

## Course Outline

Course number	RBM104				
Course title	<b>Civil Protection and Environmental Sustainability</b>				
Credit points	3 ECTS				
Total hours	32				
Lecture hours	23				
Seminar and other hours	9				
Course level	Bachelor				
Prerequisites	English language B2				
Category	<b>Mandatory</b>	<b>X</b>	Restricted elective	Free elective	

### COURSE RESPONSIBLE

<i>Name</i>	<i>Academic degree</i>	<i>Academic position</i>
Romualds Ražuks	Dr. med.	Visiting assistant professor
Juris Burlakovs	Dr. geog.	Visiting tenured professor

### COURSE ABSTRACT

**Course will be divided into two parts.**

#### Part 1. Civil protection

First part of the course will examine the role of Civil Protection system in Latvia (as in framework of the EU and NATO), its organization and management structure, and main tasks of the system's subjects. The course explores the disaster management principles and planning aspects, analyses the legal and practical measures of cooperation among state, local government and other stakeholders during disaster situations. Course gives an insight on possible daily dangerous situations and threats, considers and provides safe behaviour principles and actions during such situations. Course ensures that students obtain general knowledge on disaster medical system and the role and practical implication of the first aid.

#### Part 2. Environmental Science and Sustainability

Second part of the course will be dedicated to Environmental Science and Sustainability is multidisciplinary and focuses on the sustainable concepts of Environment, Natural Processes in frame of Circular Economy & Technology. Materials and energy in nature and industry transform in cyclic way by human actions and this course provides moderate to advanced understanding of various processes of these transformations from the perspectives of the environment and sustainability. The course additionally contains actual discussions on sustainable natural ecosystems and their valuation as well as environmental management important for decision makers, authorities, lawyers and business people. This course is giving the wider perspective how society is changing the attitudes and shifting the process from linear (open loop) systems (production-product-waste) to closed loop circular economy system or 'beyond the zero waste system' where wastes become inputs for new processes and so on. Significant part of the course is devoted to Environmental Health and Legislation.

## **COURSE OBJECTIVES**

### **Knowledge:**

#### **Part 1. Civil protection**

- Understanding the functioning of the Civil Protection system and the tasks and responsibilities of its subjects.
- Understanding the types of disasters, as well as dangerous natural and man-made objects in the territory of Latvia and near its borders.
- Knowledge of the basic principles of First Aid and its role in case of disaster.

#### **Part 2. Environmental Science and Sustainability**

- Provide students theory, analytical methodology and practical challenges in the field of environmental science and sustainability.
- Provide knowledge on material flows and recycling, understanding of processes of environmental assessment, material and energy flow analysis, life cycle analysis, multi-criteria assessment, cost benefit and eco-efficiency analysis as well as legislation issues from the experience of different countries.
- Resources future depletion and economic crises will be analysed in light of rising circular economy approach versus linear economy.

### **Skills:**

#### **Part 1. Civil protection**

- Ability to respond appropriately to daily situations of potential danger and their consequences, by selecting the possible actions of the plan in such situations.
- Understanding of the signals of Early Notification System of disaster.
- Ability to deal with the organizational and practical aspects of First Aid.
- Readiness to instruct and lead the people in disaster situations.

#### **Part 2. Environmental Science and Sustainability**

- Simple practical skills to plan resources optimization and waste reduction, ecomapping, ecosystems valuation and ecological feet calculation will be gained. Course alumni will be able to discuss environmental legislation problems based on multinational experience.
- Further communication skills of practical environmental management and labor protection knowledge for the general public, representatives of related industries, journalists, politicians and other public administrators will be acquired.
- Students will be introduced how to train abilities to present environmental and sustainable development problems, including knowledge of the circular economy in various formats and critically evaluate the information presented in the media.

### **Competences:**

#### **Part 1. Civil protection**

- Safe behaviour at emergency situation depending on its nature and type.
- Professional targetted operation in disaster situations in accordance with the Emergency Plan under the direction of the Emergency Response Center.
- First aid provision at a disaster site for various types of damage and their combinations.

#### **Part 2. Environmental Science and Sustainability**

- Competence based learning includes international Law Casus analyses and work with environmental consultancy documents that are compulsory for companies to meet environmental legislation in practice.

- During the seminars, knowledge and skills will train competences necessary for future business work as well as ability to understand the principles of environment and sustainable development needed for enterprise and local government administration work performance

## **COURSE REQUIREMENTS**

### **Part 1. Civil protection**

For the completion of this part of the course it is required the acquisition of a rating – “pass” or “fail” at a written test and at the First Aid workshops. Test consists of 20 questions. Test is being passed in case 70% of the total questions have been answered correctly. The total rating incorporates the student’s general attitude and participation – attendance, participation in workshops and attend First Aid workshops.

### **GRADING CRITERIA**

<b>Criteria</b>	<b>Weighting</b>
1. Written test (consists of 20 questions)	25%
2. Practical evaluation of skills acquired at First Aid workshops	25%

### **Part 2. . Environmental Science and Sustainability**

For successful acquirement of this part of the course it is required the acquisition of a rating – “pass” or “fail”. Evaluation is either positive (pass) or negative (negative). 2 assignments (group work) should be submitted and defended during seminars – these seminars include practical use of knowledge and skills gained during lectures as personal training process. Students who do not pass or submit the two assignments at the end of this part of the course will be required to take a written test consisting of five questions, with open access to study material.

<b>Criteria</b>	<b>Weighting</b>
1. Course assignments 2 units or	50% (25+25%)
2. Written test (consists of 5 questions)	

## COURSE PLAN – MAIN SUBJECTS

<b>No.</b>	<b>Main subjects</b>	<b>Planned hours</b>
	<b>Part 1. Civil protection</b>	
1.	Civil protection system in Latvia. Disaster management, planning and implementation measures.	1 x 45 min
2	Potential disasters and their consequences	2 x 45 min
3	Early warning and notification system. The role of the media in emergencies and disasters.	1 x 45 min
4	Context of civil protection in European Union and NATO, procedures of receiving and requesting humanitarian assistance.	2 x 45 min
5	Planning of civil protection in local governments, merchants and institutions	2 x 45 min
6	Procedures and behaviour in case of fire and evacuation procedures.	2 x 45 min
7	Requirement of classification, storage and shipping of dangerous chemical goods and their mixtures.	2 x 45 min
8	Written Test	
9	Introduction to the first aid Disaster relief operations (action scheme, emergency calls).	1 x 45 min
10	Adult Basic life support algorithm (BLS) scheme, BLS practical demonstration. Algorithm of cardiopulmonary resuscitation.	1 x 45 min
11	First aid in special situations.	1 x 45 min
12	Practical evaluation of skills acquired at First Aid workshops	1 x 45 min
	<b>Part 2. Environmental Science and Sustainability</b>	
13	Environmental science and Sustainability – The Introduction	2 x 45 min
14	Energy and Climate Change	4 x 45 min
15	Resources, Depletion and Circular economy approach	2 x 45 min
16	Environmental Legislation and Decision Analysis	2 x 45 min
17	Environmental Pollution, Revitalization and Health	2 x 45 min
18	Circular Economy and Global Economic Cycles	4 x 45 min
	Written Test	