Hazardous Waste Handling Course (HWHC) XX-XX & Hazardous Material Operator Course (HMOC)XX-XX

Instructor:
Sammy Supnet CETEP
Juan A. Montez Training Specialist
Donal P. Vogel Training Specialist
Kyle J. Geib Training Specialist
Section: ES Training **Session:** Year Round **Year:** 2025

Mission Statement

Provide guidance and resources to implement environmental policies and programs that will sustain compliant operations, protect Marine Corps liabilities, and safeguard the capability of MCIWEST-MCB Camp Pendleton installations and ranges to support current and future readiness requirements.

Vision Statement

To serve as keeper of the Marine Corps Environmental Program by maintaining regulatory compliance, ensuring public health, and stewarding the nation’s resources in support of our Corps mission while protecting and enhancing the quality of life of those who call our installations "home".

Course Title

Hazardous Waste Handler Course (HWHC) & Hazardous Material Fuel Operators Course (HMOC)

Text Books & Digital Material

Textbooks handed out, it will be available via Marine Net (Moodle)

Training	Fiscal 2025
Training Dates	October XX, 2024 to October XX, 2024
Drop Date	October XX, 2024
Withdrawal Date	October XX, 2024
Class Days	M,T,W,R--

Class Time 0730 to 1630

Prerequisites:

USMC- Introduction to Hazardous Material and Hazardous Waste (MCIEIHM01A)

USMC-Hazardous Material Transportation for Drivers & Security Awareness Class: Access the Security Awareness class online at this link. http://dothazmat.vividlms.com/
If you are a new user, click on "register now" to create an account. Enroll in the course titled "8.0 Security Requirements" and complete it.

Course Description

The Unit Environmental Compliance Program course offers a comprehensive introduction to the foundational elements of environmental compliance within military operations. Designed for Marines stationed at Marine Corps Base Camp Pendleton, this course emphasizes the importance of adhering to federal, state, and local environmental regulations, such as the Clean Air Act (CAA), Clean Water Act (CWA), and Resource Conservation and Recovery Act (RCRA).

Participants will gain a deep understanding of the specific Marine Corps and Camp Pendleton orders that dictate environmental practices, ensuring that all unit activities align with the stringent standards set forth by these directives. A crucial component of the course is the role of the Environmental Compliance Coordinator. Students will explore the responsibilities associated with this position, including how to effectively manage compliance efforts within their unit, safeguarding the environment while maintaining operational readiness.

The course also delves into various environmental programs and considerations that are essential when conducting training operations at Camp Pendleton. This includes a focus on sustainable practices that reduce environmental impact while supporting mission objectives. Participants will learn how to apply these principles in real-world scenarios, balancing the demands of military training with the necessity of environmental stewardship.

A key feature of the program is the incorporation of 21st-century learning methods. By utilizing interactive digital workbooks, gamification, and journaling, the course fosters critical thinking and problem-solving skills. These modern educational tools are designed to engage participants more fully, encouraging them to think creatively about how to address environmental challenges within their operational context.

Overall, this course prepares Marines to effectively manage hazardous materials and waste, ensuring compliance with a complex web of environmental regulations. By equipping participants with both the knowledge and practical skills needed for environmental compliance, the course contributes to the sustainability of military operations and the protection of natural resources, ultimately supporting the broader mission of the Marine Corps.

Faculty Name

Sammy S. Supnet	**Email** Sammy.s.supnet@usmc.mil	**Faculty Title**	Regional CTEP Coordinator
Juan A. Montez	**Email** juan.a.montez@usmc.mil	**Faculty Title**	Training Specialist
Donald P. Vogel	**Email** donald.vogel@usmc.mil	**Faculty Title**	Training Specialist
Kyle J. Geib	**Email** kyle.j.geib.civ@usmc.mil	**Faculty Title**	Training Specialist

Office Information

We are available for Monday - Friday 0700 am-1630 pm, virtually, or by appointment for face to face meetings. Phone number is included in the syllabus to schedule meetings Monday through Friday. Please call or email to schedule a virtual meeting during office hours.

