Subject name	**Forest Site Science**	
Subject code	**E.2.FSS.SC.ECTIE.L**	
Department	**Department of Forest Soil, Institute of Ecology and Silviculture**	
Faculty	**Forestry**	
Subject supervisor/Lecturer	**Dr. Ewa Błońska, Dr. Jarosław Lasota,**	
General information	**semester**	**summer**
	ECTS credits	**3**
	Lectures total	**14 hours**
	Laboratories/classes	**10 hours**
	Field exercises	**14 hours**
Objective and general description	The aim of the course is to teach the students evaluation of lowland, upland and mountain forest sites and adjust species composition to the site conditions. Combination of laboratory and field classes and lectures allow students to learn the variability of geological conditions, geomorphological and soil conditions affecting the life of the trees. Additionally, student learn identify the distorted forest sites and use of modern methods for sites diagnosis. **Lectures (7 x 2hours)** 1. The role of soil in the diagnosis of lowland habitats. The relationship of parent material, soil types, water, and humus types with site types on lowland areas. Forest stand and vegetation as indicators of fertility lowland sites. 2. The factors affecting the sites of upland areas. 3. The role of soil and climate in the formation of mountain sites. 4. Soil causes of sites variability in the forests little changed by human activity and forests under the influence of the industry. 5. The biological properties of soils in the classification of forest sites. The impact of industry on the soil biological activity. 6. The relationship between site types and forest plant communities and their use in mapping of sites. Mapping of sites in the Natura 2000 program. 7. New trends in the diagnosis of forests sites **Classes (5 x 2hours)** 1. Identifying of lowland sites on the basis of descriptive material, soil profiles and photographs (Soil Education Centre - Soil Museum). 2. Identifying of lowland sites on the basis of descriptive material, soil profiles and photographs (Soil Education Centre - Soil Museum). 3. Identifying of upland sites on the basis of descriptive material, soil profiles and photographs (Soil Education Centre - Soil Museum). 4. Identifying of mountain site on the basis of descriptive material, soil profiles and photographs (Soil Education Centre - Soil Museum). 5. Analysis of soil- site maps. **Field training (Two days 2 x 7hours)** 1. The lowland forest sites. 2. The mountain forest sites.	
Assessment method	practical course - report, field studies - report, final note - test exam	
References	Lasota J., Błońska E. 2013. Forest site science in the Polish lowlands and highlands. Scientific papers of University of Agriculture in Krakow Lasota J., Błońska E. 2014. Site creating value of forest soil with lithological discontinuities. Sylwan 158: 10−17	

	Brożek S.. 2007. Numerical valuation of soil quality - a tool in the diagnosis of forest sites. Sylwan 2: 35-42. Brożek S., Zwydak M.. 2003. Atlas of Polish forest soils. Publishing house CILP. Brożek S., Zwydak M., Wanic T., Gruba P., Lasota J.. 2007. Trends in improving methods for identifying of forest sites. Sylwan 2: 26-34. Instructions the forest management. 2003. Part 2. Instructions the distinguish and mapping of forest sites. CILP. Warszawa. Classification of Polish forest soils. 2000. CILP. Warszawa. Mąkosa K., Dzierzbicki J., Gromadzki A., Kliczkowska A., Krzyżanowski A.. 1994. The principles of forest sites mapping. IBL, Warszawa. Sikorska E.. 2006. Geography of Polish forests. AR Krakowie. Sikorska E.. 2006. Forest sites. Vol. I. The lowland sites. AR Krakowie.