



UNIVERSITY OF DEFENCE

FACULTY OF MILITARY LEADERSHIP

Institutional Data Sheet for the International Spring Semester 2024/2025

The International Semester is offered in the English language.

Erasmus ID Code:	CZ BRNO10
Website:	https://ud.unob.cz/
Erasmus+ Coordinator:	Jana Pracná Tel: +420 603 279 807 (WhatsApp) Email: jana.pracna@unob.cz
Dates:	Start: 24 March 2025 End: 11 July 2025
Requirements for incoming Cadets/Civilian Students:	Selected by home Higher Education Institution English language – B1 or NATO STANAG Level 2
Latest day of reporting participants:	30 November 2024
Latest day of sending Learning Agreements:	15 December 2024
Documents required for incoming Cadets/Civilian Students:	Documents

<p>Accommodation & Meals:</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>Student Responsibilities</p>	<p>The student responsibility is to attend classes of chosen courses. The students will be partly incorporated into a school regiment, but they will not participate in all military exercises.</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>SARS CoV-2 safety procedures:</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>https://covid.gov.cz/en/situations/foreigners/possibilities-and-obligations-foreigners-when-entering-cz</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 2024/2025

FACULTY OF MILITARY LEADERSHIP

Course	Department	Dep-Code	Module Type	Lectures	ECTS	Classification
Military Leadership	Department of Applied Social Sciences and Humanities	K-104	Merged	36	3	Credit
Defence Resources	Department of Resources Management	K-102	Merged	56	3	Credit
Artillery Tactics	Department of Fire Support	K-107	Erasmus+ Only	36	3	Credit
Selected Economics and Financial Risks	Department of Resources Management	K-102	Erasmus+ Only	48	4	Credit
Subversive Threats	Centre for Security and Military Strategic Studies	CSMSS	Erasmus+ Only	36	3	Credit
Probability and Statistics	Department of Quantitative Methods	K-101	Erasmus+ Only	56	4	Credit + Exam
Operational Research	Department of Quantitative Methods	K-101	Erasmus+ Only	56	4	Credit + Exam
Foreign Language I (English) at least B1 level (intermediate)	Language Centre	LC	Merged	28	2	Credit
Foreign Language II (French) at least A1-A2 level (pre-intermediate)	Language Centre	LC	Merged	28	2	Credit
Physical Education	Physical Training and Sports Centre	PTSC	Erasmus+ Only	28	2	Credit

Country CZ	Institution UoD	Non-common Module Military Leadership (D)	ECTS 3
----------------------	---------------------------	---	------------------

Service Infantry, Recce	<p style="text-align: center;">Minimum Qualification of Instructors</p> <ul style="list-style-type: none"> • 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. • At least one mission/operation abroad, preferably on platoon or higher level. <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"> - 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. - Or, hold a doctorate in a relevant field. • English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG Level 3.
Language English	

<p>Prerequisites for international participants</p> <ul style="list-style-type: none"> • English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. • Basic managerial and leadership; competences, focused on basic tactical level (light infantry platoon or equivalent). • Understanding of light infantry platoon level tactics (defence, attack, movement, raid and ambush) and knows national military decision making process. • Basic decision making techniques in stressful conditions. • Ability to plan, organise and accept responsibility in stressful conditions. 	<p style="text-align: center;">Goal of the Module</p> <ul style="list-style-type: none"> • Improve Leadership Competences. • Examine different creative military problem solving techniques. • Practice problem solving with a group and individually. • Enhance ability to quickly adapt to the changing environment (in stressful conditions, lack of time, discomfort). • Increase stress-resilience and provide techniques to improve stress management. • Train stress-management techniques in leadership (i.e. to manage stress in others).
---	---