Additional Contact Information

Phone: 760-725-9775

Educational Philosophy

This developmental approach emphasizes active, student-centered learning where students or trainees take responsibility for their own education. It uses a problem-posing methodology, supported by skilled instructors who facilitate learning by challenging students with problem-solving tasks. The approach encourages collaboration, allowing students to learn through hands-on experiences and by interacting with each other, ensuring that Marines are both engaged and effectively absorbing the material. (Mullen III, 2020)

MarineNet or Moodle as a Library Resources

MarineNet/Moodle as a Library Resource:

Digital Repository: MarineNet/Moodle functions as a digital library, offering a comprehensive collection of learning materials such as course content, instructional videos, reading assignments, and reference documents. These resources are easily accessible to students and professionals, enabling continuous learning and development.

Access to Specialized Knowledge: Just like a traditional library, MarineNet/Moodle provides access to specialized knowledge and resources that cater to specific fields, such as military training, hazardous materials management, leadership development, and more. Users can explore these resources to deepen their understanding and enhance their professional skills.

Interactive Learning Environment: Beyond static resources, MarineNet/Moodle integrates interactive elements like discussion forums, quizzes, and collaborative projects. This mirrors the dynamic aspects of a modern library where learning is not just about consuming information but also engaging with it actively.

Personalized Learning Pathways: Similar to how a library offers a variety of resources for different interests, MarineNet/Moodle allows users to follow personalized learning pathways. They can choose courses and resources that align with their career goals or areas of interest, creating a tailored educational experience.

Support for Lifelong Learning: MarineNet/Moodle, like a library, supports the concept of lifelong learning by offering continuous access to educational materials. Users can revisit and review course content, stay updated with new information, and keep their knowledge current, just as they would with new publications in a traditional library.

MarineNet/Moodle in this way, it's value is highlight as a versatile and accessible resource for knowledge acquisition and professional development.

Core Learning Outcomes

In this lesson asynchronous approach is computer-based learning. In that, student can engage in a variety of ways, an interactive workbook is an online version of a student practice book that contains educational materials, tasks, and self-check with captivating elements to help students practice what they have learned in the MOODLE classroom. Student journaling involves providing students with a space to record their thoughts, questions, and progress on their reading, writing, or collaborative discussions. Instructors read student's journals and respond accordingly. Kahoot is an educational platform focused on competitive quizzes, with elements of gamification, microlearning and social learning.

Lesson 1 Unit Environmental Compliance Program (Training Day Zero)

1. **Federal, State, and Local Regulations:** Understanding and identifying the key federal, state, and local environmental regulations that are applicable to unit compliance. This includes acts like the Clean Air Act (CAA), Clean Water Act (CWA), and Resource Conservation and Recovery Act (RCRA).

2. **Marine Corps and Base Orders:** Recognizing the specific Marine Corps and Marine Corps Base Camp Pendleton orders relevant to environmental compliance.
3. **Environmental Compliance Coordinator Role:** Gaining knowledge of the roles and responsibilities of the Environmental Compliance Coordinator to ensure the unit is compliant.
4. **Environmental Programs and Considerations:** Identifying various environmental programs and considerations, particularly in relation to conducting training operations aboard Marine Corps Base Camp Pendleton.
5. **21st-Century Learning Methods:** Emphasizing the use of modern educational approaches, including interactive digital workbooks, gamification, and journaling to foster critical thinking and problem-solving skills.

These objectives aim to prepare Marines to effectively manage hazardous materials and waste, ensuring compliance with environmental regulations and contributing to the sustainability of military operations.

21st century learning refers to the educational approach and practices that are aligned with the needs and demands of the modern world, characterized by rapid technological advancements, globalization, and evolving societal needs. It emphasizes the development of a diverse set of skills, including critical thinking, creativity, collaboration, communication, digital literacy, problem-solving, and adaptability, to thrive in today's interconnected and rapidly changing world. 21st century learning often incorporates technology as an integral part of the learning process, promoting personalized and student-centered approaches that foster lifelong learning and prepare individuals for success in a knowledge-based economy.

