as the SGPA, considering all the papers (say, n), and is given by:

$$CGPA = \frac{\sum_{i=1}^n c_i g_i}{\sum_{i=1}^n c_i}$$

(e) Final CGPA

It is the weighted average of the CGPA of all years of study.

(f) Percentage equivalence of CGPA/Final CGPA

The conversion of CGPA/Final CGPA to exact percentage of marks does not have perfect rationale. However, its equivalent at best can be arrived at by multiplying by 10.00.

7B. Change of Grade already awarded

Letter Grade 'E' will be changed into Letter Grade 'D' up to a maximum of 03 papers at the time of promotion to the next academic year provided he/she can be declared to have passed the academic year without any carry over paper, by changing the Grade.

8. Academic work

A regular record of attendance both in Theory and Practical shall be maintained by the teaching staff of respective courses.

9. Course of study

The course of study for M.Tech shall include Semester-Wise Theory & Sessional. The number of hours to be devoted to each theory, tutorial and practical course in any semester shall not be less than 40 sessions.

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**M. Tech EE I Semester
Theory Papers (Total 04)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMPS-101	Wind and Solar Power Systems	3	1	0	20	10	30	70	100	4
2.	ECC	TMPS-102	Electrical Power Quality	3	1	0	20	10	30	70	100	4
3.	ECC	TMPS-103	Advanced Instrumentation	3	1	0	20	10	30	70	100	4
4.	ECC	TMPS-104	Neural Network, Fuzzy logic and Genetic Algorithms	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

**M. Tech EE II Semester
Theory Papers (Total 04)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMPS-201	Electrical Drives and Control	3	1	0	20	10	30	70	100	4
2.	ECC	TMPS-202	EHV AC & DC Transmission	3	1	0	20	10	30	70	100	4
3.	ECC	TMPS-203	Restructuring & Deregulation of power system	3	1	0	20	10	30	70	100	4
4.	EDE	TMPS-204	Elective-I	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

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M. Tech EE III Semester
Theory Papers (Total 03)
Seminar (Total 01)
Pre-dissertation (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMPS-301	SCADA & Energy Management System	3	1	0	20	10	30	70	100	4
2.	ECC	TMPS-302	Power System Transients	3	1	0	20	10	30	70	100	4
3.	EDE	TMPS-303	Elective-II	3	1	0	20	10	30	70	100	4
PRACTICALS / PROJECT												
4.	DS	TMPS-304	Seminar	0	0	4	-	-	100	-	100	2
5.	DS	TMPS-351	Pre-dissertation*	0	0	4	-	-	50	50	100	2
TOTAL				09	03	08	-	-	-	-	500	16

M. Tech EE IV Semester
Dissertation Work (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
PRACTICALS / PROJECT												
1.	DS	TMPS-451	Dissertation Work	0	0	20	-	-	250	250	500	10
TOTAL				-	-	20	-	-	-	-	500	10

M. Tech EC I Semester
Theory Papers (Total 04)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMEC-101	Advanced Semiconductor Devices & circuits	3	1	0	20	10	30	70	100	4
2.	ECC	TMEC-102	Advanced Digital Communication	3	1	0	20	10	30	70	100	4
3.	ECC	TMEC-103	Advanced Digital Signal Processing	3	1	0	20	10	30	70	100	4
4.	ECC	TMEC-	Departmental Elective-I*	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

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**M. Tech EC II Semester
Theory Papers (Total 04)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMEC-201	Advanced Information Theory and Coding	3	1	0	20	10	30	70	100	4
2.	ECC	TMEC-202	Advanced Digital Logic Design	3	1	0	20	10	30	70	100	4
3.	ECC	TMEC-203	Wireless Communication Systems	3	1	0	20	10	30	70	100	4
4.	EDE	TMEC-	Departmental Elective-II*	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

**M. Tech EC III Semester
Theory Papers (Total 03)
Seminar (Total 01)
Pre-dissertation (Total 01)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMEC-301	Optical Fiber Communication	3	1	0	20	10	30	70	100	4
2.	ECC	TMEC-	Departmental Elective -III*	3	1	0	20	10	30	70	100	4
3.	EDE	TMEC-	Departmental Elective -IV*	3	1	0	20	10	30	70	100	4
PRACTICALS / PROJECT												
4.	DS	TMEC-351	Seminar	0	0	4	-	-	100	-	100	2
5.	DS	TMEC-352	Dissertation*	0	0	4	-	-	50	50	100	2
TOTAL				09	03	08	-	-	-	-	500	16

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**M.Tech EC IV Semester
Dissertation Work (Total 01)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				CT	AS +AT	Total						
PRACTICALS / PROJECT												
1.	DS	TMEC-451	Dissertation	0	0	20	-	-	250	250	500	10
TOTAL				-	-	20	-	-	-	-	500	10

**M. Tech ME I Semester
Theory Papers (Total 04)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				CT	AS +AT	Total						
THEORY												
1.	FSC	TMME-101	Advanced Research Operations	3	1	0	20	10	30	70	100	4
2.	ECC	TMME-102	Advanced Thermal Engineering	3	1	0	20	10	30	70	100	4
3.	ECC	TMME-103	Modeling and Simulation	3	1	0	20	10	30	70	100	4
4.	EDE	MME-1	Elective - I	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