Learning outcomes	Know- ledge	<ul style="list-style-type: none"> • Steps of the TLP and METT-TC analysis. • Sequences of orders. • Knowledge about necessary behaviour to improve leadership competences in stressful conditions. • Theoretical and practical knowledge about stress and stress management techniques.
	Skills	<ul style="list-style-type: none"> • Is capable of various decision making techniques in different tactical situations and changing environments as a leader. • Has the necessary organisational skills to organize different and various elements within his task organization as a leader. • Is able to lead unit's sub-elements in in different situations and environments. • Actively manages stress situations during long lasting burdens as a leader.
	Compe- tences	<ul style="list-style-type: none"> • Improvement of leadership profiles (sustainability, adaptability, decision-making ability, communication & organisational skills) in stressful conditions. • Is capable of making decision in an unpredictable, potentially life-threatening environment in stressful conditions. • Awareness of responsibility of subordinated human beings and their life as a leader.

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.

Module details		
Main Topic	Recommended WH	Details
Introduction	2	<ul style="list-style-type: none"> Introduction to the concept and structure of the module and an introduction to the theory of military leadership.
Leader's authority	2	<ul style="list-style-type: none"> 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.
Leader's communication	2	<ul style="list-style-type: none"> The lecture introduces the issue of communication of a military leader in a military environment.
Leader's authority and unit communication	2	<ul style="list-style-type: none"> Practical solution of model situations from the military environment - decision problems of a military leader.
Leadership in stress conditions	6	<ul style="list-style-type: none"> Theoretical lectures and practical exercises in the field of decision making in lack of time and discomfort environment.
Leadership combat psychology	2	<ul style="list-style-type: none"> Practical exercises is focused on moral dilemmas in military conflict.
Principles of TLP	4	<ul style="list-style-type: none"> 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.
Issue of order and reconnaissance	2	<ul style="list-style-type: none"> The lecture introduces the methods and principles of conducting command reconnaissance. The lecture introduces the methods and principles of issuing a combat order. Provides practical instructions for verbal communication with the unit.
Commander reconnaissance	4	<ul style="list-style-type: none"> Practical training in conducting command reconnaissance in the area of interest of future training. 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.
Issue of order	4	<ul style="list-style-type: none"> Practical execution of the issue of an order. Students perform the tasks of a platoon leader and are evaluated according to predetermined criteria.
Final exercise – virtual simulation training	6	<ul style="list-style-type: none"> Final exercise based on virtual simulation. Students perform the tasks of a platoon leader and are evaluated according to predetermined criteria.
Total lecture WH	36	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	0	<ul style="list-style-type: none"> On request only.
Total WH	36	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 CZ	Institution UoD	Common Module Defence Resources	ECTS 3
----------------------	---------------------------	---	-------------------------

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

<p>Prerequisites for international participants</p> <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. At least 1 year of national (military) higher education. Basic military training. 	<p align="center">Goal of the Module</p> <ul style="list-style-type: none"> To consolidate, extend and deepen knowledge of defence resources within international environment.
--	--

Learning outcomes	Know-ledge	<ul style="list-style-type: none"> Understanding key economic principles in defense, incl. relations to economic performance, public finance and labor market as well as essentials of economic analysis. Awareness of specification, classification and economic consequences of military expenditures and defense budgeting. Introduction to arms production and arms trade at national as well as international scene. Awareness of economic aspects of defense alliances. Understanding economic aspects of armed conflicts, their causes and direct as well as indirect economic impacts. 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.
	Skills	<ul style="list-style-type: none"> Ability to apply principles and instruments of economic analysis in defense secto. Ability to consider the main economic problems related to the security and defence field. Analyzing and interpreting data in defense economics.
	Compe-tences	<ul style="list-style-type: none"> Broadening critical thinking and application of essential research methods. Practicing team work in international environment. Practicing English language competences incl. specific defense economics related terminology.

