



# UNIVERSITY OF DEFENCE

## FACULTY OF MILITARY LEADERSHIP

### Institutional Data Sheet for the International Spring Semester 2023/2024

The International Semester is offered in the English language.

<b>Erasmus ID Code:</b>	CZ BRNO10
<b>Website:</b>	<a href="http://www.unob.cz">www.unob.cz</a>
<b>Erasmus+ Coordinator:</b>	Jana Pracná Tel: +420 973 44 37 47 Email: <a href="mailto:jana.pracna@unob.cz">jana.pracna@unob.cz</a>
<b>Dates:</b>	Start: 25 March 2024 End: 12 July 2024
<b>Requirements for incoming Cadets/Civilian Students:</b>	Selected by home Higher Education Institution English language – B1 or NATO STANAG Level 2
<b>Latest day of reporting participants:</b>	<b>30 November 2023</b>
<b>Latest day of sending Learning Agreements:</b>	<b>15 December 2023</b>
<b>Documents required for incoming Cadets/Civilian Students:</b>	<a href="#">Documents</a>

<p><b>Accommodation &amp; Meals:</b></p>	<p>Each participant has to find accommodation by his own. University of Defence does not have enough accommodation facilities for foreign students. Faculty of Military Leadership will try to arrange accommodation in the University of Defence dormitory or in the town's dormitory but without guarantee. These two mentioned accommodation possibilities will be known at least one month prior to the beginning of the international semester. Commercial accommodation is very expensive in Brno.</p> <p>Only lunch can be provided in dining hall during working days (ca. 3 EUR/lunch). Official currency in Czech Republic is Czech Crown (CZK; Koruna česká).</p>
<p><b>Student Responsibilities</b></p>	<p>The student responsibility is to attend classes of chosen courses. The students will not be incorporated into a school regiment, so they will not participate in any military musters.</p> <p>To behave properly according to military rules - follow the principles of military decorum.</p> <p>Obey the rules for the use of sports facilities.</p>
<p><b>SARS CoV-2 safety procedures:</b></p>	<p>As COVID-19 is still widespread in the EU, safety procedures and restrictions to international travels are updated on a regular basis.</p> <p>Up to date information concerning travel restrictions and the epidemiological situation in Czech Republic can be found using the link below:</p> <p><a href="https://covid.gov.cz/en/situations/foreigners/possibilities-and-obligations-foreigners-when-entering-cz">https://covid.gov.cz/en/situations/foreigners/possibilities-and-obligations-foreigners-when-entering-cz</a></p> <p>Please be advised that all COVID-19 measures are tentative and as a such, subject to changes according to the national health regulations in effect.</p>

# COURSE PLAN FOR SPRING SEMESTER OF ACADEMIC YEAR 2023/2024

## FACULTY OF MILITARY LEADERSHIP

Course	Lectures	ECTS	Classification
<b>Military Leadership</b>	36	3	Credit
<b>Defence Resources</b>	56	3	Credit
<b>Artillery Operations and Procedures</b>	36	3	Credit
<b>Selected Economics and Financial Risks</b>	48	4	Credit
<b>Security Aspects of International Relations</b>	36	3	Credit
<b>Subversive Threats</b>	36	3	Credit
<b>Probability and Statistics</b>	56	4	Credit
<b>Operational Research</b>	56	4	Credit
<b>Foreign Language I (English)</b> at least B1 level (intermediate)	28	2	Credit
<b>Foreign Language II (French)</b> at least A1-A2 level (pre-intermediate)	28	2	Credit
<b>Physical Education</b>	28	2	Credit

Country <b>CZ</b>	Institution <b>UoD</b>	Non-common Module <b>Military Leadership (D)</b>	ECTS <b>3</b>
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Service <b>Infantry, Recce</b>	<p style="text-align: center;"><b>Minimum Qualification of Instructors</b></p> <ul style="list-style-type: none"> <li>• Experience in leadership at Company level of combat branches (e.g.: Infantry, mechanized Infantry, reconnaissance branch) with education and with practical experience on company TLP.</li> <li>• At least one mission/operation abroad, preferably on platoon or higher level.</li> </ul> <p>Note: These two points are realistic for military personnel. However, this course is taught, in part, by a civilian, who does not have said experience.</p> <p>Instructors must have either:</p> <ul style="list-style-type: none"> <li>- Experience in leadership at Company level of combat branches (e.g.: Infantry, mechanized Infantry, reconnaissance branch) with education and with practical experience o company TLP and At leas one mission/operation abroad, preferably on platoon or higher level.</li> <li>- Or, hold a doctorate in a relevant field.</li> <li>• English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG Level 3.</li> </ul>
Language <b>English</b>	