**M Tech ME II Semester
Theory Papers (Total 04)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				CT	AS +AT	Total						
THEORY												
1.	FSC	TMME-201	Numerical Methods & Analysis	3	1	0	20	10	30	70	100	4
2.	ECC	TMME-202	Advanced Mechanics of Solids	3	1	0	20	10	30	70	100	4
3.	ECC	TMME-203	Combustion Engineering	3	1	0	20	10	30	70	100	4
4.	EDE	MME- 2	Elective -II	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

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M. Tech ME III Semester
Theory Papers (Total 03)
Seminar (Total 01)
Pre-dissertation (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMME-301	Production Technology	3	1	0	20	10	30	70	100	4
2.	ECC	TMME-302	Non Destructive Testing	3	1	0	20	10	30	70	100	4
3.	EDE	MME-3	Elective-III	3	1	0	20	10	30	70	100	4
PRACTICALS / PROJECT												
4.	DS	TMME-351	Seminar	0	0	4	-	-	100	-	100	2
5.	DS	TMME-352	Pre-Dissertation	0	0	4	-	-	50	50	100	2
TOTAL				09	03	08	-	-	-	-	500	16

M. Tech ME IV Semester
Dissertation Work (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS+A T	Total			
PRACTICALS / PROJECT												
1.	DS	TMME-451	Dissertation Work	0	0	20	-	-	250	250	500	10
TOTAL				-	-	20	-	-	-	-	500	10

M. Tech CE I Semester
Theory Papers (Total 04)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMCE-101	Advanced Structural Analysis	3	1	0	20	10	30	70	100	4
2.	ECC	TMCE-102	Advanced RCC Design	3	1	0	20	10	30	70	100	4
3.	ECC	TMCE-103	Advanced Concrete Technology	3	1	0	20	10	30	70	100	4
4.	EDE	TMCE-I	Elective - I	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

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**M. Tech CE II Semester
Theory Papers (Total 04)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMCE-201	Structural Dynamics	3	1	0	20	10	30	70	100	4
2.	ECC	TMCE-202	Design of Pre-stressed Concrete Structures	3	1	0	20	10	30	70	100	4
3.	ECC	TMCE-203	Theory of Elasticity	3	1	0	20	10	30	70	100	4
4.	EDE	TMCE-II	Elective – II	3	1	0	20	10	30	70	100	4
TOTAL				12	04	00	-	-	-	-	400	16

**M. Tech CE III Semester
Theory Papers (Total 03)
Seminar (Total 01)
Pre-dissertation (Total 01)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMCE-301	Theory of Plates and Shells	3	1	0	20	10	30	70	100	4
2.	FSC	TMCE-302	Finite Element Methods	3	1	0	20	10	30	70	100	4
3.	EDE	TMCE-III	Elective-III	3	1	0	20	10	30	70	100	4
PRACTICALS / PROJECT												
4.	DS	TMCE-351	Seminar	0	0	4	-	-	100	-	100	2
5.	DS	TMCE-352	Pre-Dissertation	0	0	4	-	-	50	50	100	2
TOTAL				09	03	08	-	-	-	-	500	16

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**M. Tech CE IV Semester
Dissertation Work (Total 01)**

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
PRACTICALS / PROJECT												
1.	DS	TMCE-451	Dissertation Work	0	0	20	-	-	250	250	500	10
TOTAL				-	-	20	-	-	-	-	500	10

**M. Tech CS I Semester
Theory Papers (Total 04)
practical (Total 01)**

S.NO	Category	COURSE CODE	SUBJECT	PERIODS			SESSIONAL				ESE	TOTAL	CREDITS
				L	T	P	TA	AT	CT	Total			
THEORY													
1.	ECC	TMCS101	Advanced Distributed System	3	1	0	5	5	10+10	30	70	100	4
2.	EDE I	TMCS102	Engineering Department Elective -I	3	1	0	5	5	10+10	30	70	100	4
3.	ECC	TMCS103	Advance Computer Architecture	3	1	0	5	5	10+10	30	70	100	4
4.	ECC	TMCS104N	Soft Computing	3	1	0	5	5	10+10	30	70	100	4
PRACTICALS / PROJECT													
5.	ELC	TMCS155	Computer System Lab-1	0	0	2	10	10	30	50	50	100	2
											500	18	

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M. Tech CS II Semester
Theory Papers (Total 04)
Practical (Total 01)

S.NO	Category	COURSE CODE	SUBJECT	PERIODS			SESSIONAL				ESE	TOTAL	CREDITS
				L	T	P	TA	AT	CT	Total			
1.	ECC	TMCS201	Advanced Computer Networks	3	1	0	5	5	10+10	30	70	100	4
2.	ECC	TMCS202N	Computer Vision and Image Processing	3	1	0	5	5	10+10	30	70	100	4
3.	ECC	TMCS203N	Cloud Computing	3	1	0	5	5	10+10	30	70	100	4
4.	EDE II	TMCS204	Engineering Department Elective -II	3	1	0	5	5	10+10	30	70	100	4
PRACTICALS/Seminar/Projects													
5.	ELC	TMCS255	Computer System Lab-2	0	0	2	10	10	30	50	50	100	2
											500	18	

M Tech CS III Semester
Theory Papers (Total 03)
Practical (Total 01)