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

economics		
Seminar project	6	<ul style="list-style-type: none"> • Elaboration/presentations/defense of team project reports
Total lecture WH	36	
Additional hours (WH) to increase the learning outcomes		
Self-Study	34	<ul style="list-style-type: none"> • Preparation for the upcoming lessons and for exam(s). • Reflection of the topics issued. • Elaboration of seminar project report, preparation of its presentation
Total WH	66	<ul style="list-style-type: none"> • 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 CZ	Institution UoD	Common Module Artillery Tactics	ECTS 3
----------------------	---------------------------	---	-------------------------

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

<p>Prerequisites for international participants</p> <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. At least 1 year of national (military) higher education. Basic military training. 	<p align="center">Goal of the Module</p> <ul style="list-style-type: none"> To consolidate, extend and deepen knowledge of artillery fire control and artillery tactics within international environment.
--	---

Learning outcomes	Knowledge	<ul style="list-style-type: none"> Discusses rules of shooting and fire control of ground artillery. Reproduces the foundations of the theory of shooting. Analyzes the possibility of firing artillery units. Presents conditions which affect the accuracy of fire. Classifies kinds of targets for artillery fire. Selects the method for determining the elements of fire and effect on targets. Masters the tactics, techniques and procedures (TTP) of artillery operations during various tasks. 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. Knows different approaches to artillery operations in various levels of degradation. Knows basic approaches to artillery manual gunnery and fire control systems. Knows basic aspects of artillery fire control. Knows all necessary requirements the artillery needs for its function in military operations. Knows characteristics of basic artillery assets (sensors, effectors and others). know basic approaches for airspace control in terms of ground and air deconfliction.
	Skills	<ul style="list-style-type: none"> Evaluate the possibility of firing of artillery units.

		<ul style="list-style-type: none"> • 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. • Determines the elements for fire of artillery units using funds established in the Czech Army. • Determines how to adjust the fire on targets. • Is able to draw tactical situation using NATO Joint military symbology according to APP-6(D). • Is able to conduct basic planning of artillery operations during Joint Fire Support integration. • Is able to choose best artillery assets for artillery support in terms of sensors and effectors. • Is able to manually calculate basic firing data for standard weapon systems.
	Compe- tences	<ul style="list-style-type: none"> • 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. • 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. • Understands the course of action of the artillery units to the artillery battalion echelon and takes the necessary initiative to contribute to its success. • Is capable of making decisions in an unpredictable, various and degraded operating environment. • Performs activities and roles specific to the teamwork on different responsibilities.

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

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

The simplified preparation	4	<ul style="list-style-type: none"> • Terms of Use • Principles of determining the values and ratios for artillery fire • Determining the elements for fire due to simplified preparation • Artillery commands • Determining the approximate corrections
Determining the elements for fire due to of substitute instruments	8	<ul style="list-style-type: none"> • The principles of using the kit PUO 9M • Plotting points and targets • Determination of target coordinates • Determining topographic elements • Diagram of corrections
Joint Military Symbology	4	<ul style="list-style-type: none"> • Introduction to military symbology • Land symbols (units, equipment) • Control measures symbology • JFS symbology
Joint Fire Support (JFS)	2	<ul style="list-style-type: none"> • Introduction to JFS • Artillery support description • Air support description • Naval gunfire support description
Artillery Support Assets	2	<ul style="list-style-type: none"> • Introduction to artillery support • Artillery effectors • Artillery sensors • Other assets
Artillery positioning	2	<ul style="list-style-type: none"> • Introduction to artillery positioning • Non-autonomous pieces positioning • Basics of autonomous navigation systems (INS/GPS/VMS) • Autonomous pieces and sensors positioning • Artillery Survey
Artillery in Offensive Operations	2	<ul style="list-style-type: none"> • Introduction to military offensive operations • Basic artillery tasks in offensive operations • Maneuver during offensive operations
Artillery in Defensive Operations	2	<ul style="list-style-type: none"> • Introduction to military defensive operations • Basic artillery tasks in defensive operations • Maneuver during defensive operations
Battlespace management	4	<ul style="list-style-type: none"> • Introduction to battlespace management (BM) • BM – Land • BM – Air
Total lecture WH	36	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	30	•
Total WH	66	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 CZ	Institution UoD	Non-common Module Selected Economics and Financial Risks	ECTS 3
----------------------	---------------------------	--	------------------