<p><b>Prerequisites for international participants</b></p> <ul style="list-style-type: none"> <li>• English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>• Basic managerial and leadership; competences, focused on basic tactical level (light infantry platoon or equivalent).</li> <li>• Understanding of light infantry platoon level tactics (defence, attack, movement, raid and ambush) and knows national military decision making process.</li> <li>• Basic decision making techniques in stressful conditions.</li> <li>• Ability to plan, organise and accept responsibility in stressful conditions.</li> </ul>	<p style="text-align: center;"><b>Goal of the Module</b></p> <ul style="list-style-type: none"> <li>• Improve Leadership Competences.</li> <li>• Examine different creative military problem solving techniques.</li> <li>• Practice problem solving with a group and individually.</li> <li>• Enhance ability to quickly adapt to the changing environment (in stressful conditions, lack of time, discomfort).</li> <li>• Increase stress-resilience and provide techniques to improve stress management.</li> <li>• Train stress-management techniques in leadership (i.e. to manage stress in others).</li> </ul>
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<b>Learning outcomes</b>	Know- ledge	<ul style="list-style-type: none"> <li>• Steps of the TLP and METT-TC analysis.</li> <li>• Sequences of orders.</li> <li>• Knowledge about necessary behaviour to improve leadership competences in stressful conditions.</li> <li>• Theoretical and practical knowledge about stress and stress management techniques.</li> </ul>
	Skills	<ul style="list-style-type: none"> <li>• Is capable of various decision making techniques in different tactical situations and changing environments as a leader.</li> <li>• Has the necessary organisational skills to organize different and various elements within his task organization as a leader.</li> <li>• Is able to lead unit's sub-elements in in different situations and environments.</li> <li>• Actively manages stress situations during long lasting burdens as a leader.</li> </ul>
	Compe- tences	<ul style="list-style-type: none"> <li>• Improvement of leadership profiles (sustainability, adaptability, decision-making ability, communication &amp; organisational skills) in stressful conditions.</li> <li>• Is capable of making decision in an unpredictable, potentially life-threatening environment in stressful conditions.</li> <li>• Awareness of responsibility of subordinated human beings and their life as a leader.</li> </ul>

**Verification of learning outcomes:**

Observation and final task results in the overall module grading at the final part. The final part is focused on the practical mastery of planning at the basic tactical level (troop leading procedures - light infantry level) and performing exercises on a virtual simulation. An individual qualified feedback is to be issued to the participants.

<b>Module details</b>		
<b>Main Topic</b>	<b>Recommended WH</b>	<b>Details</b>
Introduction	2	<ul style="list-style-type: none"> <li>Introduction to the concept and structure of the module and an introduction to the theory of military leadership.</li> </ul>
Leader's authority	2	<ul style="list-style-type: none"> <li>The lecture introduces the issue of the authority of a military leader from the perspective of psychology, sociology and the specifics of the military environment.</li> </ul>
Leader's communication	2	<ul style="list-style-type: none"> <li>The lecture introduces the issue of communication of a military leader in a military environment.</li> </ul>
Leader's authority and unit communication	2	<ul style="list-style-type: none"> <li>Practical solution of model situations from the military environment - decision problems of a military leader.</li> </ul>
Leadership in stress conditions	6	<ul style="list-style-type: none"> <li>Theoretical lectures and practical exercises in the field of decision making in lack of time and discomfort environment.</li> </ul>
Leadership combat psychology	2	<ul style="list-style-type: none"> <li>Practical exercises is focused on moral dilemmas in military conflict.</li> </ul>
Principles of TLP	4	<ul style="list-style-type: none"> <li>The lecture introduces in detail with the basic steps of TLP and METT-TC analysis on the example of a light infantry unit - platoon level. Provides practical instructions for solving individual steps.</li> </ul>
Issue of order and reconnaissance	2	<ul style="list-style-type: none"> <li>The lecture introduces the methods and principles of conducting command reconnaissance.</li> <li>The lecture introduces the methods and principles of issuing a combat order. Provides practical instructions for verbal communication with the unit.</li> </ul>
Commander reconnaissance	4	<ul style="list-style-type: none"> <li>Practical training in conducting command reconnaissance in the area of interest of future training.</li> <li>It is a source for understanding the received order and familiarization with the real environment of the area of interest and the task of the unit.</li> </ul>
Issue of order	4	<ul style="list-style-type: none"> <li>Practical execution of the issue of an order.</li> <li>Students perform the tasks of a platoon leader and are evaluated according to predetermined criteria.</li> </ul>
Final exercise – virtual simulation training	6	<ul style="list-style-type: none"> <li>Final exercise based on virtual simulation.</li> <li>Students perform the tasks of a platoon leader and are evaluated according to predetermined criteria.</li> </ul>
<b>Total lecture WH</b>	<b>36</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Studies	0	<ul style="list-style-type: none"> <li>On request only.</li> </ul>
<b>Total WH</b>	<b>36</b>	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.

Country <b>CZ</b>	Institution <b>UoD</b>	Common Module <b>Defence Resources</b>	<b>ECTS</b> <b>3</b>
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Service <b>All</b>	<p align="center"><b>Minimum Qualification of Instructors</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3.</li> <li>Subject matter expert.</li> <li>Operational knowledge and experience.</li> </ul>
Language <b>English</b>	

<p><b>Prerequisites for international participants</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>At least 1 year of national (military) higher education.</li> <li>Basic military training.</li> </ul>	<p align="center"><b>Goal of the Module</b></p> <ul style="list-style-type: none"> <li>To consolidate, extend and deepen knowledge of defence resources within international environment.</li> </ul>
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<b>Learning outcomes</b>	Know-ledge	<ul style="list-style-type: none"> <li>Understanding key economic principles in defense, incl. relations to economic performance, public finance and labor market as well as essentials of economic analysis.</li> <li>Awareness of specification, classification and economic consequences of military expenditures and defense budgeting.</li> <li>Introduction to arms production and arms trade at national as well as international scene.</li> <li>Awareness of economic aspects of defense alliances.</li> <li>Understanding economic aspects of armed conflicts, their causes and direct as well as indirect economic impacts.</li> <li>Introduction of current as well as expected future trends in defense economics in connection of emerging threats and challenges, technologies as well as about defense resources perspectives.</li> </ul>
	Skills	<ul style="list-style-type: none"> <li>Ability to apply principles and instruments of economic analysis in defense secto.</li> <li>Ability to consider the main economic problems related to the security and defence field.</li> <li></li> <li>Analyzing and interpreting data in defense economics.</li> </ul>
	Compe- tences	<ul style="list-style-type: none"> <li>Broadening critical thinking and application of essential research methods.</li> <li>Practicing team work in international environment.</li> <li>Practicing English language competences incl. specific defense economics related terminology.</li> </ul>

### Verification of learning outcomes:

- **Observation:** Throughout the Module students are to discuss the given topics within syndicates and in the plenary and present teamwork results. During these discussions students are to be evaluated to verify their competences.
- **Project:** Team project, presentation of its summary and defense of related main findings. Within this projects, teams of app 3-4 students are tasked to elaborate a study on economic aspects of defense sector of a selected country. Structure of the study corresponds with structure of topics throughout the module. Projects outputs include a text reports, main findings presentation and its defense.

