

MANAV RACHNA UNIVERSITY, FARIDABAD

DEPARTMENT OF MECHANICAL ENGINEERING

3 Weeks Induction Programme (Mandatory) (MEU01B)

SEMESTER - 1

NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS	OVERLAPPING COURSES/EQUIVALENT COURSES
BASIC SCIENCE COURSES	CHH144-T/P	CHEMISTRY	NIL	CHEM	HARD	CORE	3	1	2	0	6	5	
BASIC SCIENCE COURSES	MAH102B	MATHEMATICS-I	NIL	MATH	HARD	CORE	3	1	0	0	4	4	
ENGINEERING SCIENCE COURSES	MEH101B	ENGINEERING MECHANICS	NIL	ME	HARD	CORE	3	1	0	0	4	4	
ENGINEERING SCIENCE COURSE	ECH103B-T/P	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING	NIL	ECE	HARD	CORE	3	1	2	0	6	5	
ENGINEERING SCIENCE COURSE	MEW106B	COMPUTER AIDED DRAFTING	NIL	ME	WORKSHOP	CORE	0	0	2	0	2	1	
PROFESSIONAL CORE COURSES	MEH105B	THERMODYNAMICS	NIL	ME	HARD	CORE	3	1	0	0	4	4	
MANDATORY COURSES	LWS324B	CONSTITUTION OF INDIA	NIL	LW	SOFT	AUDIT	2	0	0	0	2	0	
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							17	5	6	0	28	23	23

SEMESTER - 2													
NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS	
BASIC SCIENCE COURSES	MAH105B-T/P	MATHEMATICS-II (ORDINARY & PARTIAL DIFFERENTIAL EQUATION, NUMERICAL METHODS)	MATH-I	MATH	HARD	CORE	3	1	2	0	6	5	
BASIC SCIENCE COURSES	PHH110B-T/P	OPTICS & WAVE OSCILLATIONS	NIL	PHY	HARD	CORE	3	1	2	0	6	5	
ENGINEERING SCIENCE COURSES	CSH101B-T/P	PROGRAMING FOR PROBLEM SOLVING USING C	NIL	CS	HARD	CORE	3	1	2	0	6	5	
ENGINEERING SCIENCE COURSES	MEH103B-T/P	MANUFACTURING PROCESSES	NIL	ME	HARD	CORE	3	0	2	0	5	4	
AUDIT COURSE	CHH137	ENVIRONMENTAL SCIENCE	NIL	CH	NTCC	UNIVERSITY COMPULSORY	2	0	0	0	2	0	
HSMC	HLS104B/HLS103B-T/P	PROFESSIONAL ENGLISH-BASICS/PROFESSIONAL ENGLISH-ADVANCE	NIL	HUM	HARD	CORE	2	0	2	0	4	3	
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							16	3	10	0	29	22	22
Post 2nd Sem Summer Training (Mandatory) (Engineering Exploration- 2 CREDITS (60 Hrs)												2	

SEMESTER - 3												
NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
PROFESSIONAL CORE COURSES	MEH207B	FLUID MECHANICS & MACHINES	NIL	ME	HARD	CORE	3	1	2	0	6	5
BASIC SCIENCE COURSES	MAH203B	MATHEMATICS-III (PROBABILITY & STATISTICS)	NIL	MATH	HARD	CORE	3	1	0	0	4	4
MOOC COURSES-I (*Student will opt one course through MOOC)												3
PROFESSIONAL CORE COURSES	MEH204B	APPLIED THERMODYNAMICS	NIL	ME	HARD	CORE	3	1	2	0	6	5
PROFESSIONAL CORE COURSES	MEH301B-T/P	MANUFACTURING TECHNOLOGY	NIL	ME	HARD	CORE	3	0	2	0	5	4
UNIVERSITY COMPULSORY	FLS101/FLS102/FLS103	FOREIGN LANGUAGE-I	NIL	FL	AUDIT	ELECTIVE	2	0	0	0	2	0
UNIVERSITY COMPULSORY COURSES	CDO201	PROFESSIONAL COMPETENCY ENHANCEMENT			Outcome Based		0	0	1	0	1	0.5
UNIVERSITY COMPULSORY COURSES	RDO201	INTRODUCTION TO RESEARCH	NIL	ME	PROJECT BASE/INNOVATION		0	0	1	0	1	0.5
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							14	3	8	0	24	22