S.NO	Category	COURSE CODE	SUBJECT	PERIODS			SESSIONAL				ESE	TOTAL	CREDITS
				L	T	P	TA	AT	CT	Total			
1.	EDE III	TMCS301	Engineering Department Elective-III	3	1	0	5	5	10+10	30	70	100	4
2.	EDE IV	TMCS302(X)	Engineering Department Elective-IV	3	1	0	5	5	10+10	30	70	100	4
3.	PROJ	TMCS303	Independent Study and Seminar based on MOOCS	0	0	2			80	100	--	100	2
PRACTICALS/Seminar/Projects													
4.	PROJ	TMCS354	Pre-Dissertation	0	0	2			100	100	100	200	4
											500	14	

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**M Tech CS IV Semester
Dissertation Work (Total 01)**

S.NO	COURSE CODE	SUBJECT	PERIODS			SESSIONAL				ESE	TOTAL	CREDIT S	
			L	T	P	TA	AT	CT	Total				
PRACTICALS/Seminar/Projects													
1.	PROJ	TMCS451	Dissertation	0	0	30	150	50	150	350	150	500	15
				0	0	30	150	50	150	350	150	500	15

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M.Tech BT I Semester
Theory Papers (Total 05)
Practical (Total 03)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME					Course Total	Credits
							Mid Term Exam			External Exam			
				L	T	P	CT	AS +AT	Total				
THEORY													
1.	ECC	TMTB101T	Advanced Bioprocess Engineering	3	1	0	20	10	30	70	100	4	
2.	ECC	TMTB102T	Advanced Bioseparation Engineering	3	1	0	20	10	30	70	100	4	
3.	ECC	TMTB103T	Bioinformatics	3	1	0	20	10	30	70	100	4	
4.	FSC	TMTB104T	Biochemistry, Biophysics & Molecular dynamics	3	1	0	20	10	30	70	100	4	
5.	EDE	Engineering Departmental Elective-I*	*Only 01 paper is to be chosen from the basket of the departmental electives having 03 papers, provided by the school	3	1	0	20	10	30	70	100	4	
PRACTICALS / PROJECT													
6.	ELC	TMTB101P	Advanced Bioprocess Engineering Lab	0	0	2	-	-	30	70	100	1	
7.	ELC	TMTB102P	Advanced Bioseparation Engineering Lab	0	0	2	-	-	30	70	100	1	
8.	ELC	TMTB103P	Bioinformatics Lab	0	0	2	-	-	30	70	100	1	
TOTAL				15	05	06	-	-	240	560	800	23	

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M Tech BT II Semester
Theory Papers (Total 05)
Practical(Total 03)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMTB201T	Microbiological Technology	3	1	0	20	10	30	70	100	4
2.	ECC	TMTB202T	Enzyme & Protein Engineering	3	1	0	20	10	30	70	100	4
3.	ECC	TMTB203T	Recombinant DNA Technology	3	1	0	20	10	30	70	100	4
4.	FSC	TMTB204T	Biophysical & Biochemical techniques	3	1	0	20	10	30	70	100	4
5.	EDE	Engineering Departmental Elective-II*	*Only 01 paper is to be chosen from the basket of the departmental electives having 03 papers, provided by the school	3	1	0	20	10	30	70	100	4
PRACTICALS / PROJECT												
6.	ELC	TMTB201P	Microbiological Technology Lab	0	0	2	-	-	30	70	100	1
7.	ELC	TMTB202P	Enzyme & Protein Engineering Lab	0	0	2	-	-	30	70	100	1
8.	ELC	TMTB203P	Recombinant DNA Technology Lab	0	0	2	-	-	30	70	100	1
TOTAL				15	05	06	-	-	240	560	800	23

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M Tech BT III Semester
Theory Papers (Total 05)
Practical (Total 03)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
THEORY												
1.	ECC	TMTB301T	Immunotechnology & Immunoinformatics	3	1	0	20	10	30	70	100	4
2.	ECC	TMTB302T	Bioreactor Analysis & Design	3	1	0	20	10	30	70	100	4
3.	ECC	TMTB303T	Solid Waste Management	3	1	0	20	10	30	70	100	4
4.	ECC	TMTB304T	Pharmaceutical Biotechnology	3	1	0	20	10	30	70	100	4
5.	EDE	Engineering Departmental Elective-III*	*Only 01 paper is to be chosen from the basket of the departmental electives having 03 papers, provided by the school	3	1	0	20	10	30	70	100	4
PRACTICALS / PROJECT												
6.	ELC	TMTB301P	Immunotechnology & Immunoinformatics Lab	0	0	2	-	-	30	70	100	1
7.	ELC	TMTB303P	Solid Waste Management Lab	0	0	2	-	-	30	70	100	1
8.	PDT	TMTB353P	Colloquium	0	0	2	-	-	30	70	100	1
TOTAL				15	05	06	-	-	240	560	800	23

M Tech BT IV Semester
Dissertation Work (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
							Mid Term Exam			External Exam		
				L	T	P	CT	AS +AT	Total			
PRACTICALS / PROJECT												
1.	PDT	TMTB481P	Dissertation	0	0	20	-	-	150	250	400	20
TOTAL				0	0	20	-	-	150	250	400	20

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M. Tech. AG (PFE) I Semester
Theory Papers (Total 04)
Practicals (Total 02)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS+AT	Total			
THEORY												
1.	ECC	TMAE101	Advanced Food Process Engineering	3	0	0	20	10	30	70	100	3
2.	ECC	TMAE102	Food Plant Design	3	0	0	20	10	30	70	100	3
3.	ESC	TMBT101	Food Chemistry	3	0	0	20	10	30	70	100	3
4.	ESC	TMME104	Heat and Mass Transfer	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
							IA	AT				
5.	ELC	TMAE151	Food Process Engineering Lab	0	0	2	20	10	30	70	100	1
6.	ELC	TMBT151	Food Chemistry Lab	0	0	2	20	10	30	70	100	1
			TOTAL	12	00	04					600	14