### Module details

Main Topic	Recom- mended WH	Details
<b>Introduction</b>	6	<ul style="list-style-type: none"> <li>• Purpose of the course</li> <li>• Aims of the course:</li> <li>• Rules of study (Scope of the course (topics); Conditions for granting credit (activity, proved knowledge, team projects)</li> <li>• Essential terminology and concepts in defense economics</li> <li>• Defense as public goods</li> </ul>
<b>Historical development in defense economics</b>	4	<ul style="list-style-type: none"> <li>• History of defense economics from ancient till modern times</li> <li>• Detailed developments since the WW1</li> <li>• More detailed developments during and after the Cold War</li> </ul>
<b>Military expenditures</b>	14	<ul style="list-style-type: none"> <li>• Measuring military expenditures</li> <li>• Global/regional trends in military expenditures</li> <li>• Determinants of military expenditures</li> <li>• Economic consequences (effects) of military expenditures (Multiplication effect, Crowding out effect)</li> <li>• Methods of analyzing and processing data in defense economics</li> </ul>
<b>Economic aspects of arms production</b>	10	<ul style="list-style-type: none"> <li>• Arms firm theory</li> <li>• Spin off and spillover effects</li> <li>• Trade in military materiel (arms):</li> <li>• Role of government, its aims, roles and motivations</li> <li>• Market characteristics (ntl. vs intl., supply and demand sides, barriers)</li> <li>• Major global actors (states vs. companies)</li> <li>• International armament cooperation</li> </ul>
<b>Armed forces and labor market</b>	4	<ul style="list-style-type: none"> <li>• Models of military manpower (all-volunteer vs. conscription, pros and cons)</li> <li>• Historical and international overview</li> </ul>
<b>Economic efficiency in defense</b>	4	<ul style="list-style-type: none"> <li>• Causes of inefficiency in the defense</li> <li>• Problem of expressing efficiency in defense</li> <li>• Methods for efficiency evaluation in defense</li> </ul>
<b>Armed conflict economics and terrorism</b>	4	<ul style="list-style-type: none"> <li>• Economic causes and impacts of Armed conflicts</li> <li>• Classification of costs of armed conflicts</li> <li>• Economic impacts of terrorism</li> <li>• Sources and methods terrorism financing</li> </ul>
<b>Current trends in defense</b>	4	<ul style="list-style-type: none"> <li>• Economics aspects of military robotics</li> <li>• Economics aspects of cyber security and cyber defense</li> </ul>



<b>economics</b>		
<b>Seminar project</b>	6	<ul style="list-style-type: none"> <li>• Elaboration/presentations/defense of team project reports</li> </ul>
<b>Total lecture WH</b>	<b>36</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Study	34	<ul style="list-style-type: none"> <li>• Preparation for the upcoming lessons and for exam(s).</li> <li>• Reflection of the topics issued.</li> <li>• Elaboration of seminar project report, preparation of its presentation</li> </ul>
<b>Total WH</b>	<b>66</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>

Country <b>CZ</b>	Institution <b>UoD</b>	Common Module <b>Artillery Operations and Procedures</b>	<b>ECTS</b> <b>3</b>
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Service <b>All</b>	<p align="center"><b>Minimum Qualification of Instructors</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3.</li> <li>Subject matter expert.</li> <li>Operational knowledge and experience.</li> </ul>
Language <b>English</b>	

<p><b>Prerequisites for international participants</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>At least 1 year of national (military) higher education.</li> <li>Basic military training.</li> </ul>	<p align="center"><b>Goal of the Module</b></p> <ul style="list-style-type: none"> <li>To consolidate, extend and deepen knowledge of artillery fire control and artillery tactics within international environment.</li> </ul>
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<b>Learning outcomes</b>	Know-ledge	<ul style="list-style-type: none"> <li>Discusses rules of shooting and fire control of ground artillery.</li> <li>Reproduces the foundations of the theory of shooting.</li> <li>Analyzes the possibility of firing artillery units.</li> <li>Presents conditions which affect the accuracy of fire.</li> <li>Classifies kinds of targets for artillery fire.</li> <li>Selects the method for determining the elements of fire and effect on targets.</li> <li>Masters the tactics, techniques and procedures (TTP) of artillery operations during various tasks.</li> <li>Knows the main aspects of artillery tactics and subsequently being able to organize the work of the artillery firing, target acquisition of fire control unit.</li> <li>Knows different approaches to artillery operations in various levels of degradation.</li> <li>Knows basic approaches to artillery manual gunnery and fire control systems.</li> <li>Knows basic aspects of artillery fire control.</li> <li>Knows all necessary requirements the artillery needs for its function in military operations.</li> <li>Knows characteristics of basic artillery assets (sensors, effectors and others).</li> <li>know basic approaches for airspace control in terms of ground and air deconfliction.</li> </ul>
	Skills	<ul style="list-style-type: none"> <li>Evaluate the possibility of firing of artillery units.</li> </ul>

