

ISE → syllabus

Module 1 - Introduction to industrial safety.

Terminologies used: accident, safety, hazard, safety devices, safety guards, necessity, precautions, caution, appliance, slip, trip, fall, ladders & scaffolding, unsafe acts, reason for accidents, material safety data sheet (MSDS), OSHA, WHO. Lockout & tagout procedures.

Safe material handling & storage.

Module 2 - Fire safety.

Introduction, class A, B, C, D & E fire.

Fire triangle. Fire extinguishers, fire hazards, analysis, prevention of fire, fire protection & fire prevention, steps after occurrence of fire, portable fire extinguisher, fire detection, fire alarm & firefighting system, safety sign boards, instruction on portable fire extinguishers.

Module 3 - Mechanical safety:

personal protecting equipment (PPE), safety guards, safety while working with machines, tools like lathe, drill press, power & band saw, grinding machine. Safety during welding, forging & pressing. Safety while handling material, compressed gas cylinders, corrosive substance & portable mechanical tools.

Module 4 - Electrical safety:

introduction to electrical safety, electric hazards, prevention of electrical accidents, PPE used. AC & DC current shocks, safety precaution against shocks, electrical portable electrical tools, domestic & industrial electrical safety procedures. field visits

Module 5 - Chemical safety & other safety checks:

introduction to chemical safety, labelling of chemicals, acid hoods, handling of acids, eye washers & showers, hazardous waste disposal, check list for LPG installation, safety precaution, using CNG fire prevention & safety audit, field visit.

CSE – 5th SEM
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ISE-2 Syllabus

CHATGPT ANALYSIS OF MY HANDWRITTEN SYLLABUS :

Module 1 – Introduction to Industrial Safety

- Terminologies used: accident, safety, hazard, safety device, safety guard, security, precautions, caution appliances
 - Safety signs, fall ladders & scaffolding, work acts
 - Reason for accidents
 - Material Safety Data Sheet (MSDS), OSHA, WHO
 - Lockout & tagout procedures
 - Safe material handling & storage
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Module 2 – Fire Safety

- Introduction: Class A, B, C, D, E fires
- Fire triangle
- Fire extinguishers, fire hazards, analysis
- Prevention of fire, fire protection
- Fire prevention after occurrence of fire
- Portable fire extinguishers, fire detection, fire alarm & fire-fighting systems
- Safety signboards, instructions on portable fire extinguishers

Module 3 – Mechanical Safety

- Personal Protective Equipment (PPE)
- Safety guards, safety while working with machines
- Tools like lathe, drill press, power hand saw, grinding machine
- Safety during welding, forging & pressing
- Safety while handling material, compressed gas cylinders, corrosive substances & portable mechanical tools

Module 4 – Electrical Safety

- Introduction to electrical safety, electrical hazards
 - Prevention of electrical accidents
 - PPE used: AC & DC current shocks
 - Safety precautions against shock
 - Electrical portable devices, electrical tools
 - Domestic & industrial electrical safety procedures
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Module 5 – Chemical Safety & Other Safety Checks

- Introduction to chemical safety
- Labelling of chemicals, acid foods
- Handling of acids, eye washers & showers
- Hazardous waste disposal, checklist
- Gas & LPG installations
- Safety precautions during CNG
- Fire prevention & safety audit
- Field visits

ORIGINAL SYLLABUS :

Module I : Introduction to Industrial Safety

Terms used: accident, safety, hazard, safety devices, safety guard, security, precaution, caution. appliance, slip, trip, fall. Ladders and scaffolding. Unsafe acts, reason for accidents, material safety data sheet (MSDS), OSHA, WHO. Lockout and tag out procedures. Safe material handling and storage.

Module II : Fire Safety

Fire Safety: Introduction, Class A, B, C, D and E fire. Fire triangle. Fire extinguishers, Fire hazard and analysis, prevention of fire. Fire protection and loss prevention, steps after occurrence of fire. Portable fire extinguishers. Fire detection, fire alarm and firefighting systems. Safety sign boards, instruction on portable fire extinguishers.

Module III : Mechanical Safety

Mechanical Safety: personal protecting equipment (PPE), safety guards, Safety while working with machine tools like lathe, drill press, power and band saws, grinding machines. Safety during welding, forging and pressing. Safety while handling Material, compressed gas cylinders, corrosive substance and portable mechanical tools.