SEMESTER - 4													
NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS	
PROFESSIONAL CORE COURSES	MEH205B-T/P	STRENGTH OF MATERIALS-I	NIL	ME	HARD	CORE	3	1	2	0	6	5	
PROFESSIONAL CORE COURSES	MEH305B-T/P	ROBOTICS	NIL	ME	HARD	CORE	3	1	2	0	6	5	
MOOC COURSES-I (*Student will opt one course through MOOC)												3	
PROFESSIONAL CORE COURSES	MEH206B	THEORY OF MACHINES	NIL	ME	HARD	CORE	3	1	2	0	6	5	
PROFESSIONAL CORE COURSES	MEH202B-T/P	MATERIALS SCIENCE	NIL	ME	HARD	CORE	3	0	2	0	5	4	
PROFESSIONAL CORE COURSES	CSH321B-T/P	ARTIFICIAL INTELLIGENCE & MACHINE LEARNING	NIL	CSE	HARD	CORE	2	0	2	0	4	3	
HSMC	LWS322B LWS321B	CYBER LAW/ LAW OF PATENTS	NIL	LW	HARD	CORE	2	0	0	0	2	2	
UNIVERSITY COMPULSORY	FLS105/FLS106/FLS107	FOREIGN LANGUAGE	NIL	FL	AUDIT	ELECTIVE	2	0	0	0	2	0	
UNIVERSITY COMPULSORY	CDO202	PROFESSIONAL COMPETENCY ENHANCEMENT			Outcome Based		0	0	0	1	1	0.5	
UNIVERSITY COMPULSORY	RD0202	INTRODUCTION TO RESEARCH	NIL	ME	PROJECT BASE/INNOV		0	0	1	0	1	0.5	
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							18	3	10	1	33	29	29
Post 4th Sem Summer Training (Mandatory) - (60 Hrs)													2

SEMESTER - 5													
NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS	
PROFESSIONAL CORE COURSES	MEH318B-T/P	COMPUTER AIDED DESIGN & MANUFACTURING	NIL	ME	HARD	CORE	3	0	2	0	5	4	
PROFESSIONAL CORE COURSES	MEH302B	MACHINE DESIGN-I	NIL	ME	HARD	CORE	3	1	0	0	4	4	
PROFESSIONAL CORE COURSES	CSH210B-T/P	DATA STRUCTURES	NIL	CS	HARD	CORE	2	0	2	0	4	3	
PROFESSIONAL CORE COURSES		INTERNET OF THINGS	NIL	ECE	HARD	CORE	2	0	2	0	4	3	
PROFESSIONAL CORE COURSES	MEH319B-T/P	MECHATRONICS	NIL	ME	HARD	CORE	3	0	2	0	5	4	
PROFESSIONAL CORE COURSES	MEH303B-T/P	HEAT TRANSFER	NIL	ME	HARD	CORE	3	1	2	0	6	5	
OPEN ELECTIVE COURSES	CHS234/CSS325/ECS306	ENVIRONMENTAL ETHICS & SUSTAINABLE DEVELOPMENT/GREEN COMPUTING/E-WASTE MANAGEMENT	NIL	ME	SOFT	CORE	1	0	2	0	3	2	
UNIVERSITY COMPULSORY	MES325B	ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE	NIL	EDU	AUDIT	UNIVERSITY COMPULSORY	1	0	2		3	0	
UNIVERSITY COMPULSORY	CDO301	PROFESSIONAL COMPETENCY ENHANCEMENT		CDC	Outcome Based		0	0	1	0	1	0.5	
UNIVERSITY COMPULSORY	RDO301	INTRODUCTION TO RESEARCH	NIL	ME	PROJECT BASE/INNOV		0	0	1	0	1	0.5	
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							18	2	15	0	36	26	26

