

Schemes and Syllabus

(For academic session 2025-26 onwards)

M. Voc. in Health Safety Environment



AtalShiksha Nagar (Kalujhanda), P.O.
Mandhala, Village- Nanakpura,
Pinjore-Nalagarh highway, District- Solan,
Himachal Pradesh- 174103

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SECTION 1

Program Outcomes and Program Specific Outcomes

Program Outcomes

Program Outcomes of Health Safety and Environment (HEV)

1. Knowledge of Health Safety and Environment Principles

Demonstrate a thorough understanding of health safety and environmental principles, legislation, regulations, and standards.

2. Risk Assessment and Management

Identify, assess, and manage risks in the workplace using recognized tools and methodologies.

3. Accident and Incident Investigation

Investigate accidents and near misses, determine root causes, and recommend effective corrective actions.

4. Emergency Preparedness and Response

Develop and implement emergency response plans for various workplace hazards and scenarios.

5. Occupational Health Awareness

understands the impact of work on health and apply strategies for occupational health monitoring and promotion.

6. Environmental Protection

Apply sustainable practices and environmental management techniques to reduce environmental impact.

7. Safety Program Development

Design, implements, and evaluates comprehensive health and safety programs and policies.

8. Communication and Training

Effectively communicate HEV information and provide training to stakeholders at all organizational levels.

9. Legal and Ethical Responsibility

Demonstrate understanding and application of legal and ethical responsibilities in HEV management.

10. Use of Technology

Utilize HEV software and technology for data collection, analysis, and reporting.

11. Continuous Improvement

Promote a culture of continuous improvement in HEV performance through audits, feedback, and proactive strategies.

12. Leadership and Teamwork

Exhibit leadership and work effectively in teams to solve HEV challenges and drive organizational safety culture.

Program Specific Outcomes

PSO 1: Apply HEV Regulations and Standards

Interpret and apply national and international occupational health, safety, and environmental regulations (such as OSHA, NEBOSH, ISO 45001, ISO 14001) to ensure legal compliance and ethical practices in the workplace.

PSO 2: Conduct Hazard Identification and Risk Assessment (HIRA)

Proficiently perform hazard identification, risk assessments, and determine appropriate control measures using standard frameworks like HIRA, JSA, and HAZOP.

PSO 3: Design and Implement Health Safety and Environment Management Systems

Design, implement, and manage workplace health safety and environment management systems tailored to various industries (e.g., construction, oil & gas, manufacturing) to ensure safe and sustainable operations.

PSO 4: Develop Emergency and Disaster Management Plans

Formulate emergency response and disaster preparedness plans, conduct drills, and coordinate with relevant authorities during crises.

PSO 5: Environmental Impact and Waste Management

Analyze environmental impacts of industrial activities and develop strategies for pollution control, waste minimization, and sustainability.

PSO 6: Promote Health and Safety Culture

Implement behaviour-based safety programs, awareness campaigns, and training to foster a proactive safety culture within organizations.

PSO 7: Accident Investigation and Root Cause Analysis

Investigate workplace incidents, conduct root cause analysis, and propose corrective and preventive actions to prevent recurrence.

PSO 8: Use of Health Safety and Environment Tools and Technologies

Employ modern tools and digital technologies such as safety audit software, environmental monitoring equipment, and incident reporting systems for effective HEV management.

SECTION 2

Semester wise Scheme

First Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
M. Voc. HEV-101	Fundamental in Fire & Environment health Safety	4	-	-	4	4	40	60	100
M. Voc. HEV-102	Safety management-1	4	-	-	4	4	40	60	100
M. Voc. HEV-103	Legislations related to Fire & EHS	4	-	-	4	4	40	60	100
M. Voc. HEV-104	OJT-I (On Job Training NSQF Level-9)	-	-	36	36	18	500		500
	TOTAL	12	-	36	48	30			800

Second Semester

Course Code	Course Title	L	T	P	CH	CP	Int. A	ESE	Total
M. Voc. HEV - 201	Fire Service operations	4	-	-	4	4	40	60	100
M. Voc. HEV - 202	Safety Management-2	4	-	-	4	4	40	60	100
M. Voc. HEV - 203	Occupational Health & First Aid	4	-	-	4	4	40	60	100
M. Voc. HEV - 204	OJT-II (On Job Training NSQF Level-9)	-	-	36	36	18	500		500
	TOTAL	12	-	36	48	30			800

Third Semester

Course Code	Course Title	L	T	P	C H	CP	Int. A	ESE	Total
M. Voc. HEV -301	Basics of Electrical & Electronics	4	-	-	4	4	40	60	100
M. Voc. HEV -302	Town Planning & Building Design	4	-	-	4	4	40	60	100
M. Voc. HEV -303	Strength of Materials	4	-	-	4	4	40	60	100
M. Voc. HEV -304	OJT-III (On Job Training NSQF Level-9)	-	-	36	36	18	500		500
		12	-	36	48	30			800

Fourth Semester

Course Code	Course Title	L	T	P	C H	CP	Int. A	ESE	Total
M. Voc. HEV -401	Fire Protections sysems-2	4	-	-	4	4	40	60	100
M. Voc. HEV -402	Fire Fighting & Safety codes & standards	4	-	-	4	4	40	60	100
M. Voc. HEV -403	Rescue techniques& Equipment's	4	-	-	4	4	40	60	100
M. Voc. HEV -404	OJT-IV (On Job Training NSQF Level-9)	-	-	36	36	18	500		500
		12	-	36	48	30			800

Assessment Criteria (100 Marks Per Subject)
(For General Components)

S. No.	Components	Maximum Marks
1	Assignment-1	20
2	Assignment-2	20
3	ESE	60

Assessment Criteria (500 Marks) (For OJT)
For Skill Component

S. No.	Components	Maximum Marks
1	Attendance	50
2	General Behaviour & Discipline	50
3	Technical Skill	200
4	Presentation Skill	200