Lesson 2 Hazardous Waste Handling (Training Day 1)

1. **Purpose of the Course**: The training is focused on managing hazardous materials and waste in compliance with Federal, State, and Local Laws.
2. **Key Learning Objectives**:
    - Understanding Safety Data Sheets (SDS) to identify chemical hazards.
    - Proper handling, storage, and disposal of hazardous materials and waste.
    - Selection of appropriate DOT-approved containers for waste disposal.
3. **Teaching Methodology**: The course employs a 21st-century learning approach using the Jigsaw Method. This method involves collaborative learning where students become experts in specific topics and teach their peers, enhancing understanding and critical thinking.
4. **Course Structure**: The course is task-oriented, involving 3.5 hours of training with a focus on both individual mastery and group collaboration.
5. **Assessment**: The course includes tests to assess understanding, found in a designated "Test Folder."

These core learnings ensure that participants are equipped to manage hazardous waste safely and in compliance with regulations, utilizing modern educational strategies for effective learning.

Lesson 3 Compatibility (Training Day 1)

The core learning points from the provided documents focus on proper handling, storage, and management of hazardous materials and waste, ensuring compliance with Environmental Protection Agency (EPA) regulations and Department of Defense (DoD) standards.

Key takeaways include:

1. **Compatibility and Compliance:** Understanding and applying compatibility principles are crucial in the safe storage of hazardous materials and waste. This includes using the EPA Compatibility Chart and Safety Data Sheets (SDS) to identify correct storage practices.
2. **Active Learning Approaches:** Training incorporates modern methodologies like Flipped Classroom, Project-Based Learning (PBL), and Cooperative Learning. These strategies emphasize student-centered learning, critical thinking, collaboration, and the application of 21st-century skills to solve real-world environmental challenges.
3. **Hazardous Waste Management:** The proper classification, storage, and documentation of hazardous materials are essential. Trainees are expected to apply regulations at local, state, federal, and DoD levels to ensure compliance and safety in hazardous waste handling.

These points aim to develop a comprehensive understanding of hazardous waste management practices, enhancing both knowledge and practical skills for effective environmental compliance.

Lesson 4 (Training Day 2)

Learning Objective:

1. **Responding to Hazardous Waste Spills:** Trainees will develop the ability to effectively respond to hazardous waste spills, using proper equipment, communication tools, and adherence to local, state, and federal regulations. This includes recognizing the severity of spills and executing appropriate containment, control, and decontamination procedures.
2. **Identifying Response Procedures:** Trainees will be able to select the correct response procedures for Tier 1 incidents, ensuring adherence to regulations.
3. **Termination Procedures:** Trainees will identify appropriate termination procedures for Tier II/III incidents, ensuring safety and regulatory compliance.
4. **Incident Command System (ICS) Roles:** Trainees will learn to select the proper ICS roles and responsibilities, ensuring a clear understanding of their duties during spill responses.
5. **Site Hazard Recognition:** Trainees will identify site-specific hazards and apply appropriate safety and health control measures to protect employees.
6. **Personal Protective Equipment (PPE):** Trainees will select the proper PPE required for different types of spill responses, ensuring compliance with federal standards.
7. **Spill Containment and Control:** Trainees will learn to select proper containment and control methods to effectively manage hazardous spills.
8. **Decontamination Procedures:** Trainees will identify correct decontamination procedures to follow after spill responses, ensuring thorough and safe clean-up operations.
9. **Decision-Making Skills:** The training will enhance decision-making skills through collaborative learning activities like the Gallery Walk Chalk Talk method and decision-forcing games, emphasizing critical thinking, communication, and creativity.

Instructional Methodologies:

- **Gallery Walk Chalk Talk:** Engages students in silent reflection and collaborative learning through observation and written discussion.
- **Decision-Forcing Game:** Enhances decision-making skills by encouraging deliberate consideration of choices in structured scenarios.