M. Tech. AG (PFE) II Semester
Theory Papers (Total 04)
Practical (Total 02)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS+AT	Total			
THEORY												
1.	EEC	TMAE201	Unit Operations in Food Process Engineering	3	0	0	20	10	30	70	100	3
2.	EEC	TMAE202	Engineering Properties of Food Materials	3	0	0	20	10	30	70	100	3
3.	EDE	TMAE203	Elective I	3	0	0	20	10	30	70	100	3
4.	ESC	TMMAG204	Agricultural Statistics and Experimental Designs	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
							IA	AT				
5.	ELC	TMAE251	Unit operations Lab	0	0	2	20	10	30	70	100	1
6.	ELC	TMMAG254	Agricultural Statistics and Experimental Designs Lab	0	0	2	20	10	30	70	100	1
			TOTAL	12	00	04					600	14

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M. Tech. AG (PFE) III Semester
Theory Papers (Total 03)
Practicals (Total 03)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMAE301	Food Quality and Safety Engineering	3	0	0	20	10	30	70	100	3
2.	ECC	TMAE302	Food Packaging and Technologies	3	0	0	20	10	30	70	100	3
3.	EDE	TMAE303	Elective II	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
							IA	AT				
4.	ELC	TMAE351	Food Quality and Safety Engineering Lab	0	0	2	20	10	30	70	100	1
5.	PDT	TMAE352	Seminar	0	0	4	-	100	100	-	100	4
6.	PDT	TMAE353	Pre-Dissertation	0	0	4	-	50	50	50	100	4
			Total	09	00	10					600	18

M. Tech. Ag. (PFE) IV Semester
Dissertation work (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
PRACTICALS / PROJECT												
1.	PDT	TMAE451	Dissertation Work	-	-	20		300	300	300	600	20
			Total	-	-	20					600	20

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M. Tech. AG (FMPE) I Semester
Theory Papers (Total 04)
Practicals (Total 02)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMFM101	Design of Farm Power and Machinery Systems	3	0	0	20	10	30	70	100	3
2.	ECC	TMFM 102	Testing and Evaluation of Tractors and Farm Equipment	3	0	0	20	10	30	70	100	3
3.	ECC	TMFM 103	Soil Dynamics in Tillage and Traction	3	0	0	20	10	30	70	100	3
4.	EDE	TMFM104 A	Elective Course	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
							IA	AT				
5.	ELC	TMFM 151	Farm Power and Machinery Systems Lab	0	0	2	20	10	30	70	100	1
6.	ELC	TMFM 152	Testing and Evaluation of Tractors and Farm Equipment Lab	0	0	2	20	10	30	70	100	1
TOTAL				12	00	04					600	14

M. Tech. AG (FMPE) II Semester
Theory Papers (Total 04)
Practicals (Total 02)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMFM 201	System Simulation and Computer Aided Problem Solving in Engineering	3	0	0	20	10	30	70	100	3
2.	ECC	TMFM202	Advances in Farm Machinery and Power Engineering	3	0	0	20	10	30	70	100	3
3.	EDE	TMFM203 (B)	Elective Course	3	0	0	20	10	30	70	100	3
4.	ESC	TMMAG204	Agricultural Statistics and Experimental Designs	3	0	0	20	10	30	70	100	3
PRACTICALS /PROJECT												
							IA	AT				
5.	ELC	TMFM 251	Computer Aided Design Lab	0	0	2	20	10	30	70	100	1
6.	ELC	TMMAG254	Agricultural Statistics and Experimental Designs Lab	0	0	2	20	10	30	70	100	1
TOTAL				12	00	04					600	14


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M. Tech. AG (FMPE) III Semester
Theory Papers (Total 03)
Practicals (Total 03)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMFM301	Tractor Design	3	0	0	20	10	30	70	100	3
2.	ECC	TMFM 302	Applied Instrumentation in Farm Machines and Stress Analysis	3	0	0	20	10	30	70	100	3
3.	EDE	TMFM303 C	Elective Course	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
4.	ELC	TMFM351	Tractor Design Lab	0	0	2	20	10	30	70	100	1
5.	PDT	TMFM352	Seminar	0	0	4	-	100	100	-	100	4
6.	PDT	TMAE353	Pre-Dissertation	0	0	4	-	50	50	50	100	4
			Total	09	0	10					600	18

M. Tech. AG (FMPE) III Semester
Dissertation work (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
PRACTICALS / PROJECT												
1.	PDT	TMFM451	Dissertation Work	-	-	20	-	300	300	300	600	20
			Total	-	-	20	-	-	-	-	600	20

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M. Tech. AG (SWCE) I Semester
Theory Papers (Total 04)
Practicals (Total 02)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS+AT	Total			
THEORY												
1.	ECC	TMSWE101	Watershed Hydrology	3	0	0	20	10	30	70	100	3
2.	ECC	TMSWE102	Water Quality and Environment	3	0	0	20	10	30	70	100	3
3.	ECC	TMSWE103	Soil and Water Conservation Engineering	3	0	0	20	10	30	70	100	3
4.	EDE	TMSWE104	Elective I	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
							IA	AT				
5.	ELC	TMSWE151	Watershed Hydrology Lab	0	0	2	20	10	30	70	100	1
6.	ELC	TMSWE152	Water Quality and Environment Lab	0	0	2	20	10	30	70	100	1
			TOTAL	12	00	04					600	14

