

Common Module
Biosafety and Bioterrorism
 Module Description

Country GR	Institution Hellenic Military Academy of Combat Support Officers	Common Module Biosafety and Bioterrorism	ECTS 2.0
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Service All	Minimum Qualification of Instructors
Language English	

- Minimum English skills at Level B2 of the Common European Framework of Reference for Languages (CEFR) or NATO STANAG Level 3.
- Experience in conducting academic lectures.

Prerequisites for international participants	Goal of the Module
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- English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.
- Knowledge of basic hygiene principles.

- Food safety and the basic principles of food poisoning prevention.
- Basic principles of food hygiene for the specific needs of military units.
- Management of gastrointestinal outbreaks.
- Bioterrorism threats.

Learning outcomes	Know- ledge	<ul style="list-style-type: none"> • Knows foodborne poisoning prevention. • Knows how to plan reaction at a gastrointestinal outbreak. • Knows how to recognise biological warfare and bioterrorism. • Knows job-related biological risks. • Knows how to prevent a biological warfare outbreak.
	Skills	<ul style="list-style-type: none"> • Detects bioterrorism hazards. • Acts according to HACCP (Hazard Analysis of Critical Control Points) principles in order to eliminate foodborne pathogen outbreak.
	Compe- tences	<ul style="list-style-type: none"> • Is familiar with the preventive medicine protocols. • Is alerted for bioterrorism hazards. • Seeks actively to improve his/her language skills.

Verification of learning outcomes:

- **Observation:** During this module, trainees will be evaluated during each session, in order to document the understanding of the individual topics of the module.

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Module details		
Main Topic	Recom- mended WH	Details
EU food safety and quality standards and protocols	2	<ul style="list-style-type: none"> • ISO – International Organisation for Standardisation. • An introduction to ISO 9001:2015, ISO 22000:2005, BRC v8, IFS v6.1. • Other connected and relevant standards. • Minimum requirements for deployable forces.
Food safety and HACCP principles	2	<ul style="list-style-type: none"> • Food safety and the basic principles of food poisoning prevention.
Water safety and security plan	2	<ul style="list-style-type: none"> • Water quality and hazards in EU legislation. • Risk assessment and Risk management. • Implementation: water treatment and mitigation measures.
Epidemiology of pathogenic enterobacteria in humans and livestock	2	<ul style="list-style-type: none"> • Livestock as a vector for the dissemination of enteric bacteria to humans and the environment. • Interactions among humans, livestock, and peridomestic animals concerning zoonotic transmission
Management of gastrointestinal illness outbreak	2	<ul style="list-style-type: none"> • Introduction to foodborne outbreaks.
Safety of food processing for institutional catering	2	<ul style="list-style-type: none"> • Integrating safety of processing food in controlled conditions with implementation practices at the consumption site in remote, challenging environments. Extending systemic food safety management from where food is produced, to where food is offered for consumption at special conditions.
Bioterrorism and biosecurity in relation to food safety and food fraud vulnerability assessment	2	<ul style="list-style-type: none"> • Pathogens that can be used as bioterrorism factors with regard to their presence in foodstuff.
Animal diseases as bioweapons	2	<ul style="list-style-type: none"> • Historical data. • Pathogens of concern. • Animal diseases and bioterrorism. • The wildlife factor.
Zoonotic pathogens as biological warfare agents	2	<ul style="list-style-type: none"> • The wide variety of animal species, that act as reservoirs for dissemination of pathogens. • Direct and indirect implications of these pathogens (bacteria, viruses, parasites) in public health
Antimicrobial resistance: A serious threat for global public health	3	<ul style="list-style-type: none"> • Introduction in antimicrobial resistance as a health problem. • Military aspects concerning AMR in deployable forces. • Introduction to the “One Health” concept.
Total lecture WH	21	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	29	<ul style="list-style-type: none"> • For reflecting the teaching hours.
Total WH	50	The detailed amount of hours for the respective main topic is up to the course director according to national law or home institution's rules.



Implementation Group	
Doc.:	IG/ XXXX
Date :	20 02 2019
Origin:	HMACSO

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List of Abbreviations:

- B1, B2 CEFR Levels
- CEFR Common European Framework of Reference for Languages
- ECTS European Credit Transfer and Accumulation System
- ESDC European Security and Defence College
- GR Greece
- HACCP Hazard Analysis of Critical Control Points
- HMACSO Hellenic Military Academy of Combat Support Officers
- IG Implementation Group
- NATO North Atlantic Treaty Organization
- STANAG Standardization Agreement
- TDB to be determined
- WH Working Hour