These outcomes aim to equip trainees with the necessary skills to handle hazardous waste spills safely, efficiently, and in compliance with all relevant regulations.

Lesson 5 (Training Day 3)

Learning Objectives:

1. **Hazardous Waste Storage Compliance:**
    - Trainees will identify different types of accumulation areas for hazardous waste storage, ensuring proper labeling and compliance with federal, state, and local laws.
2. **Universal Waste Management:**
    - Trainees will identify different types of universal waste and the appropriate labels for their storage, ensuring compliance with all applicable regulations.
3. **Satellite Accumulation Point Identification:**
    - Trainees will learn to identify a Satellite Accumulation Point for hazardous waste disposal, ensuring unit compliance with relevant laws.
4. **Accumulation Point Identification:**
    - Trainees will be able to identify proper accumulation points for hazardous waste disposal, maintaining regulatory compliance.
5. **Universal Waste Identification and Labeling:**
    - Trainees will identify various types of universal waste and the correct labels required for their storage, ensuring adherence to legal standards.

Lesson 6 (Training Day 3)

Learning Objectives:

1. **Hazardous Materials Division Site Administration Book Maintenance:**
    - Trainees will learn to maintain a Hazardous Materials Division Site Administration Book in accordance with the references provided (MCIWEST-MCB CAMPENO 5090.7A).
2. **Component Identification:**
    - Trainees will identify the key components of a Hazardous Materials Division Site Administration Book following the guidelines in MCIWEST-MCB CAMPENO 5090.7A.
3. **Weekly HMD Hazardous Waste Site Inspection:**
    - Trainees will conduct a weekly inspection of an HMD hazardous waste site, applying the standards from MCIWEST-MCB CAMPENO 5090.7A.

HMOC (Training Day 4)

Lesson 1: Maintaining Forms and Documents as Required

Learning Objective (TLO):

- **Objective:** Students will be able to state in writing the proper procedures for safely transporting Hazardous Materials (HM) and Hazardous Waste (HW) on or around a military installation.
- **Scope:** This will be done in accordance with (IAW) the applicable sections of the following regulations:
    - 49 Code of Federal Regulations (CFR)
    - Defense Transportation Regulations (DTR)
    - Installation Contingency Plan (ICP)

- **Objective:** Students will maintain the forms and documents required for transporting HM/HW IAW the following regulations:
    - 49 CFR Parts 100-185
    - DTR Part II - Cargo Movement Chapter 204
- **Materials:** Students will be provided with:
    - Motor Vehicle Inspection Form (DD Form 626)
    - Safety Data Sheets (SDS)
    - Emergency Response Guidebook (ERG)
    - Student Exercise

1. **Understanding Regulatory Requirements:**
    - Students will demonstrate knowledge of the regulatory requirements for the transportation of hazardous materials and waste by accurately stating procedures in writing.
2. **Documentation Accuracy:**
    - Students will correctly maintain and complete all necessary forms and documents, including DD Form 626, SDS, and relevant emergency response materials, ensuring they align with the regulatory standards.
3. **Application of Procedures:**
    - Students will apply the learned procedures in a practical setting, using the student exercise to simulate real-world scenarios involving the transportation of hazardous materials.
4. **Compliance with Safety Standards:**
    - Students will show the ability to comply with safety standards and regulations by ensuring all documentation is accurate and available when transporting HM/HW.
5. **Effective Use of Resources:**
    - Students will effectively use the provided resources (SDS, ERG) to ensure the safe and compliant transport of hazardous materials, demonstrating the ability to reference and apply this information in practice.