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M. Tech. AG (SWCE) II Semester
Theory Papers (Total 04)
Practicals (Total 02)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMSWE201	Open Channel Flow	3	0	0	20	10	30	70	100	3
2.	ECC	TMSWE202	Planning and Management of Watershed	3	0	0	20	10	30	70	100	3
3.	ESC	TMMAG204	Agricultural Statistics and Experimental Designs	3	0	0	20	10	30	70	100	3
4.	EDE	TMSWE203	Elective II	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
							IA	AT				
5.	ELC	TMSWE251	Open Channel Flow Lab	0	0	2	20	10	30	70	100	1
6.	ELC	TMMAG254	Agricultural Statistics and Experimental Designs Lab	0	0	2	20	10	30	70	100	1
			TOTAL	12	00	04					600	14

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M. Tech. AG (SWCE) III Semester
Theory Papers (Total 03)
Practical (Total 01)
Seminar (Total 01)
Pre-dissertation (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
THEORY												
1.	ECC	TMSWE301	GIS and Remote Sensing for Land and Water Resources Management	3	0	0	20	10	30	70	100	3
2.	ECC	TMSWE302	Sediment Transport	3	0	0	20	10	30	70	100	3
3.	EDE	TMSWE303	Elective III	3	0	0	20	10	30	70	100	3
PRACTICALS / PROJECT												
							IA	AT				
4.	ELC	TMSWE351	GIS and Remote Sensing for Land and Water Resources Management Lab	0	0	2	20	10	30	70	100	1
5.	PDT	TMSWE 352	Seminar	0	0	4	-	100	100	-	100	4
6.	PDT	TMSWE 353	Pre-Dissertation	0	0	4	-	-	50	50	100	4
			Total	09	00	10					600	18

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M. Tech. AG (SWCE) IV Semester

Dissertation (Total 01)

S.N.	Category	Course Code	Course Name	Periods			EVALUATION SCHEME				Course Total	Credits
				L	T	P	Mid Term Exam			External Exam		
							CT	AS +AT	Total			
PRACTICALS / PROJECT												
1.	PDT	TMSWE451	Dissertation Work	-	-	20		300	300	300	600	20
			Total	-	-	20					600	20

LIST OF ELECTIVES (EE)

Elective – I

1. TMPS-204(A) Power System Dynamics and Control
2. TMPS-204(B) Advanced Electromagnetic Theory
3. TMPS-204(C) Digital Signal and image Processing
4. TMPS-204(D) Advanced Topics in Power System
5. TMPS-204(E) Sustainable energy system
6. TMPS-204(F) FACTS
7. TMPS-204 (G) Industrial Automation and Control
8. TMPS-204(H) Computer Controlled Systems
9. TMPS-204(I) Smart Grid
10. TMPS-204(J) Modeling & Simulation of power Electronic circuits
11. TMPS-204(K) Power System Optimisation
12. TMPS-204(L) Advanced Protecting Relaying
13. TMPS-204(M) Smart Sensors & Instrumentation

Elective – II

1. TMPS-303 (A) Transmission & Distribution Automation
2. TMPS-303 (B) Power System Reliability
3. TMPS-303 (C) Advanced Control System
4. TMPS-303 (D) Power Electronics for Renewable Energy Systems
5. TMPS 303(E) Power System Modeling
6. TMPS-303 (F) Control System design and estimation
7. TMPS-303 (G) Smart Grid Design and Analysis

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8. TMPS-303 (H)
9. TMPS-303 (I)
10. TMPS-303 (J)
11. TMPS-303 (K)
12. TMPS-303 (L)
13. TMPS-303 (M)

Advanced Digital Communication
 Optimization Techniques
 Energy System Management
 Non Conventional Energy Sources & Energy Converters
 Power System Planning
 Electric and Hybrid Vehicles

LIST OF ELECTIVES (EC)

Elective – I

- | | |
|-------------|--|
| 1. TMEC010 | VLSI Technology |
| 2. TMEC011 | Microwave Engineering |
| 3. TMEC012 | Artificial Intelligence and its Applications |
| 4. TMEC013 | Parallel Processing |
| 5. TMEC015 | Internet of Things |
| 6. TMEC 016 | Introduction to Information Security |
| 7. TMEC 017 | Automotive Electronics |
| 8. TMEC018 | Electronic waste management |

Elective – II

- | | |
|------------|---|
| 1. TMEC020 | VLSI Design |
| 2. TMEC021 | Antenna System Design |
| 3. TMEC022 | Simulation & Modelling |
| 4. TMEC023 | Adaptive Signal Processing |
| 5. TMEC024 | High Performance Communication Networks |
| 6. TMEC025 | Automotive Software Engineering |

Elective – III & Elective – IV

- | | |
|-------------|---------------------------------------|
| 1. TMEC030 | Neural Network and Fuzzy logic |
| 2. TMEC031 | Optical Networks |
| 3. TMEC032 | Plcs and SCADA |
| 4. TMEC033 | Speech Processing |
| 5. TMEC034 | Digital Image Processing and Analysis |
| 6. TMEC035 | Cryptography & Network Security |
| 7. TMEC036 | Bio Informatics |
| 8. TMEC037 | Nano Electronics Devices Engineering |
| 9. TMEC038 | Advanced Embedded Systems Design |
| 10. TMEC039 | Robotics Automation |
| 11. TMEC040 | Automotive Transmission |