	<ul style="list-style-type: none"> <li>• Uses the established instruments and equipment to perform specialized tasks in accordance with their capabilities and limitations and these skills is able to use in planning and implementing special projects.</li> <li>• Determines the elements for fire of artillery units using funds established in the Czech Army.</li> <li>• Determines how to adjust the fire on targets.</li> <li>• Is able to draw tactical situation using NATO Joint military symbology according to APP-6(D).</li> <li>• Is able to conduct basic planning of artillery operations during Joint Fire Support integration.</li> <li>• Is able to choose best artillery assets for artillery support in terms of sensors and effectors.</li> <li>• Is able to manually calculate basic firing data for standard weapon systems.</li> </ul>
Compe- tences	<ul style="list-style-type: none"> <li>• Is able to analyze the performance conditions of firing tasks, take measures to create conditions for their effective performance and decide the most appropriate ways of decommissioning targets.</li> <li>• Is able to organize and manage the activities of subordinate due to preparation and fire control, issue regulations, orders and commands and reporting to commander.</li> <li>• Understands the course of action of the artillery units to the artillery battalion echelon and takes the necessary initiative to contribute to its success.</li> <li>• Is capable of making decisions in an unpredictable, various and degraded operating environment.</li> <li>• Performs activities and roles specific to the teamwork on different responsibilities.</li> </ul>

<b>Verification of learning outcomes:</b>	
<ul style="list-style-type: none"> <li>• <b>Observation:</b> Through the module students are required to make presentations about various artillery operations aspects. These presentations are part of module overall evaluation.</li> <li>• <b>Test:</b> Examination at the end of the module.</li> <li>•</li> </ul>	

<b>Module details</b>		
Main Topic	Recom- mended  WH	Details
Fundamentals of the firing activity of artillery units	6	<ul style="list-style-type: none"> <li>• Basic terminology apparatus</li> <li>• The trajectory of artillery projectiles</li> <li>• Angular extent in the artillery</li> <li>• Miles rule. Variance and its regularity</li> <li>• The probability of hitting the target</li> <li>• Tables of firing.</li> <li>• Fire safety measures and fire control coordination.</li> </ul>

The simplified preparation	4	<ul style="list-style-type: none"> <li>• Terms of Use</li> <li>• Principles of determining the values and ratios for artillery fire</li> <li>• Determining the elements for fire due to simplified preparation</li> <li>• Artillery commands</li> <li>• Determining the approximate corrections</li> </ul>
Determining the elements for fire due to of substitute instruments	8	<ul style="list-style-type: none"> <li>• The principles of using the kit PUO 9M</li> <li>• Plotting points and targets</li> <li>• Determination of target coordinates</li> <li>• Determining topographic elements</li> <li>• Diagram of corrections</li> </ul>
Joint Military Symbology	4	<ul style="list-style-type: none"> <li>• Introduction to military symbology</li> <li>• Land symbols (units, equipment)</li> <li>• Control measures symbology</li> <li>• JFS symbology</li> </ul>
Joint Fire Support (JFS)	2	<ul style="list-style-type: none"> <li>• Introduction to JFS</li> <li>• Artillery support description</li> <li>• Air support description</li> <li>• Naval gunfire support description</li> </ul>
Artillery Support Assets	2	<ul style="list-style-type: none"> <li>• Introduction to artillery support</li> <li>• Artillery effectors</li> <li>• Artillery sensors</li> <li>• Other assets</li> </ul>
Artillery positioning	2	<ul style="list-style-type: none"> <li>• Introduction to artillery positioning</li> <li>• Non-autonomous pieces positioning</li> <li>• Basics of autonomous navigation systems (INS/GPS/VMS)</li> <li>• Autonomous pieces and sensors positioning</li> <li>• Artillery Survey</li> </ul>
Artillery in Offensive Operations	2	<ul style="list-style-type: none"> <li>• Introduction to military offensive operations</li> <li>• Basic artillery tasks in offensive operations</li> <li>• Maneuver during offensive operations</li> </ul>
Artillery in Defensive Operations	2	<ul style="list-style-type: none"> <li>• Introduction to military defensive operations</li> <li>• Basic artillery tasks in defensive operations</li> <li>• Maneuver during defensive operations</li> </ul>
Battlespace management	4	<ul style="list-style-type: none"> <li>• Introduction to battlespace management (BM)</li> <li>• BM – Land</li> <li>• BM – Air</li> </ul>
<b>Total lecture WH</b>	<b>36</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Studies	30	•
<b>Total WH</b>	<b>66</b>	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.

Country <b>CZ</b>	Institution <b>UoD</b>	Non-common Module <b>Selected Economics and Financial Risks</b>	<b>ECTS</b> <b>3</b>
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Service <b>All</b>	<p align="center"><b>Minimum Qualification of Instructors</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3.</li> <li>Subject matter expert.</li> <li>Operational knowledge and experience.</li> </ul>
Language <b>English</b>	

