



## RTU Course "Transport Ecology"

15E04 Transporta sistēmu un loģistikas katedra

### General data

Code	TAE529
Course title	Transport Ecology
Course status in the programme	Compulsory/Courses of Limited Choice
Course level	Post-graduate Studies
Course type	Professional
Field of study	Transport
Responsible instructor	Šestakovs Vladimirs
Volume of the course: parts and credits points	1 part, 3.0 Credit Points, 4.5 ECTS credits
Language of instruction	LV, EN, RU
Possibility of distance learning	Not planned
Abstract	Ecological and environmental definitions. Impacts of transport on the environment (biosphere). Regulations. Environmental protection principles and research methods to reduce transportation pollution. International requirements for pollution levels. Control methods. Systems and equipment to reduce pollution levels. Transport company's ecological passport and other environmental documentation. Environmental-economic aspects. Responsibility for environmental contamination.
Goals and objectives of the course in terms of competences and skills	The aim is to study unfavorable ecological factors. Ecological characteristics of air transport. Managing ecological impact of transport companies: principles, methods. Environmental documentation. Environment, insurance, licensing. Ecological expertise.
Structure and tasks of independent studies	Study of literature, homeworks on normative documents. Laboratory work report and presentation preparation.
Recommended literature	1. V. Šestakovs. Lekciju konspekts un metodiskie norādījumi kontroldarbam MĀCĪBU PRIEKŠMETĀ „Transporta plūsmu ekoloģija”, RTU RĪGA, 2004. 2. Павлова Е. Экология транспорта. Москва: Транспорт. 1998, 380 стр. 3. Определение загрязнения воздуха выхлопными газами. Методические указания к лабораторным работам. Составитель Гредин В., Каталевский Ю., Рига: РАУ. 1998, 40 стр. 4. International Safety Management Code, JMO 1993. 5. International Standard of Environment Quality. ISO - 14001. 1996. 6. Noteikumi par kārtību kādā gaisakuģī un to dzinēji atzīstami par atbilstošiem vides aizsardzības normām. Rīga: CAA, 1994.
Course prerequisites	Aircrafts and engines of civil aircraft.

### Course outline

Theme	Hours
Ecology, ecosystem, natural resources, environment, urban environment.	4
Biosphere: the structure, components and characteristics.	4
Unfavorable environmental factors. Classification.	4
Generalized and private unfavorable ecological factors.	4
Living organisms and their response to the effects of AEF. Anthropogenic factors.	4
Transport system and the Biosphere. Vehicle ecological validity. Expected operating rules.	4
Ecological characteristics of air transportation. Harmful emissions to the atmosphere.	4
Control and accountability of environmental law infringement. Ecological planning and financing.	4
Practical work.	8
Laboratory work.	8

### Learning outcomes and assessment

Learning outcomes	Assessment methods
A student is able to give ecological characteristic of air transport.	Practical works, laboratory works, homework, exam.
A student is able to analyze ecological documentation.	Practical works, laboratory works, homework, exam. Criteria: Ability to analyze ecological documentation.

### Study subject structure

Part	CP	ECTS	Hours per Week			Tests		
			Lectures	Practical	Lab.	Test	Exam	Work
1.	3.0	4.5	2.0	0.5	0.5		*	