Service All	Minimum Qualification of Instructors <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3. Subject matter expert. Operational knowledge and experience.
Language English	

Prerequisites for international participants <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. At least 1 year of national (military) higher education. Basic military training. 	Goal of the Module <ul style="list-style-type: none"> To consolidate, extend and deepen knowledge of selected economics and financial risks within international environment.
---	---

Learning outcomes	Knowledge	<ul style="list-style-type: none"> Knowledge of capital market and currency markets as a prerequisite for managing economic and financial risks. Knowledge of basic types of economic and financial risks and their classification. 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. Knowledge of basic economic fundamentals and the area of financial management, laws, principles, relationships and links between related economic variables. Knowledge of analytical support in the field of financial decision-making and prevention of financial risks. Knowledge of the principles of economic, financial and risk management in the organization of the public sector.
	Skills	<ul style="list-style-type: none"> Identify, appropriately classify and prioritize economic and financial risks in the financial management of the organization. Using the acquired knowledge, the ability to critically evaluate selected economic contexts from the perspective of risk management. Ability to create analytical, informational and evaluation support to the superior element within the job / job classification in the field of financial management. Skills necessary for the preparation and implementation of financial decisions and evaluation of their economic impact. 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.
	Competences	<ul style="list-style-type: none"> Respecting basic economic laws and inferring under conditions of real

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.
Total lecture WH	30	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	36	<ul style="list-style-type: none"> • Work on a project • Preparation for seminars tasks • Project consultation
Total WH	66	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 CZ	Institution UoD	Non-common Module Subversive Threats	ECTS 3
----------------------	---------------------------	--	------------------

Service All	Minimum Qualification of Instructors <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3. Subject matter expert. Operational knowledge and experience.
Language English	

Prerequisites for international participants <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. At least 1 year of national (military) higher education. Basic military training. 	Goal of the Module <ul style="list-style-type: none"> To consolidate, extend and deepen knowledge of subversive threats within international environment.
---	---

Learning outcomes	Know-ledge	<ul style="list-style-type: none"> Familiarity with different categories of subversive threats and their manifestation.
	Skills	<ul style="list-style-type: none"> Ability to recognize subversive activities. Ability to recognize radical and extremist narratives and behaviour in society. Safe behaviour in cyber space.
	Compe-tences	<ul style="list-style-type: none"> Critical thinking

<p style="text-align: center;">Verification of learning outcomes:</p> <ul style="list-style-type: none"> Observation: active participation in seminars (20% of evaluation) Test: written final test (80% of evaluation)
--

Module details		
Main Topic	Recom-mended WH	Details

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

Service All	Minimum Qualification of Instructors <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3. Subject matter expert. Operational knowledge and experience.
Language English	

Prerequisites for international participants <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. Mathematics: Basic knowledge of calculus and computer science fundamentals. 	Goal of the Module <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>
--	---

Learning outcomes	Know-ledge	<ul style="list-style-type: none"> Student identifies the basic methods of descriptive and inductive statistics, methods of collecting real data and the creation of data files for statistical analysis.
	Skills	<ul style="list-style-type: none"> Student applies the basic methods of descriptive and inductive statistics, methods of collecting real data and the creation of data files for statistical analysis.
	Compe- tences	<ul style="list-style-type: none"> Student is able to actively utilize and interpret the results of these methods.