<p><b>Prerequisites for international participants</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>At least 1 year of national (military) higher education.</li> <li>Basic military training.</li> </ul>	<p align="center"><b>Goal of the Module</b></p> <ul style="list-style-type: none"> <li>To consolidate, extend and deepen knowledge of selected economics and financial risks within international environment.</li> </ul>
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<b>Learning outcomes</b>	Knowledge	<ul style="list-style-type: none"> <li>Knowledge of capital market and currency markets as a prerequisite for managing economic and financial risks.</li> <li>Knowledge of basic types of economic and financial risks and their classification.</li> <li>Knowledge of fiscal policy from the point of view of the economic policy of the state and its impacts with regard to the economic risks arising from it.</li> <li>Knowledge of basic economic fundamentals and the area of financial management, laws, principles, relationships and links between related economic variables.</li> <li>Knowledge of analytical support in the field of financial decision-making and prevention of financial risks.</li> <li>Knowledge of the principles of economic, financial and risk management in the organization of the public sector.</li> </ul>
	Skills	<ul style="list-style-type: none"> <li>Identify, appropriately classify and prioritize economic and financial risks in the financial management of the organization.</li> <li>Using the acquired knowledge, the ability to critically evaluate selected economic contexts from the perspective of risk management.</li> <li>Ability to create analytical, informational and evaluation support to the superior element within the job / job classification in the field of financial management.</li> <li>Skills necessary for the preparation and implementation of financial decisions and evaluation of their economic impact.</li> <li>Management on the basis of basic financial and economic indicators and the ability to deduce the nature of their impact on management using appropriate methods and tools.</li> </ul>
	Competences	<ul style="list-style-type: none"> <li>Respecting basic economic laws and inferring under conditions of real</li> </ul>

changes in economic conditions.

#### Verification of learning outcomes:

- **Observation:** Throughout the Module students are to discuss the given topics within syndicates and in the plenary and present teamwork results. During these work students are to be evaluated to verify their competences.
- **Attendance:** 80% as minimum mandatory attendance at training lessons, activity in training, preparation for training lessons in a range of questions provided to the individual topics
- **Project:** final project determined by lecturer and its successful presentation during the final seminar.

### Module details

Main Topic	Recommended WH	Details
Economic and financial risks and their classification	4	Aim is to clarify the concept of risk and its classification in the financial field. Focus on basic concepts related to financial planning.
Risk management in public administration	4	Aim is to acquaint students with e-financial management in the public sector and with risks related to public finances.
Risk prevention	4	The aim of the topic is to acquaint students with the methods of risk prevention, the historical context and development of insurance and the products of insurance institutions.
Credit risk	4	The aim of the topic is to acquaint students with the products of commercial financial institutions and socio-pathological phenomena that are the result of financial problems in connection with risk.
Capital risks	4	The aim of the topic is to acquaint students with the management of selected financial and economic risks in the company.
Investment decision making and tools for its support	4	The aim of the topic is to acquaint students with the tools of investment decision-making and its support.
Risk assessment	4	The aim of the topic is to acquaint students with specific methods of risk assessment and show their strengths and weaknesses.
Final seminar	2	Work out a comprehensive example in the specified formal arrangement. At the final seminar, present it in a time allowance of 10 minutes.
<b>Total lecture WH</b>	<b>30</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Studies	36	<ul style="list-style-type: none"> <li>• Work on a project</li> <li>• Preparation for seminars tasks</li> <li>• Project consultation</li> </ul>
<b>Total WH</b>	<b>66</b>	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.

Country <b>CZ</b>	Institution <b>UoD</b>	Non-common Module <b>Security Aspects of International Relations</b>	ECTS <b>3</b>
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Service <b>All</b>	<b>Minimum Qualification of Instructors</b> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3.</li> <li>Subject matter expert.</li> <li>Operational knowledge and experience.</li> </ul>
Language <b>English</b>	

<b>Prerequisites for international participants</b> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>At least 1 year of national (military) higher education.</li> <li>Basic military training.</li> </ul>	<b>Goal of the Module</b> <ul style="list-style-type: none"> <li>To consolidate, extend and deepen knowledge of security aspects of international relations within international environment.</li> </ul>
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<b>Learning outcomes</b>	Knowledge	<ul style="list-style-type: none"> <li>Understands the system of international relations</li> <li>Knows the main international actors and understands their character</li> <li>Understands the international security architecture</li> <li>Understands the characteristics and fundamental principles of international law of armed conflicts</li> <li>Understands the main global security threats</li> <li>Understands the US, Russian and German security policy</li> </ul>
	Skills	<ul style="list-style-type: none"> <li>Is able to analyse and evaluate the international system and its processes.</li> <li>Is able to analyse and evaluate the global security threats and their impact</li> <li>Is able to analyse and evaluate the security policies of chosen states</li> </ul>
	Competences	<ul style="list-style-type: none"> <li>Multidisciplinary understanding of global processes and relationships</li> <li>Capacity of supporting and presenting orally and in writing personal opinions and conclusions</li> </ul>

<p align="center"><b>Verification of learning outcomes:</b></p> <ul style="list-style-type: none"> <li><b>Observation:</b> Throughout the Module students are to discuss the given topics within seminars.</li> <li><b>Presentation:</b> Each student deliver presentation on specific topic.</li> <li><b>Test:</b> Written examination at the end of the module. The type of the test is up to the Course Director.</li> </ul>
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<b>Module details</b>		
<b>Main Topic</b>	<b>Recommended</b>	<b>Details</b>

