DEPARTMENT OF MECHANICAL ENGINEERING

Kurukshetra University, Kurukshetra (K.U.K) – 136119, Haryana, INDIA

(Established by the state Legislature Act XII of 1956; 'A+' Grade, NAAC Accredited)

A. Definition of Credit:

1 Hour Lecture (L) per week	1 credit
1Hour Tutorial (T) per week	1 credit
1 Hour Practical (P) per week	0.5 credit
2 Hours Practical (Lab) per week	1 credit

B. Range of Credits:

A total credit of 160 is required for a student to be eligible to get Under Graduate degree in **Mechanical Engineering**. A student will be eligible to get Under Graduate degree **(B.Tech.) with Honours**, if he/she completes an additional 20 credits. These could be acquired through MOOCs at Swayam portal or with in-house examination being conducted. In order to have an Honours degree, a student may choose minimum 20 credits provided that the student must ensure the course is approved by the Competent Authority, Government of India.

BACHELOR OF TECHNOLOGY (MECHANICAL ENGINEERING) CREDIT BASED
KURUKSHETRA UNIVERSITY KURUKSHETRA
SCHEME OF STUDIES/EXAMINATION
SEMESTER III(w.e.f. session 2019-2020)

S. No.	Course No.	Course Name	L:T:P	Hours/ Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1	BS-201A	Optics & Waves	3:0:0	3	3	75	25	0	100	3
2	BS-205A	Advanced Engineering Mathematics	3:0:0	3	3	75	25	0	100	3
3	ES-203A	Basic Electronics Engineering	3:0:0	3	3	75	25	0	100	3
4	MEC-201A	Theory of Machines	3:1:0	4	4	75	25	0	100	3
5	MEC-203A	Mechanics of Solids-I	3:1:0	4	4	75	25	0	100	3
6	MEC-205A	Thermodynamics	3:1:0	4	4	75	25	0	100	3
7	MEC-207LA	Theory of Machines Lab	0:0:2	2	1	0	40	60	100	3
8	MEC-209LA	Mechanics of Solids Lab	0:0:2	2	1	0	40	60	100	3
9	*MEC-211A	Industrial Training-I	2:0:0	2	-	-	100	-	100	
10	**MC-901A	Environmental Sciences	3:0:0	3	-	100	-	0	100	3
			Total	**30**	**23**	**450**	**230**	**120**	**800**	

*MEC-211Ais a mandatory non-credit course in which the students will be evaluated for the industrial training undergone after 2nd semester and students will be required to get passing marks to qualify.

**MC-901A is a mandatory credit-less course in which the students will be required to get passing marks in the major test.

BACHELOR OF TECHNOLOGY (MECHANICAL ENGINEERING) CREDIT BASED

KURUKSHETRA UNIVERSITY KURUKSHETRA

SCHEME OF STUDIES/EXAMINATION

SEMESTER IV(w.e.f. session 2019-2020)

S. No.	Course No.	Course Name	L:T:P	Hours/ Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1	ES-204A	Materials Engineering	3:0:0	3	3	75	25	0	100	3
2	MEC-202A	Applied Thermodynamics	3:0:0	3	3	75	25	0	100	3
3	MEC-204A	Fluid Mechanics & Fluid Machines	3:1:0	4	4	75	25	0	100	3
4	MEC-206A	Mechanics of Solids-II	3:1:0	4	4	75	25	0	100	3
5	MEC-208A	Instrumentation& Control	3:0:0	3	3	75	25	0	100	3
6	ES-206LA	Materials Engineering Lab	0:0:2	2	1	0	40	60	100	3
7	MEC-210LA	Fluid Mechanics & Fluid Machines Lab	0:0:2	2	1	0	40	60	100	3
8	*MC-902A	Constitution of India	3:0:0	3	-	100	-	-	100	3
			Total	**24**	**19**	**375**	**205**	**120**	**700**	

*MC-902A is a mandatory credit-less course in which the students will be required to get passing marks in the major test.

Note: All the students have to undergo 4 to 6 weeks Industrial Training after 4th semester which will be evaluated in 5th semester.

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KURUKSHETRA UNIVERSITY KURUKSHETRA

SCHEME OF STUDIES/EXAMINATION

SEMESTER V(w.e.f. session 2020-2021)

S. No.	Course No.	Course Name	L:T:P	Hours/ Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1	HTM-901A	Universal Human Values II : Understanding Harmony	3:0:0	3	3	75	25	0	100	3
2	MEC-301A	Heat Transfer	3:1:0	4	4	75	25	0	100	3
3	MEC-303A	Production Technology	3:0:0	3	3	75	25	0	100	3
4	MEC-305A	Mechanical Vibrations and Tribology	3:0:0	3	3	75	25	0	100	3
5	MEC-307LA	Heat Transfer lab	0:0:2	2	1	0	40	60	100	3
6	MEC-309LA	Production Technology Lab	0:0:2	2	1	0	40	60	100	3
7	MEC-311LA	Mechanical Vibrations and Tribology Lab	0:0:2	2	1	0	40	60	100	3
8	MEC-313LA	Project-I	0:0:2	2	1	-	0	100	100	3
9	*MEC-315A	Industrial Training-II	2:0:0	2	-	-	100	-	100	-
10	**MC-903A	Essence of Indian Traditional Knowledge	3:0:0	3	-	100	-	-	100	3
			Total	**26**	**17**	**300**	**220**	**280**	**800**	

*MEC-315A is a mandatory non-credit course in which the students will be evaluated for the industrial training undergone after 4th semester and students will be required to get passing marks to qualify.

