Country	Institution	Common Module	ECTS
GR	**Hellenic Air Force Academy (HAFA)**	**Unmanned Aerial Systems (UASs)**	**2.0**

Service **ALL**	**Minimum Qualification of Instructors** • **Officers**: ○ English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG Level 3. ○ Relevant expertise on Unmanned Aerial Systems as pilot or technician. ○ Experience of collaboration with multinational military personnel.
Language **English**	• **Civilian Lecturers:** ○ English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG Level 3. ○ Expertise on relevant topics. ○ Relevant academic publications.
SQF MILOF	○ **Competence area** - Military technician ○ **Learning area** - Employment of weapon/ operating platform/ systems ○ **Organisation level** - Single Arm/Branch or Single service

Prerequisites for international participants:

- English: Common European Framework of Reference for Languages (CEFR) Level B1 (preferably B2) or NATO STANAG Level 2.
- At least 1 year of national (military) higher education.

Goals of the Module

- Explain UASs support capabilities of subunits during CSDP missions
- Define the requirements of the UASs required to sustain CSDP missions.

Learning	Know-ledge	• Formulate the basic principles of the technologies involved in UAS. • Identify the trends and challenges related to UASs support capabilities of subunits during full spectrum of operations.
	Skills	• Analyse the configuration and components based on the application. • Incorporate UAS to CSDP missions.
	Responsibility and autonomy	• Employ UAS capabilities to CSDP missions. • Examines and correctly assesses UAS technologies and challenges.

Verification of learning outcomes

- **Observation:** Throughout the module students will be presented all technologies involved in Unmanned Aerial Systems and they will discuss the given topics in the plenary and present teamwork results. During these work students are evaluated to verify their performance.
- **Evaluation:** Group presentations of given topics related to UAS technologies and applications. Working groups will focus on the basic description and characteristics of a selected subject.
- **Test**: Written exam at the end of the Module.

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Revised by LtCol Spinello / Chairman of LoD 8 ..... 25 January2021
Approved as "Common" by the Implementation Group ..... 24 June 2021
Revised according to SQF MILOF by CAPT (N) N.Dimitrov and Assoc. Prof. N.Karadimas / Chairpersons LoD 2/8 ..... 23rd May 2024

Module Details		
Main Topic	**Recom-mended WH**	**Details**
Introduction to Unmanned Aerial Systems (UAS)	4	• History • Terminology • Types & Categories • EU & NATO Classification
Aerodynamics, Automated Control Systems and Flight Techniques	5	• Basic Aerodynamic principles • Automated Control Systems and Autonomy • Air Traffic Control & Flight Rules • Flight Safety • Human factor
Anatomy, Communications and Sensors	5	• Vehicle's main parts and subsystems • Communications and Control Station • Gimbals & Payloads • Sensors types
European Institutional Framework	2	• EU decisions • U-Space • National Regulations
UAS Applications & CSDP Missions	6	• Remote Sensing Applications. • UAS civilian applications • Crisis Management and Disaster Response • Law enforcement & Security
Military UAS missions and Unmanned Combat Aerial Vehicles (UCAV)	6	• History of military UAS applications • Military UAS capabilities • Modern UAS military missions • Unmanned Combat Aerial Vehicles (UCAV) or Lethal Drones • Challenges and Ethics
Counter UAS	5	• Modern threats and challenges • Detection and tracking Technologies • Passive defence • Active defence
Total	**33**	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	27	• Preparation for the upcoming lessons and for exam(s). • Reflection of the topics issued. • E-learning may also be counted to the self-studies.
Total WH	**60**	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. During which topic(s) the syndicate elaborations and presentations will take place is up to the course director.

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List of Abbreviations:

CEFR ..... Common European Framework of Reference for Languages
ECTS ..... European Credit Transfer and Accumulation System
NATO ..... North Atlantic Treaty Organization
STANAG ..... Standardization Agreement
WH ..... Working Hour
ICT ..... Information and Communications Technology
CSDP ..... Common Security and Defence Policy
EU ..... European Union
UAS ..... Unmanned Aerial System
UAV ..... Unmanned Aerial Vehicle
UCAV ..... Unmanned Combat Aerial Vehicles
UASs ..... Unmanned Aerial Systems

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