	WH	
Theoretical Framework, Historical Development and Character of the International System	4	<ul style="list-style-type: none"> <li>• Become familiar with the system of international relations.</li> <li>• Introduce the basic characteristics and actors of the IR system.</li> </ul>
Contemporary International Security Architecture	4	<ul style="list-style-type: none"> <li>• Explain the concept of security architecture.</li> <li>• Outline the basic stages of security architecture development and describe the links of its key elements.</li> <li>• Generalize the consequences of the development and current state of the security environment.</li> </ul>
International Law (Ius ad bellum)	4	<ul style="list-style-type: none"> <li>• Introduce the basic principles of the international law of armed conflicts.</li> <li>• Define the content of the “right to war” (Ius ad bellum).</li> </ul>
International Law (Ius in bello)	4	<ul style="list-style-type: none"> <li>• Define the content of “law in war” (Ius in bellum).</li> </ul>
Global Security Threats	8	<ul style="list-style-type: none"> <li>• Explain basic terminology in the field of security environment assessment and security threats.</li> <li>• Introduce global security threats in the security sectors.</li> <li>• Discuss the Czech Republic's position on current global security threats.</li> </ul>
Security Policy of the USA	4	<ul style="list-style-type: none"> <li>• Explain the origins of American strategic thinking.</li> <li>• Point out the basic principles of the past and present US security policy.</li> </ul>
Security Policy of the Russian Federation	4	<ul style="list-style-type: none"> <li>• Explain the origins of Russian strategic thinking.</li> <li>• Point out the basic principles of the past and present Russian security policy</li> </ul>
Security policy of Germany	4	<ul style="list-style-type: none"> <li>• Introduce basic principles and genesis of the German security policy.</li> <li>• Define priorities of the German security policy and the forms of their enforcement.</li> <li>• Introduce implications for the Czech Republic and the Czech Armed Forces</li> </ul>
<b>Total lecture WH</b>	<b>36</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Studies	30	<ul style="list-style-type: none"> <li>• Become familiar with the content of the required sources.</li> </ul>
<b>Total WH</b>	<b>66</b>	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.



Country <b>CZ</b>	Institution <b>UoD</b>	Non-common Module <b>Subversive Threats</b>	ECTS <b>3</b>
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Service <b>All</b>	<b>Minimum Qualification of Instructors</b> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3.</li> <li>Subject matter expert.</li> <li>Operational knowledge and experience.</li> </ul>
Language <b>English</b>	

<b>Prerequisites for international participants</b> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>At least 1 year of national (military) higher education.</li> <li>Basic military training.</li> </ul>	<b>Goal of the Module</b> <ul style="list-style-type: none"> <li>To consolidate, extend and deepen knowledge of subversive threats within international environment.</li> </ul>
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<b>Learning outcomes</b>	Know-ledge	<ul style="list-style-type: none"> <li>Familiarity with different categories of subversive threats and their manifestation.</li> </ul>
	Skills	<ul style="list-style-type: none"> <li>Ability to recognize subversive activities.</li> <li>Ability to recognize radical and extremist narratives and behaviour in society.</li> <li>Safe behaviour in cyber space.</li> </ul>
	Compe-tences	<ul style="list-style-type: none"> <li>Critical thinking</li> </ul>

<p style="text-align: center;"><b>Verification of learning outcomes:</b></p> <ul style="list-style-type: none"> <li><b>Observation:</b> active participation in seminars (20% of evaluation)</li> <li><b>Test:</b> written final test (80% of evaluation)</li> </ul>
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<b>Module details</b>		
Main Topic	Recom-mended WH	Details
Theoretical framework of subversive threats	2	<ul style="list-style-type: none"> <li>Introduction to subversive threats (characteristics, manifestation, categorazation)</li> </ul>

Subversive activities of state actors	4	<ul style="list-style-type: none"> <li>• Subversive action as a prelude or alternative to direct military intervention</li> <li>• Case studies</li> </ul>
Political radicalism	4	<ul style="list-style-type: none"> <li>• Extremism and symbolism</li> <li>• Basic variants of extremism (right-wing, left-wing, other)</li> </ul>
Sects, cults and subversive ideologies	4	<ul style="list-style-type: none"> <li>• Case studies of subversive sects and cults with a particular focus on QAnon</li> </ul>
Terrorism I	4	<ul style="list-style-type: none"> <li>• Subversive terrorism in Europe in the past and today (ethno-separatist, Islamist, right-wing, monothematic)</li> </ul>
Terrorism II	4	<ul style="list-style-type: none"> <li>• Subversive terrorism in the world: selected case studies (Boko Haram, al-Qaeda in the Islamic Maghreb, al-Qaeda in the Arabian Peninsula, Hezbollah, FARC)</li> </ul>
Cyber subversion	4	<ul style="list-style-type: none"> <li>• Military impact of cyberspace</li> <li>• Definition of cyberwarfare</li> <li>• Computer network operations</li> <li>• Categories of cyber threats and vulnerabilities</li> </ul>
Information warfare	4	<ul style="list-style-type: none"> <li>• Propaganda and other tools of information influence</li> <li>• Information influence from the part of state (Russia, China) and non-state actors</li> <li>• Impact of modern technologies on information influence</li> <li>• Countermeasures</li> </ul>
Paramilitary and militia groups	4	<ul style="list-style-type: none"> <li>• Paramilitary and militia groups as a security risk in democratic regimes</li> <li>• Examples of paramilitary and militia groups in the Czech Republic</li> <li>• Foreign case study: "Slovenskí branci" (Slovak Conscripts)</li> <li>• Security policy against paramilitary and militia-related risks</li> </ul>
Credit seminar	2	<ul style="list-style-type: none"> <li>• Written test</li> </ul>
<b>Total lecture WH</b>	<b>36</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Studies	30	<ul style="list-style-type: none"> <li>• Studying required materials and preparation for seminars</li> </ul>
<b>Total WH</b>	<b>66</b>	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.