Lesson 2: Inspect HM/HW Before Transporting

Learning Objective (TLO):

- **Objective:** Students will be able to state in writing the proper procedures for safely transporting Hazardous Materials (HM) and Hazardous Waste (HW) on or around a military installation.
- **Scope:** This will be accomplished in accordance with (IAW) the applicable sections of:
    - 49 Code of Federal Regulations (CFR)
    - Defense Transportation Regulations (DTR)
    - Installation Contingency Plan (ICP)

- **Objective:** Students will inspect a HM/HW load for transportation IAW the following regulations:
    - 49 CFR Parts 100-185
    - DTR Part II - Cargo Movement Chapter 204
- **Materials:** Students will be provided with:
    - Instructional materials
    - Student handouts
    - A tabletop exercise.

1. **Regulatory Compliance Awareness:**
    - Students will demonstrate an understanding of the regulatory requirements for the transportation of HM/HW by accurately stating the proper procedures in writing.
2. **Documentation and Inspection Proficiency:**
    - Students will exhibit proficiency in completing and maintaining necessary transportation documentation, ensuring that all required forms align with 49 CFR, DTR, and ICP standards.
3. **Practical Application of Inspection Procedures:**
    - Students will apply learned knowledge in a tabletop exercise, accurately inspecting a HM/HW load for transportation according to the regulations specified in 49 CFR Parts 100-185 and DTR Part II Chapter 204.
4. **Identification and Mitigation of Hazards:**
    - Students will be able to identify potential hazards during the inspection process and take appropriate actions to mitigate risks, ensuring the safe and compliant transport of hazardous materials.
5. **Effective Communication of Safety Procedures:**
    - Students will clearly and effectively communicate the proper procedures for the safe transportation of HM/HW, demonstrating their ability to articulate regulatory requirements and inspection protocols in both written and practical formats.
6. **Critical Thinking and Decision-Making:**
    - Students will utilize critical thinking skills to evaluate scenarios presented in the tabletop exercise, making informed decisions that reflect a comprehensive understanding of the relevant transportation regulations and safety procedures.

Lesson 3: Determine the Compatibility of HM/HW

Learning Objective (TLO):

- **Objective:** Students will state in writing the proper procedures for safely transporting Hazardous Materials (HM) and Hazardous Waste (HW) on or around a military installation.
- **Scope:** This will be done in accordance with (IAW) the applicable sections of:
    - 49 Code of Federal Regulations (CFR)
    - Defense Transportation Regulations (DTR)
    - Installation's Contingency Plan (ICP)

- **Objective:** Students will determine the compatibility of Hazardous Materials (HM) in a given scenario using the Segregation Table as per:
    - **49 CFR Parts 100-185**
- **Materials:** Students will be provided with:
    - Instructional materials
    - Student handouts
    - A chemical compatibility scenario

Core Learning Outcomes:

1. **Understanding of Regulatory Procedures:**
    - Students will demonstrate a clear understanding of the regulatory requirements for the transportation of HM/HW by accurately stating the procedures in writing, ensuring alignment with 49 CFR, DTR, and ICP.
2. **Proficiency in Chemical Compatibility Determination:**
    - Students will accurately assess the compatibility of various hazardous materials using the Segregation Table from 49 CFR Parts 100-185, ensuring safe transport and storage.
3. **Application of Compatibility Knowledge:**
    - Through a chemical compatibility scenario, students will apply their understanding of material compatibility to make informed decisions, preventing unsafe combinations of hazardous materials.
4. **Risk Mitigation and Safety Assurance:**
    - Students will identify potential risks related to the incompatibility of hazardous materials and take appropriate measures to mitigate these risks, ensuring compliance with safety regulations.
5. **Effective Use of Regulatory Resources:**
    - Students will effectively use regulatory resources, such as the Segregation Table, to guide decision-making processes related to the transportation and storage of hazardous materials.
6. **Critical Analysis and Problem-Solving:**
    - Students will develop critical thinking skills by analyzing chemical compatibility scenarios, determining safe practices, and solving potential issues in the transportation of hazardous materials.
7. **Communication of Safe Transport Procedures:**

- Students will articulate the proper procedures for the safe transportation of HM/HW, demonstrating the ability to communicate complex regulatory information in a clear and effective manner.

