# ANNA UNIVERSITY, CHENNAI AFFILIATED INSTITUTIONS

#### **REGULATIONS 2017**

## M.E. INDUSTRIAL SAFETY ENGINEERING I TO IV SEMESTERS (FULL TIME) CURRICULUM AND SYLLABUS

#### SEMESTER I

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	Т	Р	С
THE	ORY							
1.	MA5164	Probability and Statistical Methods	FC	4	4	0	0	4
2.	IS5101	Principles of Safety Management	PC	3	3	0	0	3
3.	IS5102	Environmental Safety	PC	4	4	0	0	4
4.	IS5103	Occupational Health and Industrial Hygiene	PC	3	3	0	0	3
5.	IS5104	Industrial Safety, Health and Environment Acts	PC	4	4	0	0	4
6.		Professional Elective I	PE	3	3	0	0	3
PRA	PRACTICAL							
7.	IS5111	Technical Seminar - I	EEC	2	0	0	2	1
			TOTAL	23	21	0	2	22

#### **SEMESTER II**

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	Т	Р	С
THE	ORY							
1.	IS5201	Fire Engineering and Explosion Control	PC	3	3	0	0	3
2.	IS5202	Computer Aided Hazard Analysis	PC	4	4	0	0	4
3.	IS5203	Electrical Safety	PC	3	3	0	0	3
4.	IS5204	Safety in Chemical Industries	PC	3	3	0	0	3
5.		Professional Elective II	PE	3	3	0	0	3
6.		Professional Elective III	PE	3	3	0	0	3
PRA	CTICAL							
7.	IS5211	Industrial Safety Laboratory	PC	4	0	0	4	2
8.	IS5212	Technical Seminar - II	EEC	2	0	0	2	1
			TOTAL	25	19	0	6	22

### SEMESTER III

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	Т	Р	С
THE	ORY				•			
1.	IS5301	Reliability Engineering	PC	3	3	0	0	3
2.		Professional Elective IV	PE	3	3	0	0	3
3.		Professional Elective V	PE	3	3	0	0	3
PRA	CTICAL							
4.	IS5312	Project Work Phase I	EEC	12	0	0	12	6
5.	IS5311	Industrial Safety Assessment – Internship	EEC	4	0	0	4	2
		•	TOTAL	25	9	0	16	17

#### **SEMESTER IV**

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	С
PRA	CTICAL							
1.	IS5411	Project Work Phase II	EEC	24	0	0	24	12
			TOTAL	24	0	0	24	12

TOTAL CREDITS TO BE EARNED FOR THE AWARD OF THE DEGREE = 73

## **FOUNDATION COURSES (FC)**

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	Р	С
1.	MA5164	Probability and Statistical Methods	FC	4	4	0	0	4

## PROFESSIONAL CORE (PC)

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	Р	С
1.	IS5101	Principles of Safety Management	PC	3	3	0	0	3
2.	IS5102	Environmental Safety	PC	4	4	0	0	4
3.	IS5103	Occupational Health and Industrial Hygiene	PC	3	3	0	0	3
4.	IS5104	Industrial Safety, Health and Environment Acts	PC	4	4	0	0	4
5.	IS5201	Fire Engineering and Explosion Control	PC	3	3	0	0	3
6.	IS5202	Computer Aided Hazard Analysis	PC	4	4	0	0	4
7.	IS5203	Electrical Safety	PC	3	3	0	0	3
8.	IS5204	Safety in Chemical Industries	PC	3	3	0	0	3
9.	IS5211	Industrial Safety Laboratory	PC	4	0	0	4	2
10.	IS5301	Reliability Engineering	PC	3	3	0	0	3

#### LIST OF ELECTIVES FOR M.E. INDUSTRIAL SAFETY ENGINEERING

#### **SEMESTER I (Elective I)**

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	Т	Р	С
1.	IS5001	Plant Layout and Materials Handling	PE	3	3	0	0	3
2.	IS5002	Work Study and Ergonomics	PE	3	3	0	0	3
3.	IS5003	Dock Safety	PE	3	3	0	0	3
4.	IL5071	Human Factors in Engineering	PE	3	3	0	0	3
5.	IS5091	Maintainability Engineering	PE	3	3	0	0	3

## SEMESTER II (Elective II & III)

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	Т	Р	С
1.	IS5004	Transport Safety	PE	3	თ	0	0	3
2.	IS5005	Fireworks Safety	PE	3	თ	0	0	3
3.	IS5006	Safety in Construction	PE	3	თ	0	0	3
4.	IS5007	Nuclear Engineering and Safety	PE	3	3	0	0	3
5.	IS5008	Safety in Textile Industry	PE	3	3	0	0	3
6.	IS5009	Safety in Mines	PE	3	3	0	0	3

## SEMESTER III (Elective IV & V)

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	Т	Р	С
1.	IS5010	Safety in Engineering Industry	PE	3	3	0	0	3
2.	IS5011	Quality Engineering in Production Systems	PE	3	3	0	0	3
3.	IS5012	Disaster Management	PE	3	3	0	0	3
4.	IS5013	OHSAS 18000 and ISO 14000	PE	3	3	0	0	3
5.	IS5014	Artificial Intelligence and Expert Systems	PE	3	3	0	0	3
6.	MF5072	Research Methodology	PE	3	3	0	0	3
7.	IL5091	Data Analytics	PE	3	3	0	0	3

## **EMPLOYABILITY ENHANCEMENT COURSES (EEC)**

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	Т	Р	С
1.	IS5111	Technical Seminar - I	EEC	2	0	0	2	1
2.	IS5212	Technical Seminar - II	EEC	2	0	0	2	1
3.	IS5312	Project Work Phase I	EEC	12	0	0	12	6
4.	IS5311	Industrial Safety Assessment – Internship	EEC	4	0	0	4	2
5.	IS5411	Project Work Phase II	EEC	24	0	0	24	12