Country <b>CZ</b>	Institution <b>UoD</b>	Non-common Module <b>Probability and Statistics</b>	ECTS <b>4</b>
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Service <b>All</b>	<b>Minimum Qualification of Instructors</b> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3.</li> <li>Subject matter expert.</li> <li>Operational knowledge and experience.</li> </ul>
Language <b>English</b>	

<b>Prerequisites for international participants</b> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>Mathematics: Basic knowledge of calculus and computer science fundamentals.</li> </ul>	<b>Goal of the Module</b> <p>The course is focused on the probability including mathematical basis for the description of discrete and continuous probability models. Students will be acquainted with the processing of one-dimensional statistical data, the theory of point and interval estimation and statistical tests that are based on normal probability distribution. The practical implementation of exploratory data analysis, calculation of estimates and statistical characteristics including the statistical hypothesis testing will be done using the software environment STAT1 and R. Statistical data and illustrative examples will be chosen with an emphasis on the field of study.</p>
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<b>Learning outcomes</b>	Know-ledge	<ul style="list-style-type: none"> <li>Student identifies the basic methods of descriptive and inductive statistics, methods of collecting real data and the creation of data files for statistical analysis.</li> </ul>
	Skills	<ul style="list-style-type: none"> <li>Student applies the basic methods of descriptive and inductive statistics, methods of collecting real data and the creation of data files for statistical analysis.</li> </ul>
	Compe- tences	<ul style="list-style-type: none"> <li>Student is able to actively utilize and interpret the results of these methods.</li> </ul>

<b>Verification of learning outcomes:</b>	
<ul style="list-style-type: none"> <li>Processing, presentation and defence of a seminar paper.</li> <li>Written and oral examination corresponding to the content of the subject.</li> </ul>	

<b>Module details</b>		
Main Topic	Recom- mended WH	Details
Introduction	4	<ul style="list-style-type: none"> <li>mathematical foundations</li> <li>introduction to the statistics</li> </ul>
Descriptive Statistics	4	<ul style="list-style-type: none"> <li>statistical data</li> <li>exploratory analysis and processing of statistical data</li> </ul>
Probability	8	<ul style="list-style-type: none"> <li>probability</li> <li>properties and calculation of probability</li> </ul>
Random Variable	12	<ul style="list-style-type: none"> <li>probability distribution</li> <li>discrete probability distributions</li> <li>continuous distributions</li> </ul>
Inductive Statistics	24	<ul style="list-style-type: none"> <li>law of large numbers and limit theorems</li> </ul>

		<ul style="list-style-type: none"> <li>• random sampling and sample characteristics</li> <li>• point and interval estimates</li> <li>• the principle of statistical hypothesis testing</li> <li>• one-sample test of hypotheses</li> <li>• two-sample tests of hypotheses</li> <li>• statistical tests on the distribution of the population</li> </ul>
Application of Statistical Methods	4	<ul style="list-style-type: none"> <li>• solving practical problems using the software STAT1 and R</li> </ul>
<b>Total lecture WH</b>	<b>56</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Studies	56	<ul style="list-style-type: none"> <li>• Homework, elaboration of a seminar paper.</li> <li>• Preparation for semestral tests and final exam.</li> </ul>
<b>Total WH</b>	<b>112</b>	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.

Country <b>CZ</b>	Institution <b>UoD</b>	Non-common Module <b>Operational Research</b>	ECTS <b>4</b>
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Service <b>All</b>	<p align="center"><b>Minimum Qualification of Instructors</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3.</li> <li>Subject matter expert.</li> <li>Operational knowledge and experience.</li> </ul>
Language <b>English</b>	

<p><b>Prerequisites for international participants</b></p> <ul style="list-style-type: none"> <li>English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.</li> <li>Mathematics: Basic knowledge of calculus and linear algebra.</li> </ul>	<p><b>Goal of the Module</b></p> <ul style="list-style-type: none"> <li>To consolidate, extend and deepen knowledge of operational research.</li> <li>To familiarize students with common types of optimization problems (namely linear programming problems, multi-criteria decision making and matrix games) and basic methods for their solution (especially the simplex method).</li> <li>To deepen knowledge of mathematical tools needed to solve selected optimization problems.</li> </ul>
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<b>Learning outcomes</b>	Knowledge	<ul style="list-style-type: none"> <li>Students will: <ul style="list-style-type: none"> <li>understand the grounds of common types of optimization problems;</li> <li>be able to identify and formulate specific optimization problems;</li> <li>understand the principles and functioning of basic methods for solving optimization problems.</li> </ul> </li> </ul>
	Skills	<ul style="list-style-type: none"> <li>Students will master mathematical tools needed for solving common types of optimization problems (namely linear programming problems, multi-criteria decision making and matrix games).</li> <li>Students will be able to <ul style="list-style-type: none"> <li>choose and apply the appropriate algorithm for solving a given optimization problem;</li> <li>find the optimal solution(s) to a problem;</li> <li>interpret the results.</li> </ul> </li> </ul>
	Competences	<ul style="list-style-type: none"> <li>Students will be familiarized with common real-life and professional optimization problems and methods for their solving.</li> <li>Students will be able to solve (basic) practical optimization problems using software (MS Excel, LiPS, online calculators).</li> </ul>