Module IV : Electrical Safety

Electrical Safety: Introduction to electrical safety, Electric hazards, prevention of electrical accidents, PPE used. AC and DC current shocks, Safety precautions against shocks, electrical portable electrical tools, domestic and industrial electrical safety procedures. Field visits.

Module V : Chemical Safety and Other Safety Checks:

Chemical Safety and Other Safety Checks: Introduction to Chemical safety, Labeling of chemicals, acid hoods. Handling of acids, eye washers and showers, hazardous waste disposal, check list for LPG installations, safety precautions using CNG, fire prevention and safety audit. Field visits.

DIFFERENCES :

Module I: Introduction to Industrial Safety

Missed/Altered Points:

- "Slip, trip, fall" was not explicitly included.
- "Unsafe acts" was written as "work acts" (misinterpreted).
- "Caution. appliance" was rendered as "caution appliances" – meaning retained, but structure altered.

Module II: Fire Safety

Missed/Altered Points:

- "Fire hazard and analysis" was simplified to just "fire hazards, analysis".
- "Loss prevention" after fire was not mentioned.
- "Fire protection and loss prevention" became "fire protection", but "loss prevention" was omitted.
- "Firefighting systems" was written as "firefighting systems" (correct).

- "Fire safety" at the start of the module was correctly paraphrased as "Introduction".

Module III: Mechanical Safety

Missed/Altered Points:

- "Machine tools like lathe, drill press, power and band saws" was partly noted as "lathe, drill press, power hand saw" – "band saws" was misread as "hand saw".
- "Compressed gas cylinders" was written as "compressed gas cylinders" – correct.
- Nothing major was omitted, only slight misreadings of tool names.

Module IV: Electrical Safety

Missed/Altered Points:

- "Electric hazards" was written as "electrical hazards" – minor wording difference.
- "Field visits" was not included in the AI-generated version (missed point).
- "AC and DC current shocks" was combined to "AC & DC current shocks" – same meaning.
- "Electrical portable electrical tools" was written redundantly – probably due to handwritten duplication. The original correctly says just "electrical portable tools".

Module V: Chemical Safety & Other Safety Checks

Missed/Altered Points:

- "Chemical safety and other safety checks" header was split into "chemical safety & other safety checks" – acceptable rephrasing.
- "Labeling of chemicals" was written as "labelling of chemical" – minor error in plural/singular.
- "Acid hoods" was misread as "acid foods" – this is a major misinterpretation.

- "Checklist for LPG installations" was shortened to just "check list, gas LPG installations" – slightly fragmented.
- "Safety precautions using CNG" became "safety precautions during CNG" – meaning preserved.
- "Field visits" was included correctly at the end.

ISE ACTIVITY 01

CSE – 5th SEM Samuel Priyatam Dash Regd. No: 2302040025 ISE-2 Syllabus

July 2025

1 CHATGPT ANALYSIS OF MY HANDWRITTEN SYLLABUS :

1.0.1 Module 1 – Introduction to Industrial Safety

- Terminologies used: accident, safety, hazard, safety device, safety guard, security, precautions, caution appliances
- Safety signs, fall ladders & scaffolding, work acts
- Reason for accidents
- Material Safety Data Sheet (MSDS), OSHA, WHO
- Lockout & tagout procedures
- Safe material handling & storage

1.0.2 Module 2 – Fire Safety

- Introduction: Class A, B, C, D, E fires
- Fire triangle
- Fire extinguishers, fire hazards, analysis
- Prevention of fire, fire protection
- Fire prevention after occurrence of fire
- Portable fire extinguishers, fire detection, fire alarm & fire-fighting systems
- Safety signboards, instructions on portable fire extinguishers

1.0.3 Module 3 – Mechanical Safety

- Personal Protective Equipment (PPE)
- Safety guards, safety while working with machines
- Tools like lathe, drill press, power hand saw, grinding machine
- Safety during welding, forging & pressing
- Safety while handling material, compressed gas cylinders, corrosive substances & portable mechanical tools

1.0.4 Module 4 – Electrical Safety

- Introduction to electrical safety, electrical hazards
- Prevention of electrical accidents
- PPE used: AC & DC current shocks
- Safety precautions against shock
- Electrical portable devices, electrical tools
- Domestic & industrial electrical safety procedures

1.0.5 Module 5 – Chemical Safety & Other Safety Checks

- Introduction to chemical safety
- Labelling of chemicals, acid foods
- Handling of acids, eye washers & showers
- Hazardous waste disposal, checklist
- Gas & LPG installations
- Safety precautions during CNG
- Fire prevention & safety audit

Field visits