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

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

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

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

<p>Prerequisites for international participants</p> <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. Mathematics: Basic knowledge of calculus and linear algebra. 	<p>Goal of the Module</p> <ul style="list-style-type: none"> To consolidate, extend and deepen knowledge of operational research. 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). To deepen knowledge of mathematical tools needed to solve selected optimization problems.
--	--

Learning outcomes	Know-ledge	<ul style="list-style-type: none"> Students will: <ul style="list-style-type: none"> understand the grounds of common types of optimization problems; be able to identify and formulate specific optimization problems; understand the principles and functioning of basic methods for solving optimization problems.
	Skills	<ul style="list-style-type: none"> Students will master mathematical tools needed for solving common types of optimization problems (namely linear programming problems, multi-criteria decision making and matrix games). Students will be able to <ul style="list-style-type: none"> choose and apply the appropriate algorithm for solving a given optimization problem; find the optimal solution(s) to a problem; interpret the results.
	Compe- tences	<ul style="list-style-type: none"> Students will be familiarized with common real-life and professional optimization problems and methods for their solving. Students will be able to solve (basic) practical optimization problems using software (MS Excel, LiPS, online calculators).

<p>Verification of learning outcomes:</p> <ul style="list-style-type: none"> Observation: 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. Test: The module is concluded by a written final exam which will cover the topics explained throughout the semester.

Module details		
Main Topic	Recommended WH	Details
Introduction to Linear Programming (LP)	4	<ul style="list-style-type: none"> LP formulations, types of LP problems Mathematical grounds for solving LP problems
Graphical Method for Solving LP Problems	4	<ul style="list-style-type: none"> Finding the optimal solution to a LP problem using Graphical Method
Simplex Method and Two-phase Method	8	<ul style="list-style-type: none"> Simplex algorithm for solving LP problems Two-phase Method
Duality in LP Problems	4	<ul style="list-style-type: none"> Primal and dual LP problems Dual simplex algorithm
Transportation Problem	8	<ul style="list-style-type: none"> Finding the optimal solution to a balanced transportation problem (Vogel's Approximation Method) Unbalanced transportation problem
Assignment Problem	4	<ul style="list-style-type: none"> Finding the optimal solution to an assignment problem (the Hungarian Method)
Multi-criteria Decision Making	4	<ul style="list-style-type: none"> Decision matrix Graphical Method, Weighted Sum Method
Multi-objective Linear Programming (MOLP)	8	<ul style="list-style-type: none"> Formulation of a MOLP problem Lexicographic Method, Weighted Aggregation of the Objectives Method Goal Programming
Introduction to Matrix Games	8	<ul style="list-style-type: none"> Solving matrix games with saddle point Finding the optimal solution to matrix games without saddle point Special types of matrix games without saddle point (2×2, $2 \times n$, $m \times 2$)
Solving Matrix Games as LP Problems	4	<ul style="list-style-type: none"> Transformation of a matrix game into a LP problem
Total lecture WH	56	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	56	<ul style="list-style-type: none"> Homework, preparation for seminars. Preparation for tests and final exam.
Total WH	112	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 CZ	Institution UoD	Common Module Military Engineering	ECTS 3
----------------------	---------------------------	--	------------------

Service All	Minimum Qualification of Instructors <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B2 or NATO STANAG 6001 Level 3. Subject matter expert. Operational knowledge and experience.
Language English	

Prerequisites for international participants <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. At least 1 year of national (military) higher education. Basic military training. 	Goal of the Module <ul style="list-style-type: none"> To provide overview of military engineering on tactical and operational level. To introduce MILENG doctrinal system To make students able to use gained information in the mutual context. To enhance ability to understand engineer matters among other types of military forces and services.
---	--

Learning outcomes	Know-ledge	<ul style="list-style-type: none"> Knows the hierarchy of key engineer policies and doctrines Is equipped with knowledge of military engineering roles, tasks and measures
	Skills	<ul style="list-style-type: none"> Can use NATO MILENG doctrines for engineer tasks understanding Leads negotiations with military personnel related to military engineering Is able to use knowledge of MILENG to cooperate with military organisations Taking in account MILENG matters during decision making process
	Compe- tences	<ul style="list-style-type: none"> Is capable to find doctrines and STANAGS in online NATO library Can use mind maps to resolve problems connected to decision making