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|--------------------------|-----------------------------------|
| 12. TMEC041 | Chassis and Body Electronics |
| 13. TMEC042 | Vehicle Body Engineering & Safety |
| 14. TMEC043 | Hybrid Electric Vehicles (HEV's) |
| 15. TMEC044 | Vehicle Engineering |
| 16. TMEC045 | Automotive Instrumentation |
| 17. TMEC046 | PLCs and Industrial Automation |
| 18. M.Tech ME-I Semester | |

LIST OF ELECTIVES (ME)

Elective – I

- | | |
|--------------|----------------------------------|
| 1. TMME 111 | Advanced Mechanics of Solids |
| 2. TMME 112 | Advanced Material Technology |
| 3. TMME 113 | Production, Planning and Control |
| 4. TMME 114 | Interfacial Tribology |
| 5. TMME 115 | Metal Casting |
| 6. TMME 116 | Machining Science |
| 7. TMME 117 | Advanced Welding Technology |
| 8. TMME 118 | CNC, FMS & CIM |
| 9. TMME 119 | Unconventional Machining |
| 10. TMME 120 | Enterprise Resource Planning |
| 11. TMME 121 | Advanced Computer Aided Design |
| 12. TMME 122 | Advanced Machine Design |
| 13. TMME 123 | Fracture Mechanics |

Elective – II

- | | |
|--------------|--|
| 1. TMME 211 | Industrial Automation and Robotics |
| 2. TMME 212 | Advanced Mechanical Vibrations |
| 3. TMME 213 | Supply Chain Management |
| 4. TMME 214 | Heat Treatment Processes |
| 5. TMME 215 | Design of Production Tooling |
| 6. TMME 216 | Machine Tool Design |
| 7. TMME 217 | Product Design and Development |
| 8. TMME 218 | Industrial Design and Ergonomics |
| 9. TMME 219 | Micro Manufacturing |
| 10. TMME 220 | Concurrent Engineering |
| 11. TMME 221 | Reliability, Maintenance, Management, and Safety |
| 12. TMME 222 | Theory of Plasticity |
| 13. TMME 223 | Rapid Prototyping and Tooling |

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1. MME 311
2. MME 312
3. MME 313
4. MME 314
5. MME 315
6. MME 316
7. MME 317
8. MME 318
9. MME 319
10. MME 320
11. TMME 321
12. TMME 322
13. TMME 323

Elective – III

- Neural Network and Fuzzy Systems
- Micro-Electro-Mechanical Systems
- Advance Instrumentation
- Industrial Tribology
- Advance Fluid Mechanics
- Total Quality Management
- Engineering Design Optimization
- Research Methodology
- Nanotechnology and its Applications
- Gas Turbines and Jet Propulsion
- Design of Experiments
- Technology of Competitive Manufacturing
- Energy Conservation and Management

LIST OF ELECTIVES (CE)

Elective – I

- | | |
|----------------|--|
| 1. TMCE106 | Earth retaining Structures |
| 2. TMCE011 | Soil Structure Interaction |
| 3. TMCE012 | Advance Design of Steel Structures |
| 4. TMCE013 | Limit State Design of Concrete Structures |
| 5. TMCE014 | Matrix Methods in Structural Analysis |
| 6. TMCE015 | Advanced Fluid Mechanics |
| 7. TMCE016 | Building Architecture & Planning |
| 8. TMCE017 | Precast & Composite Structure |
| 9. TMCE018 | Advance design of hydraulic structure |
| 10. TMCE019 | Numerical method in Geotechnical Engineering |
| 11. TMCE019(A) | Sustainable water and sanitation system |
| 12. TMCE019(B) | Infrastructure Development |
| 13. TMCE019(C) | Applies Elasticity and Plasticity |
| 14. TMCE019(D) | Computer Application in Water resource Engineering |

Elective – II

- | | |
|------------|--|
| 1. TMCE207 | Water Power Engineering |
| 2. TMCE021 | Advance Design of Metal Structures |
| 3. TMCE022 | Numerical Methods in Civil Engineering |
| 4. TMCE023 | Rock Mechanics |
| 5. TMCE024 | Design of Bridges |
| 6. TMCE025 | Design of Pavements |

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|----------------|---|
| 7. TMCE026 | Structural Design of foundation and Retaining structure |
| 8. TMCE027 | Earthquake Geotechnical Engineering |
| 9. TMCE028 | Water resources development and management |
| 10. TMCE029(A) | Marine Construction |
| 11. TMCE029(B) | Computational Method in structural Engineering |
| 12. TMCE029(C) | Experimental Stress Analysis |
| 13. TMCE029(D) | Low cost materials and construction Techniques. |
| 14. TMCE029(E) | Open channel Hydraulics |
| 15. TMCE029(F) | Strength and Deformation behaviour of soil |

