

TRAINING SYLLABUS

1. Course (Training) title						
Empowering Occupational Safety and Health for Sustainable Development						
2. Course description (short description of the course content and context)						
This training responds to the modern need for occupational health and safety (OHS) education that not only covers classical principles but also leverages digital technologies and data analytics. In a changing higher-education and labour environment, graduates and OHS experts must be equipped to design, implement and manage safety systems that are evidence-based, transparent, and adaptable aligning with institutional and societal needs for responsibility, accountability, and continuous improvement.						
3. Learning Outcomes						
By the end of the training, participants will be able to: <ul style="list-style-type: none"> – Understand, critically assess, and appropriately select digital tools for managing workplace health and safety, such as IoT sensors, digital data-collection platforms, dashboards, and reporting systems. – Collect, manage, and analyze occupational health, safety, and environmental data, including incidents, near-misses, and leading and lagging indicators, to support evidence-based and data-driven decision making. – Design an integrated workplace safety management plan that incorporates digital monitoring, environmental sustainability measures, inclusive safety practices, data analysis, feedback mechanisms, and continuous improvement processes. 						
4. Relevant Competencies (keep the relevant)						
<table border="1"> <thead> <tr> <th>Competency Area</th> <th>Competency Description</th> </tr> </thead> <tbody> <tr> <td>Technical and Digital Competencies</td> <td> <ul style="list-style-type: none"> – Ability to use digital tools, platforms, and sensor-based systems for monitoring workplace safety. – Competence in collecting, managing, and analyzing OHS-related data to support safety decisions. – Competence in applying data-driven approaches to evaluate hazards, incidents, and prevention measures. </td> </tr> <tr> <td>OHS Management Competencies</td> <td> <ul style="list-style-type: none"> – Ability to identify workplace hazards and conduct risk assessments using systematic methods. – Competence in designing and implementing digital OHS programs with integrated monitoring mechanisms. – Skills in proposing prevention strategies based on leading and lagging safety indicators. – Ability to support continuous improvement within an OHS management system using evidence-based decisions. </td> </tr> </tbody> </table>	Competency Area	Competency Description	Technical and Digital Competencies	<ul style="list-style-type: none"> – Ability to use digital tools, platforms, and sensor-based systems for monitoring workplace safety. – Competence in collecting, managing, and analyzing OHS-related data to support safety decisions. – Competence in applying data-driven approaches to evaluate hazards, incidents, and prevention measures. 	OHS Management Competencies	<ul style="list-style-type: none"> – Ability to identify workplace hazards and conduct risk assessments using systematic methods. – Competence in designing and implementing digital OHS programs with integrated monitoring mechanisms. – Skills in proposing prevention strategies based on leading and lagging safety indicators. – Ability to support continuous improvement within an OHS management system using evidence-based decisions.
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Green OHS and Sustainable Practices	Integrating environmental protection with worker safety: safe handling of renewable energy technologies, circular-economy processes, low-carbon operations.	
Inclusive OHS and social responsibility	Ensuring health and safety for diverse groups (women, young and older workers, people with disabilities, migrant and informal workers); promoting equality and accessibility.	

5. Skills (cognitive and practical skills—problem solving, applying methods, using tools)

Cognitive Skills

- Analyze workplace hazards and assess occupational risks using structured OHS methods, considering digital, environmental, and human factors.
- Evaluate the effectiveness of safety interventions with respect to risk reduction, environmental impact, and worker inclusiveness.
- Integrate digital innovation, sustainability principles, and inclusive design into evidence-based OHS decision-making.
- Formulate comprehensive OHS solutions based on data, regulatory requirements, and ethical considerations rather than assumptions.

Practical Skills

- Implement safe and sustainable work practices that reduce exposure to hazards while minimizing environmental impact.
- Adapt safety procedures, communication, and workplace organization to meet the needs of diverse workers, including different abilities, ages, and health conditions.
- Integrate digital, green, and inclusive measures into an occupational health and safety management system.

6. Prerequisites/Entry requirements

Knowledge and Understanding

Learners should have basic understanding of:

- General OHS concepts (hazards, risks, incidents, preventive measures)
- Basic workplace safety terminology and regulatory context

Skills Requirements

- Basic computer literacy (use of spreadsheets, online platforms, file management)
- Fundamental data handling ability (entering, reading, or interpreting simple datasets)

Recommended (not mandatory but beneficial)

- Familiarity with risk assessment processes or safety management systems
- Basic analytical thinking or experience with data analysis tools/software
- Experience in a workplace setting related to safety or compliance (internship/practical exposure acceptable)

7. Learners will engage in activities such as:

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- **Short quizzes** to check understanding of key concepts and terminology

- **Class participation and discussions** to encourage reflective and critical thinking
- **Practice tasks/mini-assignments** applying digital OHS tools, data interpretation, or case analysis
- **Instructor or peer feedback sessions** on project drafts or data analysis exercises
- **Hands-on exercises** using digital platforms, dashboards, or incident reporting systems

9. Total Workload Breakdown

Component	Contact Hours	Participant Workload	Description / Notes
Lectures	2h per day (3 days) = 6h	—	Theoretical foundations on digital tools and sustainability frameworks
Practical Workshops	3h per day (3 days) = 9h	—	Tool walkthroughs, data visualization labs
Supervised Group Work	1h per day (3 days) = 3h	—	Guidance on group project
Self-study	—	3h per day (3 days)	Background reading, case analysis, tool practice and reflection
Total	18h	9h	~180 hours total workload

10. Course Structure (3 Modules)

Module No.	Module Title	Short Description
M1	Digital OHSafety	This module introduces the application of digital tools in occupational health and safety management. Participants learn how mobile applications, sensors, data platforms, and digital reporting systems are used to identify hazards, monitor risks, and improve incident prevention and response in real work environments.
M2	Green OHSafety	This module focuses on integrating occupational health and safety with environmental protection. Participants explore safe and sustainable work practices, including the reduction of hazardous substances, waste management, energy efficiency, and environmental risk control at the workplace.
M3	Inclusive OHSafety	This module addresses workplace safety from an inclusive perspective. Participants learn how to adapt safety measures, work organization, and communication to different worker abilities, ages, health conditions, and needs, ensuring equal protection, accessibility, and dignity for all employees.

11. Pedagogical Approaches

Instructional Approach	Application	Relation to D3.1 Materials
Competency-based assessment	All modules	Each module includes targeted tasks mapped to Twin Transition Competency Framework.
eLearning platforms integration	All modules	All learning materials will be fully available in eLearning platform: authorized lectures, reading materials, templates, cases, assignments, quizzes, self-assessment tools.
Blended learning	Entire training	Flipped classroom structure: students prepare basic concepts via eLearning materials, while in-class activities focus on applied exercises, simulations, and mentoring sessions.

12. Mode of delivery (mark the relevant)

- **Classroom**
- **Blended**
- **Online**
- **Workplace learning**

13 Language

- **English**

14. Resources

Materials	Input from CDP and Pedagogy	Notes on Content Development
Authorized lectures	Module-based lectures following active learning principles.	Each module includes theoretical inputs and applies case discussions.
Practical training materials	Derived from active learning approaches, problem-based tasks, real-life business scenarios (templates for persona creation, green KPIs, campaign storyboards	Industry and public sector examples will be embedded per module.

15. Quality Assurance

- Alignment with national and EU VET standards
- Feedback mechanisms: (student and participant surveys)

16. Consortium institutions involved in preparation

- University of Novi Sad (UNS)
- Sarajevo School of Science and Technology (SSST)
- The Ss. Cyril and Methodius University in Skopje in North Macedonia (UkiM)