Verification of learning outcomes: <ul style="list-style-type: none"> Observation: During the course students elaborate mind maps to understand context of engineer measures and engineer doctrines. It helps them to take in account all aspects of military engineering activities including engineer subsystem of command. Presentation: All mind maps elaborated by students are presented on the final colloquium.
--

Module details		
Main Topic	Recom- mended WH	Details
Military Committee Policy for Military Engineering (ME). Principles and significance.	2	<ul style="list-style-type: none"> Introduction to the subject Requirements to the credit specification Main operational and engineer terms and definitions Operational functions and their engineer support Military Committee Policy for Military Engineering

		<ul style="list-style-type: none"> • Main rules of military engineering on the strategic level
MC 0560/1 document studying, results creation;	4	<ul style="list-style-type: none"> • Document studying • Elaboration of mind map illustrating context of main document ideas
STANAG 2238, AJP 3.12 Allied Doctrine for Military Engineering. Principles and fundamentals.	2	<ul style="list-style-type: none"> • NATO doctrinal system • Doctrines related to engineer support • Gaining doctrinal resources from NATO sites • AJP 3.12 Allied Doctrine for Military Engineering • Military engineering measures on the operational level • Command and control MILENG sub-system on the operational level
AJP 3.12 document studying, results creation	6	<ul style="list-style-type: none"> • Document studying • Elaboration of mind map illustrating context of main document ideas • Elaborating mind map illustrating context to previous document
STANAG 2394, ATP-3.12.1 Allied Tactical Doctrine for Military Engineering. Principles and fundamentals.	2	<ul style="list-style-type: none"> • Main engineer tasks and measures fulfilled on the tactical level • Command and control MILENG sub-system on the tactical level • ATP-3.12.1 Allied Tactical Doctrine for Military Engineering
ATP-3.12.1 document studying, results creation	8	<ul style="list-style-type: none"> • Document studying • Elaboration of mind map illustrating context of main document ideas • Elaborating mind map illustrating context to previous documents
Elaboration of the term credit work	8	<ul style="list-style-type: none"> • Finalization of mind maps • Elaboration of presentations
Elaboration and vindication of the term credit work. Final colloquium and student's presentation.	2	<ul style="list-style-type: none"> • Presentation of mind maps elaborated during term lessons • Topic discussion • Conclusion formulation
Total lecture WH	36	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	30	<ul style="list-style-type: none"> • Study of related and supporting documents • Language skills improvement • Preparation for the upcoming lessons
Total WH	66	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 CZ	Institution UoD	Common Module Environmental Security	ECTS 3
----------------------	---------------------------	--	------------------

Service All	<p style="text-align: center;">Minimum Qualification of Instructors</p> <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG 6001 Level 2. Subject matter expert.
Language English	

<p>Prerequisites for international participants</p> <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. Good presentation and communication skills. 	<p style="text-align: center;">Goal of the Module</p> <ul style="list-style-type: none"> To consolidate, extend and deepen knowledge of environmental security within international environment.
---	--

Learning outcomes	Know-ledge	<ul style="list-style-type: none"> The aim of the subject is to get the students acquainted with general and specific principles of the environmental security and its establishment on global, regional and local levels. The subject broadens students' knowledge in the area of sustainable development and regional security with focus on global environmental threats, technological and security risks from the viewpoint of their prevention, management and institutional support. The students will understand the system of the environmental security in an international and national context. Students are familiar with trends in global environmental threats and aspects of environmental security.
	Skills	<ul style="list-style-type: none"> Students can apply their knowledge of security in broader context of the environmental security.
	Compe-tences	<ul style="list-style-type: none"> Students are able to use their knowledge and skills in decision-making process.

Verification of learning outcomes:
<ul style="list-style-type: none"> Observation: Throughout the module, students will discuss given topics. During these activities students will be evaluated to verify their competences. Test: Individual presentation(s) during the module. The type of test is up to the course director. If needed, more tests, seminar paper and different cases may be conducted during the module.