Lesson 4: Respond to a Spill when Transporting HM/HW

Learning Objective (TLO):

- **Objective:** Students will state in writing the proper procedures for safely transporting Hazardous Materials (HM) and Hazardous Waste (HW) on or around a military installation.
- **Scope: This will be accomplished in accordance with (IAW) the applicable sections of:**
  - 49 Code of Federal Regulations (CFR)
  - Defense Transportation Regulations (DTR)
  - Installation Contingency Plan (ICP)

- **Objective:** Students will respond to a spill of hazardous materials in a tabletop exercise using the procedures outlined in their Installation Contingency Plan (ICP).
- **Materials: Students will be provided with:**
  - Instructional materials
  - Student handouts
  - A tabletop spill response exercise

Core Learning Outcomes:

1. **Regulatory Compliance Understanding:**
   - Students will demonstrate a thorough understanding of the regulatory requirements for transporting HM/HW by accurately stating the procedures in writing according to 49 CFR, DTR, and ICP.
2. **Spill Response Preparedness:**
   - Students will develop the ability to respond effectively to hazardous material spills by applying the procedures outlined in the Installation Contingency Plan during a tabletop exercise.
3. **Application of Contingency Procedures:**
   - Through practical application in a simulated scenario, students will apply the knowledge gained from instructional materials to manage a hazardous material spill in compliance with their Installation Contingency Plan.
4. **Risk Management and Mitigation:**
   - Students will identify potential hazards associated with spills and demonstrate the ability to implement appropriate risk mitigation strategies to minimize environmental and safety impacts.
5. **Effective Communication and Coordination:**
   - Students will practice communicating effectively during a spill response, coordinating with relevant personnel and agencies as outlined in the ICP to ensure a swift and safe resolution to the incident.
6. **Critical Thinking and Problem-Solving:**

- Students will utilize critical thinking skills to analyze the spill scenario presented in the tabletop exercise, making informed decisions to control and contain the hazardous material spill.

7. **Documentation and Reporting:**
   - Students will be able to correctly document the spill response actions taken, ensuring that all required reports and forms are completed in accordance with the ICP and regulatory requirements.

Core Assessment

Comprehensive Exam
HWHC 45 question knowledge check
HMOC 25 question knowledge check

Assignments

Assessment items include: Comprehensive final exam, homework, class quizzes, classroom participation, and a project.

Homework: Answers to homework questions will be found in the text or covered in the lecture. Reading and understanding the text is an essential course requirement. We are trying to teach you how to read and understand technical material.

Class Quizzes: Quizzes will be done in class and will not be graded. They will however impact your class participation points, and will be helpful in studying for the midterm and final. The quizzes cannot be made up so attendance is important.

Final: The final will be cumulative. It will be BASED ON the required reading and class lectures. It will be multiple choice, open notes, and open book.

Classroom Participation: If you take part in the discussions, prepare for class, and listen to the presentations, you will score well. You must complete the assigned reading prior to class in order to participate in the classroom discussions.

Remediation: The best way to remediate is to fail to do the assignments on time. Other good ways are cutting class, skipping the reading, and doing no pop tests. Zeros will seriously hurt your grade.

SAVE YOUR OLD TESTS AND ASSIGNMENTS, THEY ARE THE ONLY EVIDENCE THAT YOU DID THE WORK.

Grading Plan

Grades will be awarded in this course based on the following scale:

A = 90% and above

B = 80-89%

* Nothing is permanent except change. I may change the grading plan, if circumstances change.

Classroom rules of conduct

We are adults and situations will arise that need to be handled. If you have a phone call that you must take please be respectful to the class and leave the classroom while on the phone. Please keep in mind that class will continue so you may miss material and will be responsible for reviewing this information on your own time.

Literacies

The Environmental Literacies include analytical and critical thinking, community and civic responsibility, scientific inquiry, ethics and values, literary and artistic expression, and interdisciplinary and integrative thinking. The Literacies are reflected within Training Command Mission Statement & Vision Strategy 2020-2030 force design.