**MC-903Ais a mandatory credit-less course in which the students will be required to get passing marks in the majortest.

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SCHEME OF STUDIES/EXAMINATION
SEMESTER VI(w.e.f. session 2020-2021)

S. No.	Course No.	Course Name	L:T:P	Hours/ Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1	HM-901A	Organizational Behaviour	3:0:0	3	3	75	25	0	100	3
2	MEC-302A	Manufacturing Technology	3:0:0	3	3	75	25	0	100	3
3	MEC-304A	Design of Machine Elements	2:4:0	6	6	75	25	0	100	4
4	MEC-306LA	Mechanical Engineering Lab-I	0:0:2	2	1	0	40	60	100	3
5	MEC-308LA	Mechanical Engineering Lab-II	0:0:2	2	1	0	40	60	100	3
6	MEC-310LA	Project-II	0:0:6	6	3	0	0	100	100	3
7	MEP*	Program Elective-I	3:1:0	4	4	75	25	0	100	3
8	MEP*	Program Elective -II	3:1:0	4	4	75	25	0	100	3
			Total	**30**	**25**	**375**	**205**	**220**	**800**	

Course No.	ProgramElective I
MEP-302A	Internal Combustion Engines
MEP-304A	Gas Dynamics and Jet Propulsion
MEP-306A	Design of Transmission Systems

Course No.	ProgramElective II
MEP-308A	Composite Materials
MEP-310A	Refrigeration and Air Conditioning
MEP-312A	Product Engineering

Note: All the students have to undergo 4 to 6 weeks Industrial Training after 6th semester which will be evaluated in 7th semester.

*** The course of Program Elective will be offered at 1/3rd strength or 20 students (whichever is smaller) of the section.**

BACHELOR OF TECHNOLOGY (MECHANICAL ENGINEERING) CREDIT BASED
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SCHEME OF STUDIES/EXAMINATION
SEMESTER VII(w.e.f. session 2021-2022)

S. No.	Course No.	Course Name	L:T:P	Hours/ Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1	MEO*	Open Elective-I	3:0:0	3	3	75	25	0	100	3
2	MEC-401A	Automation in Manufacturing	3:0:0	3	3	75	25	0	100	3
3	MEC-403LA	Mechanical Engineering Lab-III	0:0:2	2	1	0	40	60	100	3
4	MEC-405LA	Project-III	0:0:10	10	5	0	100	100	200	3
5	MEP*	Program Elective-III	3:0:0	3	3	75	25	0	100	3
6	MEP*	Program Elective -IV	3:0:0	3	3	75	25	0	100	3
7	**MEC-407A	Industrial Training-III	2:0:0	2	-	-	100	-	100	
			Total	**26**	**18**	**300**	**240**	**160**	**700**	

Program Elective-III			Program Elective-IV			Open Electives-I	
Course No.	Course Name		Course No.	Course Name		Course No.	Course Name
MEP-401A	Computer Aided Design		MEP-407A	Mechatronic Systems		MEO-401A	Smart Materials
MEP-403A	Finite Element Analysis		MEP-409A	Industrial Robotics		MEO-405A	Non-Destructive Testing
MEP-405A	Power Plant Engineering		MEP-411A	Solar Energy Analysis		MEO-407A	Manufacturing Cost Estimation
						MEO-409A	Ergonomics
						MEO-411A	Air and Noise Pollution

*** The course of both Program Elective and Open Elective will be offered at 1/3rd strength or 20 students (whichever is smaller) of the section.**
****MEC-407A**is a mandatory non-credit course in which the students will be evaluated for the industrial training undergone after 6th semester and students will be required to get passing marks to qualify.

BACHELOR OF TECHNOLOGY (MECHANICAL ENGINEERING) CREDIT BASED

KURUKSHETRA UNIVERSITY KURUKSHETRA

SCHEME OF STUDIES/EXAMINATION

SEMESTER VIII(w.e.f. session 2021-2022)

S. No.	Course No.	Course Name	L:T:P	Hours/ Week	Credits	Examination Schedule (Marks)				Duration of Exam (Hrs.)
						Major Test	Minor Test	Practical	Total	
1	MEC-402LA	Project-IV	0:0:10	10	5	-	100	100	200	3
2	MEO*	Open Elective-II	3:0:0	3	3	75	25	0	100	3
3	MEO*	Open Elective-III	3:0:0	3	3	75	25	0	100	3
4	MEP*	Program Elective-V	3:0:0	3	3	75	25	0	100	3
5	MEP*	Program Elective-VI	3:0:0	3	3	75	25	0	100	3
			Total	**22**	**17**	**300**	**200**	**100**	**600**	

Program Elective- V		Program Elective-VI	
Course No.	**Course Name**	**Course No.**	**Course Name**
MEP-402A	Non-Conventional Machining	MEP-408A	Welding Technology
MEP-404A	Automobile Engineering	MEP-410A	Design of Pressure Vessels and Piping
MEP-406A	Product Design and Manufacturing	MEP-412A	Quality and Reliability Engineering

Open Elective- II		Open Elective-III	
Course No.	**Course Name**	**Course No.**	**Course Name**
MEO-402A	Supply Chain Management	MEO-408A	Lubricants and Lubrication
MEO-404A	Competitive Manufacturing Systems	MEO-410A	Total Quality Management
MEO-406A	Concurrent Engineering	MEO-412A	Energy Conservation and Management

*** The course of both Program Elective and Open Elective will be offered at 1/3rd strength or 20 students (whichever is smaller) of the section.**