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| Academic Year: |  | Group of subjects: basic / professional |  | Catalogue number: |  |
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| Module title1):  | **Sustainable development of rural areas** | ECTS 2) | **4** |
| Polish Translation3):  | Zrównoważony rozwój obszarów wiejskich |
| Faculty4):  | Organic agriculture and food production  |
| Person in charge of the module5):  | Dr hab. inż. Barbara Żarska, professor SGGW |
| Teachers responsible for laboratory classes, workshops and seminars6):  | Dr hab. inż. Barbara Żarska, prof. WULS-SGGW, Dr. Vasileios Gkisakis, PhD, MSc, Dr hab. Inż. Zbigniew Karaczun, prof. WULS-SGGW, Dr inż. Beata Fornal-Pieniak |
| Unit responsible for the module7): | Department of Environmental Protection |
| