

Course Curriculum

To be reviewed by <i>February 2023</i>	Activity Number 48b	Vehicle Safety and 4x4 Driving	ECTS 16h
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<u>Target Audience</u> <i>Participants should be persons deploying to CSDP missions with required self-driving in rough terrain</i> <i>Priority is given to the personnel selected to the CSDP Missions and Operations.</i>	<u>Aim</u> This course familiarises and systemises the knowledge and practical skills in safe and effective usage of vehicles in remote areas without technical support, in difficult/close to extreme driving conditions with various 4x4-vehicle settings, amassing the vehicle operator/crew safety and operational effectiveness.
<u>Disclaimer</u> This curriculum is based on the key learning objectives recommended by the CPCC Security and Duty of Care Office.	

Learning Outcomes	Knowledge <ul style="list-style-type: none"> Familiarise with technical aspects of 4x4 vehicle settings respectively to changing terrain/surface conditions Get acquainted with technical features of 4x4 vehicles construction, emphasizing the aspect of its practical usage in off road conditions Present examples of behaviour for a driver in extreme road, terrain configuration, assuring safe performance of the operational task Safely and effectively, operate vehicles' recovery equipment, wheel changing and snow chains fitting Increase knowledge and methods to avoid or effectively deal with specific threats that may exist in mission situations Specify and list the generic security conditions and threats prevailing in mission Identify behaviour, decision making obstacles and team dynamics that may occur during and after a hostile incident
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	Skills	<ul style="list-style-type: none"> Assessment of current road/terrain conditions leading to the 4x4 vehicle settings, aiming at safe and effective negotiation of the road stretch Reading terrain features, identifying the most effective and safe driving path, driving up/down slope or on a side incline Using terrain features for the safe road negotiation limiting the vehicle's technical, geometrical limitations. Effectively manage safety and security approaches and procedures during periods of heightened risk Demonstrate and practice the skills necessary for managing hostile incidents Basic introductory skills to STOP model for immediate and post-immediate stress management
	Competences	<ul style="list-style-type: none"> Evaluate and measure risks on any stretch of the road/terrain and eliminate any excessive risk for the operational task, vehicle or crew safety Assess, terrain and set the 4x4 vehicle to the actual conditions Co-ordinate and contribute to the team approach in reducing vulnerabilities and increasing strengths Assess and analyse the mission operational environment in order to help decrease known risks to a reasonably acceptable level Analyse the specific threats and implement context-sensitive tactics and countermeasures to improve safety and protection from harm

Evaluation, verification and certification of learning outcomes

- Level 1 Observation and Satisfaction:**

Active observation and feedback by the course facilitator, assessment of the course participants at each exercise progress, only after satisfactory level of skills is demonstrated movement ahead with more demanding exercise is possible.

- Level 2 Learning:**

Course participant successfully completes the thematic block of training being able to safely and effectively perform 80% of carried out practical training activities. Course participants are assessed during and on completion of each training session.

Course Structure		
Main Topic	Recommended Working hours (e-Learning)	Contents
In Test	(4)	E-learning component focussing on driving and safety
4x4 Vehicle working principle	1 (theory)	<ul style="list-style-type: none"> Differential working principle with its limitations in off road driving, slippery surface influence 4x4 settings change respectively to the driving changing conditions, surface type, terrain gradient, presence of obstacles Soft shell versus armoured vehicles
4x4 Vehicle wheel change	1 (theory) 2 (practice)	<ul style="list-style-type: none"> Identification of safest possible location <ul style="list-style-type: none"> Suitable terrain selection, firm surface Usage of the terrain features for reducing/using of the weight shift in uneven terrain Vehicle securing <ul style="list-style-type: none"> Usage of the 4x4 settings

		<ul style="list-style-type: none"> · Hand brake · Securing the of the diagonal wheel • Preparation of the spare wheel, securing the vehicle with the spare wheel • Usage of the jack and associated tools • Wheel change • Safety during the operation • Usage of the torque wrench
4x4 Vehicle snow chain installation	1 (theory) 1 (practice)	<ul style="list-style-type: none"> • Snow chain types, differences in construction, locks, performances • Vehicle securing for the snow chain installation • 4x4 vehicle – which axle wheels to install snow chains • Limitations in the usage of snow chains • Safety during the operation
4x4 Vehicle recovery	1 (theory) 2 (practice)	<ul style="list-style-type: none"> • Snatch strap recovery <ul style="list-style-type: none"> · Recovery organisation · Recovery risk assessment · Recovery setup · Terrain configuration, space availability, surface type & gravity aspect in recovery · Safety during the operation • Winch recovery <ul style="list-style-type: none"> · Winch familiarisation, construction, practical use · Forces working during the winch usage · Snatch block usage aspects · Recovery organisation · Recovery risk assessment · Recovery setup · Recovery accessories facilitating the winch operation · Terrain configuration, space availability, surface type & gravity aspect in recovery · Safety during the operation
Practical 4x4 vehicle driving	7 (practice)	<ul style="list-style-type: none"> • Soft shell and armoured vehicles respective driving characteristics • Position behind the steering wheel – driving safety and effectiveness • Clutch usage while driving in off road conditions versus driving safety • Effective usage of mirrors • Basics of off road driving • Adequate 4x4 settings to respective terrain features • Vehicle angles & ground clearance • Familiarisation with vehicle performance in extreme driving conditions uphill & downhill driving – driving forward & reverse • Recovery of steep climb failure • Terrain assessment – best path identification
TOTAL	16	

<u>Materials</u>	<u>Additional information</u>
<ul style="list-style-type: none"> • SAFE • MISSIONWISE • CoC = Code of Conduct • CSDP Field Security Handbook 	<p>In order to facilitate discussion between course participants and senior EU personnel, the Chatham House Rule is used during all residential modules: "participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed".</p> <p>All course participants have to prepare for the residential module by going through the relevant e-Learning preparatory phase, which is mandatory.</p>