**Syllabus (Effective from Academic Year June, 2017),**

**Institute of Science & Technology for Advanced Studies & Research (ISTAR)**

**Sardar Patel University, Vallabh Vidyanagar – 388 120, Gujarat**

# M. Sc. (Industrial Hygiene and Safety ) Choice Based Credit System (CBCS)

SEMESTER – I **CORE COURSES AND FOUNDATION COURSE**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sr No. | Paper Code | Title of Paper | L | P | Total Credits | Total Marks | External Marks | Internal Marks |
| 1 | PS01CIHS21 | Introduction to Industrial Hygiene, Occupational Health & Environmental Toxicology | 4 |  | 4 | 100 | 70 | 30 |
| 2 | PS01CIHS22 | Safety Management | 4 |  | 4 | 100 | 70 | 30 |
| 3 | PS01CIHS23 | Air Sampling Analysis | 4 |  | 4 | 100 | 70 | 30 |
| 4 | PS01CIHS24 | Safety Engineering-I | 4 |  | 4 | 100 | 70 | 30 |
| 5 | PS01CIHS25 | Practical, Seminar ,viva Based on PS01CIHS21 and PS01CIHS23 | - | 8 | 4 | 100 | 70 | 30 |
| 6 | PS01CIHS26 | Comprehensive Viva-Voce | 1 | | 1 | 50 | 50 | - |
| 7 | PS01FIHS21 | Introduction to Human Physiology,  Biostatistics and Epidemiology | 4 |  | 4 | 100 | 70 | 30 |

## SEMESTER – II

**CORE COURSES**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sr No. | Paper Code | Title of Paper | | L | P | Total Credits | Total Marks | External Marks | Internal Marks |
| 1 | PS02CIHS21 | Industrial Ventilation | | 4 |  | 4 | 100 | 70 | 30 |
| 2 | PS02CIHS22 | Hazard Identification, Assessment and Control Techniques | | 4 |  | 4 | 100 | 70 | 30 |
| 3 | PS02CIHS23 | Physical Aspects of the Environment | | 4 |  | 4 | 100 | 70 | 30 |
| 4 | PS02CIHS24 | Safety in Chemical Industry | | 4 |  | 4 | 100 | 70 | 30 |
| 5 | PS02CIHS25 | Practical, Seminar and VIVA Based onPS02CIHS21 and PS02CIHS23 | | - | 8 | 4 | 100 | 70 | 30 |
| 6 | PS02CIHS26 | Comprehensive Viva-Voce | | 1 | | 1 | 50 | 50 | - |
| **Elective Courses** | | | | | | | | | |
| 6 | PS02EIHS21 | Industrial Visits and Seminars | 4 | | - | 4 | 100 | 70 | 30 |
| 7 | PS02EIHS22 | Accident Case Studies | 4 | | - | 4 | 100 | 70 | 30 |

**SEMESTER – III**

**CORE COURSES**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sr No. | Paper Code | Title of Paper | L | P | Total Credits | | Total Marks | External Marks | Internal Marks |
| 1 | PS03CIHS21 | Medical Surveillance and Biological Monitoring | 4 |  | 4 | | 100 | 70 | 30 |
| 2 | PS03CIHS22 | Hazardous Waste Management | 4 |  | 4 | | 100 | 70 | 30 |
| 3 | PS03CIHS23 | Principles of Ergonomics | 4 |  | 4 | | 100 | 70 | 30 |
| 4 | PS03CIHS24 | Safety Engineering- II | 4 |  | 4 | | 100 | 70 | 30 |
| 5 | PS03CIHS25 | Legislation on Safety & Health | 4 |  | 4 | | 100 | 70 | 30 |
| 6 | PS03CIHS26 | Comprehensive Viva-Voce | 1 | | 1 | | 50 | 50 | - |
| **Elective Courses** | | | | | | | | | |
| 1 | PS03EIHS21 | Advanced Safety Management and Engineering Techniques | 4 | - | 4 | 100 | | 70 | 30 |
| 2 | PS03EIHS22 | Safety in Construction Industry | 4 | - | 4 | 100 | | 70 | 30 |

## SEMESTER – IV

**CORE COURSES**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sr No. | Paper Code | Title of Paper | L | P | Total Credits | Total Marks | External Marks | Internal Marks |
| 1 | PS04CIHS21 | OHSAS Standard AND ISO14001:2015 | 4 | - | 4 | 100 | 70 | 30 |
| 2 | PS04CIHS22 | Project Work / Dissertation\* | - | - | 20 | 500 | 500 | - |
| 3 | PS04CIHS23 | Comprehensive Viva-Voce | 1 | | 1 | 50 | 50 | - |

\* Each student has to work in industry or complete the assigned project work on hygiene/safety or both in research institute/small scale industries/ institutions/MNCs / consultancies etc .Minimum duration of the Project Work/Dissertation work will be 12 weeks. The student will be guided from the department and also from the concerned authority under whom he is working.

**Scope:** The scope of the course is very wide. The students passing with the M. Sc. degree in Industrial Hygiene are expected to have opportunity at:

1. Safety Officers in Industries
2. Industries as Hygienists
3. Chemical, Pharmaceutical, Petroleum Industries
4. Safety and Environmental consultants
5. Safety Executives in Major Accident Hazard Installations

**Duration:** Two years Master Degree Course in Science with Four Semesters (CBCS).

**Eligibility: BE or B Sc**

**Number of Seats:** 15(Fifteen)