Elective – III

- | | |
|----------------|--|
| 1. TMCE305 | Theory of plasticity |
| 2. TMCE031 | Earthquake Analysis & Design of Structures |
| 3. TMCE032 | Design of Steel Bridges |
| 4. TMCE033 | Analysis and Design of Shell Structures |
| 5. TMCE034 | Advanced Soil Mechanics |
| 6. TMCE035 | Repair Rehabilitation and Retrofitting of Building |
| 7. TMCE036 | Ground water flow and pollution modeling |
| 8. TMCE037 | Numerical Analysis in Infrastructure Engineering |
| 9. TMCE038 | Cost effective and Ecofriendly construction |
| 10. TMCE039 | Plastic Analysis of structures |
| 11. TMCE039(A) | Construction costing and financial Management |
| 12. TMCE039(B) | Municipal Solid waste Management |
| 13. TMCE039(C) | Structural Health Monitoring and Rehabilitations |

LIST OF ELECTIVES (CS)

Elective – I

- | | |
|---------------|---------------------------|
| 1. TMCS102(1) | Advanced Algorithms |
| 2. TMCS102(2) | Computational Geometry |
| 3. TMCS102(3) | Big Data Analytics |
| 4. TMCS102(4) | Data Mining & Warehousing |

Elective – II

- | | |
|---------------|-----------------------------------|
| 1. TMCS204(1) | Object Oriented Software Modeling |
| 2. TMCS204(2) | Game Theory |
| 3. TMCS204(3) | System Security |
| 4. TMCS204(4) | Digital Forensic |

Elective – III (A)

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1. TMCS301(1)
2. TMCS301(2)
3. TMCS301(3)
4. TMCS301(4)

Data Mining & Warehousing
 Natural Language Processing
 Intelligent Systems
 Complexity Theory

Elective – III (B)

1. TMCS302(1)
2. TMCS302(2)
3. TMCS302(3)

Process Engineering
 Digital Forensic
 Complexity Theory

LIST OF ELECTIVES (BT)

1. TMTB-214
2. TMTB-215
3. TMTB-309
4. TMTB-310
5. TMTB-214-I
6. TMTB-215-I
7. TMTB-309-I
8. TMTB-310-I
9. TMTB-214-II
10. TMTB-215-II
11. TMTB-309-II
12. TMTB-310-II
13. TMTB-214-III
14. TMTB-215-III
15. TMTB-309-III
16. TMTB-310-III

Fundamentals of Biochemical Engineering
 Statistics for Biology
 Manufacturing Processes
 Secondary Metabolites in Plants & Microbes
 Metabolic Engineering
 Bioprocess Safety and Bioethics
 Biosensor
 Food Service Management
 Introduction to clinical nutrition
 Industrial stoichiometry
 Fermentation Chemistry
 Food additives and ingredients
 Beverage technology
 Food Thermodynamics
 Agriculture marketing
 Unit Operation in food processing

LIST OF ELECTIVES -AG (PFE)

Elective – I

1. TMAE203VI
2. TMAE203VII
3. TMAE203V
4. TMAE203IV

Seed Processing Engineering
 Storage Techniques of Processed Food
 Horticultural Crop Process Engineering
 Dairy Products Processing

Elective – II

1. TMAE303VI

Energy Management in Food Processing Industries

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2. TMAE303VII
3. TMAE303V
4. TMAE303IV

Transport Phenomena in Food Processing
Instrumentation and Sensors in Food Processing
Processing of Meat, Poultry and Fish

LIST OF ELECTIVES -AG (FMPE)

Elective – I

1. TMFM104(V)
2. TMFM104(VI)

Machinery for Horticulture and Protected Agriculture
Fatigue Design

Elective – II

1. TMFM203(V)
2. TMFM203(VI)
3. TMFM104(IV)
4. TMFM203(IV)
5. TMFM104(III)
6. TMFM203(III)

Vibrations
Numerical Methods for Engineers
Fundamentals of New Introduce Agricultural Farm Hand Tools
Principles of Automation and Control
Machinery for Precision Agriculture
Design of Farm Machinery-I

Elective – III

1. TMSWE303D
2. TMSWE303E
3. TMSWE303C
4. TMFM303(V)
5. TMFM303(VI)
6. TMFM303(IV)
7. TMFM303(III)

Sensing and Automation in Irrigation System
Minor Irrigation Techniques
Waste Water Management and Utilization
Mechatronics and Robotics in Agriculture
Artificial Intelligence
Principles of Hydraulic and Pneumatic System
Design of Farm Machinery-II

LIST OF ELECTIVES -AG (SWCE)

Elective – I

1. TMSWE104C

Dryland Water Management Technologies

Elective – II

1. TMSWE203C
2. TMSWE104D
3. TMSWE104E
4. TMSWE203D
5. TMSWE203E

Dimensional Analysis and Similitude
Watershade Management and Modeling
Irrigation Economics Planning and Management
Command Area Management
Water Resource System Engineering

LIST OF ELECTIVES -CS

Elective – I

1. MCS102(1)

Advanced Algorithms

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2. MCS102(2) Advanced Graph Theory
3. MCS102(3) Embedded Systems

Elective – II

1. MCS204(1) Cluster and Grid Computing
2. MCS204(2) Sensor networks
3. MCS204(3) System Security

Elective – III

1. MCS301(1) Data Mining & Warehousing
2. MCS301(2) Research methodology
3. MCS301(3) AI & neural network

Elective – IV

1. MCS302(1) Human resource management
2. MCS302(2) Digital Forensic
3. MCS302(3) Bio-informatics

10. Examinations/Assessments

10A. Internal/ Sessional Examination

- a. The minimum Grade required to pass in each Theory & Practical paper is 'GRADE D'.
- b. A candidate, in order to pass must satisfy the requirement of Minimum CGPA of 4.50 in a particular academic year inclusive of both semesters of that academic year subject to conditions of clause 10D.
- c. In case of audit/qualifying paper the minimum Grade required to pass is Grade D. However, the Grade obtained in audit paper shall not be included in SGPA.