SEMESTER - 6												
NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS
PROFESSIONAL CORE COURSES	MEH320B-T/P	INTERNAL COMBUSTION ENGINE & GAS TURBINES	NIL	ME	HARD	CORE	3	1	2	0	6	5
HSMC	MEH310B-T/P	OPERATION RESEARCH	NIL	MGMT	HARD	CORE	3	1	0	0	4	4
PROFESSIONAL CORE COURSES	MEH311B-T/P	REFRIGERATION & AIR CONDITIONING	NIL	ME	HARD	CORE	3	1	2	0	6	5
PROFESSIONAL ELECTIVE COURSES	MEH307/MEH308B/MEH321B/-T/P	TOOL ENGINEERING DESIGN/PRODUCT DESIGN DEVELOPMENT//FUNDAMENTALS OF NANOSCIENCE & NANOTECHNOLOGY	NIL	ME	HARD	CORE	3	0	2	0	5	4
PROFESSIONAL ELECTIVE COURSES	MEH312/MEH313B/MEH314B/-T/P	MECHANICAL VIBRATIONS/AUTOMOBILE ENGINEERING/COMPOSITE MATERIALS	NIL	ME	HARD	CORE	3	0	2	0	5	4
OPEN ELECTIVE COURSES	ECH403B/CSH414B-T/P	WIRELESS SENSOR NETWORK/INFORMATION RETREIVAL	NIL	OPEN	HARD	ELECTIVE	3	0	2	0	5	4
UNIVERSITY COMPULSORY	CDO302	PROFESSIONAL COMPETENCY ENHANCEMENT			Outcome Based		0	0	1	0	1	0.5
UNIVERSITY COMPULSORY	RDO302	INTRODUCTION TO RESEARCH	NIL	ME	PROJECT BASE/INNOV		0	0	1	0	1	0.5
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							18	3	14	0	33	27
MEO317B												
Post 6th Sem Summer Training (Mandatory) - (80 to 90 Hrs)												3

SEMESTER - 7													
NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS	
PROFESSIONAL ELECTIVE COURSES	MEH401/MEH402/MEH403/MEH306B-T/P	RENEWABLE ENERGY SOURCES/MACHINE DESIGN-II/POWER PLANT ENGINEERING/STRENGTH OF MATERIALS-II	NIL	ME	HARD	ELECTIVE	3	1	0	0	4	4	
HSMC	EDS288/EDS289/EDS290	HUMANITIES-I (APPLIED PHILOSOPHY/ APPLIED PSHYCHOLOGY/ APPLIED SOCIOLOGY)	NIL	EDU	SOFT	ELECTIVE	1	0	2	0	3	2	
PROFESSIONAL ELECTIVE COURSES	MEH405/MEH406/MEH409/MEH408B-T/P	COMPUTATIONAL FLUID DYNAMICS/OPTIMIZATION TECHNIQUES/HEATING VENTILATION & AIR CONDITIONING/ENERGY CONSERVATION & MANAGEMENT	NIL	ME	HARD	ELECTIVE	3	1	2	0	6	5	
OPEN ELECTIVE COURSES	ECW310/CSW318B	ELECTRONIC DESIGN WORKSHOP/AGILE TECHNOLOGIES	NIL	OPEN	HARD	ELECTIVE	0	0	2	0	2	1	
OPEN ELECTIVE COURSES	ECW310/CSW318B	SENSORS & IOT/R PROGRAMMING	NIL	OPEN	HARD	WORKSHOP	0	0	2	0	2	1	
HSMC	MCH321B	FINANCIAL & HUMAN RESOURCE MANAGEMENT	NIL	MGMT	SOFT	ELECTIVE	1	0	2	0	2	1	
HSMC	MCS368B	ENTREPRENERSHIP	NIL	MGMT	SOFT	CORE	2	0	0	0	2	2	
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							10	2	10	0	21	16	16

SEMESTER - 8

NOMENCLATURE AS PER AICTE	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE	**OFFERING DEPARTMENT	*COURSE NATURE (Hard/Soft/Workshop/NTCC)	COURSE TYPE (Core/Elective / University Compulsory)	L	T	P	O	NO. OF CONTACT HOURS PER WEEK	NO. OF CREDITS	
PROFESSIONAL CORE COURSES	MEN413B	PROJECT/INDUSTRIAL TRAINING	NIL	ME	NTCC	CORE	0	0	16	0	16	8	
TOTAL (L-T-P-O/CONTACT HOURS/CREDITS)							0	0	16	0	16	8	8
180													

*MANDATORY FIELDS

