

### General Information:

<b>Name of Course:</b>	<b>ENGINEERING PRACTICE IN THE EU</b>
<b>Course Code:</b>	PMKMENE140A
<b>Semester:</b>	2 <sup>th</sup>
<b>Number of Credits:</b>	2
<b>Allotment of Hours per Week:</b>	2 Lessons /Week
<b>Evaluation:</b>	Practical Mark
<b>Prerequisites:</b>	

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### Introduction, Learning Outcomes:

The aim of the course is to introduce students to the system of professional engineering licences, the role and operation of the chambers of commerce and professional associations, the forms and possibilities of training and further education through examples from different countries.

In the semester students should also make a presentation about the engineering licences, the role and operation of the chambers of commerce and professional associations in their own country. A discussion is planned comparing the different tools and methods applied in the different countries and in Hungary.

Students should make semester task. The semester task is going to be about to prove the understanding the European norms and be able to use the learned materials in practice. Since during the semester they are going to make presentations about the institutions and practice of their own country, at the end of the course they should be able to write paper about EU related topics, that have been thought but also to make detailed research about the selected topics. The topic of the final paper will combine the practice and the theoretical/institutional background as well. The list of the titles will be presented at the end of the semester.

### General Course Description and Main Content:

#### Course content:

A brief history of the EU, the institutional system of education in the EU, training policies. Opportunities for engineering education and further education inside and outside EU countries. The dual training system in higher education. The recognition of academic qualifications and degrees. Regulation and licensure in engineering. The role and operation of the chambers of commerce, the system of traineeship, chamber membership.

- International Engineering Technologist Agreement.
- Graduate Attributes and Professional Competencies.

### Methodology:

The course is based partly on lectures with ppt presentations and partly on student's presentations, consultations and discussions.

### **Schedule:**

Two lessons per week.

The rough outline of the schedule is as follows:

Week 1: The history and development of the European integration 1945-1956: from the European Coal and Steel Community (ECSC) to the European Economic Community (EEC)

Week 2: Lecture. The history and development of the European integration 1957-2015: from the European Economic Community (EEC) to the European Union (EU) and beyond

Week 3: Lecture. European Council of Civil Engineers (ECCE) – An introduction to the civil engineering profession in Europe (members, committees, aims)

Week 4: Lecture. Review of the civil engineering profession in Europe from education to professional practice

Week 5: Lecture. How the EU works: tasks and responsibilities of institutions and bodies, common policies and coordination of national interests

Week 6: Establishment, objectives and tasks of the engineering associations in Europe and outside of Europe (institutions related with the EU legislations and institutions)

Week 7: Decision making in the European Union and the so-called democratic deficit

Week 8: Lecture. Student's presentations and discussion: comparative studies about the engineering practice, legislative and institutional background of the EU countries and the home countries of the students

### **Week 9: Autumn holiday**

Week 10: Lecture. EU laws and regulations related to the activities of civil engineers (Eurocode standards, FEANI and the European Engineers)

Week 11: Lecture. Preparation of projects eligible to be co-financed by the EU: Project Management Cycle, public procurement and tendering

Week 12: Lecture. Coordinated development of the infrastructure of international interest – the Trans European Networks (energy, telecommunication and transport): opportunities for civil engineers

Week 13: Lecture. Research and development in the EU; accessibility and dissemination of professional knowledge, the activities of universities and international organizations

Week 14: Lecture. Course assignment (deadline of the papers)

Week 15: Lecture. Course assignment (discussion and evaluation of the papers)

### **Studio Culture:**

The course is based on lectures and on collaboration, participation and discussions of practical tasks. This is an interaction between Students and Faculty; used the teaching methods like "Problem-based learning".

The presentations going to be available at the NEPTUN educational system.

**Attendance:**

Active attendance is required on all classes, and will impact the grade (max. 30%). Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lessons will be grounds for failing the class.

**Evaluation + Grading**

Grading will follow the course structure with the following weight:

- Presentation: 35%
- Semester task: 35%
- Participation-activity 30%.

The final grade will be based on the following guidelines:

Grading Scale:

Numeric Grade:	5	4	3	2	1
Evaluation in points:	89%-100%	77%-88%	66%-76%	55%-645%	0-54%

**PTE Grading Policy:**

Information on PTE's grading policy can be found at the following location: <http://www.mik.pte.hu/en/>

**Readings and Reference Materials:**

Compulsory course material:

- How the European Union works (European Commission, 2014)

Recommended course materials:

- [http://ec.europa.eu/internal\\_market/qualifications/docs/guide/users\\_guide\\_en.pdf](http://ec.europa.eu/internal_market/qualifications/docs/guide/users_guide_en.pdf)
- 2005/36 EC on the Mutual Recognition of Professional Qualifications
- [http://europa.eu/legislation\\_summaries/internal\\_market/living\\_and\\_working\\_in\\_the\\_internal\\_market/c11065\\_en.htm](http://europa.eu/legislation_summaries/internal_market/living_and_working_in_the_internal_market/c11065_en.htm)