Module details		
Main Topic	Recommended WH	Details
Relationship between environment and security	2	<ul style="list-style-type: none"> environmental security – history, definition and topics
Global environmental threats (climate change, overpopulation, biodiversity loss, air, land, water)	10	<ul style="list-style-type: none"> contemporary global threats and their impacts
Resource security	4	<ul style="list-style-type: none"> aspects of environmental security dealing with raw materials and other non-energy resources trends in resource security of European countries raw material import into the EU
Energy security	4	<ul style="list-style-type: none"> aspects of national energy security and renewable energy sources trends in the energy security of European countries
Food security	4	<ul style="list-style-type: none"> aspects of food security in the context of environmental security
Environmental migration	4	<ul style="list-style-type: none"> definition of environmental migration difference between migrant and refugee
Terrorism and crime with environmental impacts	4	<ul style="list-style-type: none"> ecoterrorism, environmental terrorism CITES organized crime connected to wildlife
Current state of environmental security	2	<ul style="list-style-type: none"> contemporary situation of environment in European countries
Credit exercise	2	<ul style="list-style-type: none"> final test
Total lecture WH	36	
Additional hours (WH) to increase the learning outcomes		
Self-Studies	39	<ul style="list-style-type: none"> Preparation for the upcoming lessons and tests Reflection of the topics issued.
Total WH	75	The detailed number 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

	Vice Dean for Public Relations and Development	Vice Dean for Curriculum	Faculty Erasmus+ Coordinator
	Jana Švecová	Jakub Odehnal	Jana Pracná
E-mail:	jana.svecova@unob.cz	jakub.odehnal@unob.cz	jana.pracna@unob.cz
Phone:	+420 973 443 705	+420 976 443 809	+420 973 443 747
	FACULTY OF MILITARY LEADERSHIP		
Address:	University of Defence Kounicova 65 662 10 Brno Czech Republic		
Web:	https://www.unob.cz/en/fml/Pages/default.aspx		

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 2024/2025

Semester	2023/2024												Winter semester 2024/2025												Spring semester 2024/2025												Semester																				
Year	2024																								2025												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: 1px solid black; padding: 5px; background-color: #d3d3d3;"> <div style="background-color: #4682b4; color: white; padding: 2px; text-align: center; font-weight: bold;">International semester</div> <div style="display: flex; justify-content: space-around; border-top: 1px solid black; border-bottom: 1px solid black;"> <div style="background-color: #add8e6; padding: 2px; text-align: center;">Classes</div> <div style="background-color: #f08080; padding: 2px; text-align: center;">Exams</div> </div> <div style="display: flex; justify-content: space-around; padding: 2px;"> <div style="background-color: #ffff00; padding: 2px; text-align: center;">B</div> <div style="background-color: #ffff00; padding: 2px; text-align: center;">C</div> <div style="background-color: #ffff00; padding: 2px; text-align: center;">D</div> <div style="background-color: #ffff00; padding: 2px; text-align: center;">D</div> </div> <div style="display: flex; justify-content: space-around; padding: 2px;"> <div style="background-color: #d3d3d3; padding: 2px; text-align: center;">E</div> <div style="background-color: #d3d3d3; padding: 2px; text-align: center;">E</div> <div style="background-color: #d3d3d3; padding: 2px; text-align: center;">F</div> <div style="background-color: #d3d3d3; padding: 2px; text-align: center;">G</div> <div style="background-color: #008000; padding: 2px; text-align: center;">I</div> <div style="background-color: #d3d3d3; padding: 2px; text-align: center;">H</div> </div> </div>																								Erasmus+																																
Other																									Other																																
Year																									2024												2025												Year								

- A Nomination and paperwork deadline for spring semester 2024/2025
- B Admin day on 24 March
- C International day on 1 April
- D Trip day on 22 April and 3 June
- E Day off on 18 April and 21 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 23 to 25 May