<p><b>Verification of learning outcomes:</b></p> <ul style="list-style-type: none"> <li><b>Observation:</b> The prerequisites of successful completion of the module are (1) active participation in seminars and (2) passing three written tests given during the semester. Throughout the semester, students will be asked to do homework related to topics explained at lectures and seminars.</li> <li><b>Test:</b> The module is concluded by a written final exam which will cover the topics explained throughout the semester.</li> </ul>
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<b>Module details</b>		
<b>Main Topic</b>	<b>Recommended WH</b>	<b>Details</b>
Introduction to Linear Programming (LP)	4	<ul style="list-style-type: none"> <li>LP formulations, types of LP problems</li> <li>Mathematical grounds for solving LP problems</li> </ul>
Graphical Method for Solving LP Problems	4	<ul style="list-style-type: none"> <li>Finding the optimal solution to a LP problem using Graphical Method</li> </ul>
Simplex Method and Two-phase Method	8	<ul style="list-style-type: none"> <li>Simplex algorithm for solving LP problems</li> <li>Two-phase Method</li> </ul>
Duality in LP Problems	4	<ul style="list-style-type: none"> <li>Primal and dual LP problems</li> <li>Dual simplex algorithm</li> </ul>
Transportation Problem	8	<ul style="list-style-type: none"> <li>Finding the optimal solution to a balanced transportation problem (Vogel's Approximation Method)</li> <li>Unbalanced transportation problem</li> </ul>
Assignment Problem	4	<ul style="list-style-type: none"> <li>Finding the optimal solution to an assignment problem (the Hungarian Method)</li> </ul>
Multi-criteria Decision Making	4	<ul style="list-style-type: none"> <li>Decision matrix</li> <li>Graphical Method, Weighted Sum Method</li> </ul>
Multi-objective Linear Programming (MOLP)	8	<ul style="list-style-type: none"> <li>Formulation of a MOLP problem</li> <li>Lexicographic Method, Weighted Aggregation of the Objectives Method</li> <li>Goal Programming</li> </ul>
Introduction to Matrix Games	8	<ul style="list-style-type: none"> <li>Solving matrix games with saddle point</li> <li>Finding the optimal solution to matrix games without saddle point</li> <li>Special types of matrix games without saddle point (<math>2 \times 2</math>, <math>2 \times n</math>, <math>m \times 2</math>)</li> </ul>
Solving Matrix Games as LP Problems	4	<ul style="list-style-type: none"> <li>Transformation of a matrix game into a LP problem</li> </ul>
<b>Total lecture WH</b>	<b>56</b>	
<b>Additional hours (WH) to increase the learning outcomes</b>		
Self-Studies	56	<ul style="list-style-type: none"> <li>Homework, preparation for seminars.</li> <li>Preparation for tests and final exam.</li> </ul>
<b>Total WH</b>	<b>112</b>	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.

## 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
IG	Implementation Group
NATO	North Atlantic Treaty Organization
STANAG	Standardization Agreement
WH	Working Hour

## FOREIGN LANGUAGE I (ENGLISH)

### Course description

*Foreign Language I is English.*

Students will be put into a language course on the basis of their placement test results.

The objective of the course is to develop general and professional language skills and knowledge. Students will acquire the following:

- the knowledge of terminology of their branch of study, basic military terminology and topics related to their studies;
- the skills to communicate in the field of their branch of study and in the military and everyday situations;
- language competence in professional and academic language at CEFR levels B1-B2.

### Entrance requirements

**CEFR level B1 (intermediate level)**

### Note

NTA

## FOREIGN LANGUAGE II (FRENCH)

### Course description

*Foreign Language II is French and Russian.*

Students will be put into a language course on the basis of their language knowledge. The aim of the course is to develop general and professional language skills. The language education corresponds to the CEFR European standard. The graduate acquires:

- language knowledge necessary for communication
- language communication competence in common occupational and social situations
- language competence in general and partially in professional language at CEFR level A2-B1.

### Entrance requirements

**CEFR level A1-A2 (pre-intermediate level)**

### Note

NTA



## PHYSICAL EDUCATION

**Course  
description**

This course provides knowledge of basic training methods and techniques, with an emphasis on developing and preserving levels of physical fitness required to carry out physical training activity. The course also provides students with the basic knowledge and tools needed to develop the physical and psychological strength required for stressful military training activity such as survival training for adverse situations. Civil students obtain knowledge of training methods and techniques without military training activities.

**Entrance  
requirements**

NTA

**Note**

NTA

## CONTACTS

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## ABBREVIATIONS

A1, A2 etc.	levels of language skills according to CEFR
CEFR	Common European Framework of Reference (for Languages)
ECTS	European Credit Transfer and Accumulation System

## Timeline of Erasmus+ offer of Faculty of Military Leadership for academic year 2023/2024

Semester	2021/2022															Winter semester 2023/2024												Spring semester 2023/2024															Semester																																			
Year	2023																								2024												Year																																									
Month	July			August			September			October			November			December			January			February			March			April			May			June			July			Month																																						
Week	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Week																					
Erasmus+	<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); border: 2px solid black; padding: 10px; background-color: white;"> <div style="background-color: #4682b4; color: white; padding: 5px; text-align: center; font-weight: bold;">International semester</div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center; margin-top: 5px;"> <tr> <th colspan="12">Classes</th> <th colspan="2">Exams</th> </tr> <tr> <td style="background-color: #ffff00;">B</td><td style="background-color: #ffff00;">C</td><td style="background-color: #ffff00;">D</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td style="background-color: #ffff00;">D</td><td></td> </tr> <tr> <td style="background-color: #d3d3d3;">E</td><td style="background-color: #d3d3d3;">E</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td style="background-color: #d3d3d3;">F</td><td style="background-color: #d3d3d3;">G</td><td style="background-color: #008000;">I</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td style="background-color: #d3d3d3;">H</td> </tr> </table> </div>																								Classes												Exams		B	C	D										D		E	E											F	G	I										H	Erasmus+
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Year	2023																								2024												Year																																									

- A Nomination and paperwork deadline for winter semester 2023/2024
- B Admin day on 25 March
- C International day on 11 April
- D Trip day on 13 April and 6 June
- E Day off on 29 March and 1 April (national holiday)
- F Day off on 1 May (national holiday)
- G Day off on 8 May (national holiday)
- H Day off on 5 and 6 July (national holiday)
- I Survival course from 17 to 19 May