UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN

Faculty of Geoengineering

Course title: RURAL SPACE MODELLING

ECTS credit allocation (and other scores): 2

Semester: spring

Level of study: ISCED-7 - second-cycle programmes (EQF-7)

Branch of science: Engineering and technology

Language: English

Number of hours per semester: 15/30

Course coordinator/ Department and e-mail: Krystyna Kurowska/Institute of Geospatial Engineering and Real Estate, krystyna.kurowska@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Assessment of the structure of land use and development status of the selected administrative unit using spatial order measures; Analysis of development changes in the selected communes (villages); Identification of the state of use of rural space - negative and positive examples of development of rural space; Preparation of a spatial order assessment card.

LECTURES: Trends in changes of rural development (sustainable development, measures of sustainable development); Optimal use structure (functionality, spatial distribution); Land reclamation (restoring agricultural, forestry and recreational production potential); Areas at risk of flooding (flood risk maps); Changes in land use (dynamics of changes, forecasting changes, identification of factors causing changes in the use of agricultural and forest land for other purposes).

Learning purpose: Practical exercises using data from geoinformation services and GIS systems. Lecture with multimedia presentation.

On completion of the study programme the graduate will gain:

Knowledge: W1 - has a basic knowledge of the systemic description of complex processes, structures and institutions in spatial management and in the valuation or management of real estate; W2 - knows the systematics, form, content and procedures of creating spatial development plans and other planning documents; W3 - has extended knowledge in the field of spatial, environmental and financial effects of planning studies in the management and planning space planning, (InzA_W01+++, InzA_W03+++, T2A_W04+++, T2A_W07+++, K2A_W01+, K2A_W04+, K2A_W07+).
Skills: U1 - Can analyze and interpret the provisions of planning studies in terms of spatial, environmental and financial effects; U2 - Can model complex social phenomena and processes occurring in planning space, allowing a better understanding of spatial management as a practical activity (InzA_U04+++, S2A_U04+++, K2A_U08+, K2A_U20+).
Social Competencies: K1 - Understands the need for lifelong learning, can inspire and organize the learning process of others; K2 - Is able to correctly define priorities for the implementation of specific tasks in the field of spatial management (S2A_K03+++, T2A_K01+++, K2A_K01+, K2A_K04+).

Basic literature: 1) Cymerman R. (red.), Podstawy planowania przestrzennego i projektowania urbanistycznego, wyd. UWM Olsztyn, 2012; 2) Urbański J., GIS w badaniach przyrodniczych, wyd. Wydawnictwo Uniwersytetu Gdańskiego, 2010; 3) Podciborski T., Metody oceny struktury przestrzennej i potencjału obszarów wiejskich wspomagające prace urządzeniowo-rolne i rewitalizacyjne, wyd. UWM Olsztyn, 2017

Supplementary literature: 1) Cymerman R. (red.), Przestrzenne, finansowe i środowiskowe skutki opracowań planistycznych, wyd. UWM; Olsztyn, 2017 ; 2) Longley P.A., Goodchild M.F., Maguire D.J., Rhind D.W., GIS. Teoria i praktyka., wyd. PWN, 2008

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 45

Student's independent work: 15