10B. End-Semester Examination

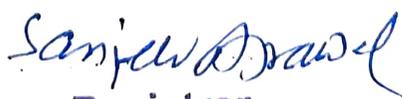
There will be two End Semester Examinations in all theory and project subjects viz. Odd (I, III) Semester Examination and Even (II, IV) Semester Examination in an academic year.

10C. Carry Forward of Marks

In case, if a student gets the back in a course/paper, the sessional marks of the subject concerned will be carried forward in the total of marks when he re-appears for the examination of the course in which he has got the back.

10D. Heads of Passing

- (a) The minimum passing marks in each theory subject (including Internal/ Sessional marks) will be 35%.
- (b) The minimum passing marks in each comprehensive viva/project will be 50 %.


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- (c) A student , in order to pass must satisfy the following:
Minimum 45% marks in aggregate of a particular academic year inclusive of both semesters of that academic year subject to the conditions of the clause 7B.

10E. Carry Over System

Maximum number of carry over papers (Theory/viva/project) permissible for promotion to next year will be 07.

10F. Promotion

- a) A candidate satisfying all the requirements under clause 10A shall be promoted to the next academic year of study.
- b) A candidate shall be eligible for provisional promotion with carryover (PCP status) to the next academic year of study provided he/she fails to satisfy the requirements of clause 10A(a) in not more than permissible carry over paper as mentioned in clause 10D.
- c) If a candidate satisfies the requirement of clause 10A(a) but fails to satisfy the requirement of 10A(b) he/she shall be eligible for provisional promotion with carryover (PCP-A {aggregate} status). He/she may choose up to a maximum of any 04 theory papers of that particular academic year as per his/her choice to pass the examination of that.

10G. Ex-studentship

A candidate opting for ex-studentship shall be required to appear in all the theory/practical/viva papers in the end semester examinations of both semesters/ annual examination of the same academic year However, the sessional marks of theory & practical both shall remain the same as those secured earlier.

11. Evaluation of Performance

- (a) **Programmes:** Evaluation of performance of the students in a programme shall be a continuous process based on their performance in the class test, quizzes, assignments and the end semester examinations.

Theory papers in semester system (Maximum Marks: 100)

The evaluation will be done through two class test and one end semester examination.

This will be in addition to quizzes, assignments, attendance, etc. Each class test will carry a weightage of 10 marks, and the end semester examination will carry a weightage of 70 marks. The remaining 10 marks will be awarded on the basis of attendance and performance in quizzes and assignments.

- (b) **Summer Training, Project Report, Seminar etc.**

Summer Training, Project Report, Seminar, and other learning oriented activities shall have associated maximum marks and credits, as stated in the syllabus.

Sanjeev Agrawal
Registrar
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[Signature]

<i>Evaluation Scheme</i>			
<i>Theory</i>	<i>Internal</i>	<i>External</i>	<i>Total</i>
<i>Comprehensive Viva-Voce</i>	30	70	100
<i>Summer Training Project Report Evaluation and Viva-Voce</i>	--	100	100
<i>Research Project Report Evaluation and Viva-Voce</i>	30	70	100

Question paper pattern for End-semester Examinations

Long Answers (Answer 5 out of 10) = $5 \times 14 = 70$
Total Marks = **70**

Question paper pattern for Internal/ Sessional Examinations

Long Answers (Answer 2 out of 3) = $2 \times 5 = 10$ (each mid-sem)
Total Marks = **20**

12. Award of Division

The division shall be awarded on the basis of final year result.

- If a student passes all examinations and secure minimum Final CGPA 4.50 to 5.99, he/she shall be eligible for the award of SECOND DIVISION.
- If a student passes all examinations and secure minimum Final CGPA 6.00 to 7.49, he/she shall be eligible for the award of FIRST DIVISION.
- If a student passes all examinations in first attempt without change of Grade and secures minimum Final CGPA 7.50 & above, he/she shall be eligible for the award of FIRST DIVISION WITH HONOURS.

13. Scrutiny and Re-evaluation

Scrutiny shall be allowed in only theory papers, in which Re-totaling of the marks awarded will be done and only unchecked answers (if any) will be evaluated.

Re-evaluation of theory/practical papers is not permitted.

14. Unfair Means

Cases of unfair means shall be dealt as per the rules of the University.

Sanjay D. D. D.

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 Moradabad.

July

14. Result

- (a) The result of a candidate shall be declared on the basis of the performance of both semesters of the same academic year.
- (b) Result of the final year shall be declared on the basis of working out Final CGPA which is the weighted average of CGPA of all years of the study.

16. Improvement

There shall be no provision of Improvement examination in all the courses running in the University.

17. Grade Card

- (a) A copy of the Grade Card shall be issued to each student at the end of each academic year. The duplicate copy, if required can be obtained on payment of prescribed fee.
- (b) The Grade Report Card of a student may be withheld if he/she has not paid his/her dues or if there is a case of indiscipline pending against him/her or for any other such reasons.

18. Re-Admission

A candidate may be allowed for re-admission provided he/she satisfies one of the following conditions:

- (a) A candidate is declared fail.
- (b) A candidate promoted with carry over papers and opts for re-admission.

Sanjeev Dadaal

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[Signature]