



VILNIAUS GEDIMINO  
TECHNIKOS UNIVERSITETAS

**TEMPUS PROMENG meeting**  
**April 2012, Berlin**

**prof. S.Vasarevicius**



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## Environmental Management and Engineering 5 courses

- 1) Course title Atmosphere controlling and protection
- 2) Course title Environmental management
- 3) Course title Environment Policy, Law and Economy
- 4) Course title Environmental technologies
- 5) Course title Environmental impact assessment



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## Training courses, 20 May – 2 June 2012, Vilnius Time shedule

**Sunday 20 May.** Participants arrival in Vilnius

**Monday 21 May.** Opening of TEMPUS PROMENG training courses and participants meeting

**Tuesday 22 May**

- \* Presentation of scientific research projects in the field of air cleaning technologies
- \* Presentation of scientific research projects in the field of physical environmental pollution
- \* Presentation of scientific research projects in the field of waste management

**Wednesday 23 May**

- \* Presentation of lectures, exercises and practical tasks of module “Environmental Impact assessment”
- \* Presentation and overview of environmental technologys in Department of Environmental Protection and Research Institute of Environmental Protection

**Thursday 24 May**

Practical trip to Karijotiškės and Kazokiškės landfills, Lithuanian Power Plant, Vilnius waste water treatment plant

**Friday 25 May**

Individual work (prepare/writing draft-thesis of a new teaching materials, handbooks, syllabi)

**Saturday 26 May.** Excursion

**Sunday 27 May.** Free Time

**Monday 28 May**

- \* Presentation of lectures, exercises and practical tasks of module “Environmental Management“
- \* Presentation of lectures, exercises and practical tasks of module „*Environment Policy, Law and Economy*“



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**Sunday 20 May.** Participants arrival in Vilnius

**Monday 21 May.** Opening of TEMPUS PROMENG training courses and participants meeting

**Tuesday 29 May**

Individual work (prepare/writing draft-thesis of a new teaching materials, handbooks, syllabi)

**Wednesday 30 May**

- \* Presentation of lectures, exercises and practical tasks of module „*Environmental technologies*“
- \* Presentation of lectures, exercises and practical tasks of module „Atmosphere Controlling and Protection“

**Thursday 31 May**

- \* Environmental tasks solution possibilities using software packages of *Phoenics* and *ADMS 4*
- \* Presentation and overview of new equipment: Mobile laboratory of Environmental Protection Research institute and Laboratory of building energy and climate systems

**Friday 1 June**

- \* Presentations of draft-thesis of a new teaching materials, handbooks, syllabi)
- \* Closing of TEMPUS PROMENG training courses and results discussion

**Saturday 2 June**

Departure of participants

*Location of accommodation of the participants at the hotel  
„Ecotel Vilnius“ [www.ecotel.lt](http://www.ecotel.lt) (Slucko str8).*



# What is ECTS?

*ECTS - The European credit transfer and accumulation system is a student-centred system based on the student workload required to achieve the objectives of a programme, objectives preferably specified in terms of the learning outcomes and competences to be acquired.*

The three main ways/approaches of ECTS credit introduction at national level :

1. Legal ;
2. Consensus-based;
3. Recommendation-based.

# The main ECST elements

ECTS requires to use new elements in approach to study programmes design:

1. student workload;
2. learning outcomes and competences;
3. use of ECTS credits.



# 1. Student workload

Student workload in ECTS consists of the time required to complete all planned learning activities such as attending lectures, seminars, independent and private study, preparation of projects, examinations, and so forth.

## 2. Competences and learning outcomes

Competences - dynamic combination of cognitive and metacognitive skills, knowledge and understanding, interpersonal, intellectual and practical skills, ethical values and attitudes.

Learning outcomes - statements of what a learner is expected to know, understand and be able to do after successful completion of a process of learning.

(ECTS Users" guide, 2009)





## 3. The use of ECTS

1. Credits are allocated to all educational components of a study programme (such as modules, courses, placements, dissertation work, etc.) and reflect the quantity of work each component requires to achieve its specific objectives. Student workload in this context is a very important notion.
2. Credit may be allocated to all types of study programmes, irrespective of their length, composition or nature. Programmes may consist of year-long modules (depending on a notion of modules used) or shorter courses. They may cover work placements and research. They may be first, second or third cycle. Credits can also be used for stand-alone courses offered to learners not engaged in a full cycle programme of study.
3. Credits in ECTS can only be obtained after successful completion of the work required and appropriate assessment of the learning outcomes achieved.

# Challenges for HEI

## Learning outcomes

- Confusion between competences and LO
- Lack of skills in formulating LO
- Problems of translating the term and using appropriate language

## Workload

- There is no tradition to calculate workload and consult students – time and activities do not match
- Organization of teaching and learning still teacher centred

## Credits

- No credit thinking in the country and most of the institutions
- Credits are not seen as a tool for programme design
- Limited use of credits to measure student progress (R. Markeviciene)



# VGTU case

1. Hours range/academic year: 1600 h
2. Status of the proclamation: Law and decree
3. Scope of studies in Lithuania is measured in credits.
4. 40 hours of study (in classrooms, laboratories, self and others.), it its one working week, or = 1.5 ECTS

**5. 1 ECTS = 26, 67 h**

6. The average one-year full-time study scope is 60 ECTS (From 2011). Non-modularized system - each course unit can have a different number of credits although the total number for one year - 60 ECTS.
7. VGTU total number of credits for Masters (2 years) – in the range between 90-120 ECTS. In the Faculty of Environmental Engineering – 112 ECTS.
8. VGTU total number of credits for Bachelors (4 years) – 240 ECTS.



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# Detailed information:

1. ECTS Users' Guide European credit transfer and accumulation system (ECTS)  
[http://ec.europa.eu/education/lifelong-learning-policy/doc/ects/guide\\_en.pdf](http://ec.europa.eu/education/lifelong-learning-policy/doc/ects/guide_en.pdf)
2. European credit transfer and accumulation system (ECTS)  
[http://ec.europa.eu/dgs/education\\_culture/publ/pdf/ects/en.pdf](http://ec.europa.eu/dgs/education_culture/publ/pdf/ects/en.pdf)
3. The ECTS system <http://www.studyineurope.eu/ects-system>
4. Calculating and measuring student workload and a method to allocate workload (StOEHN)  
[http://www.stoehn.fh-aachen.de/uploads/media/Workload\\_tuning.pdf](http://www.stoehn.fh-aachen.de/uploads/media/Workload_tuning.pdf) *and etc.*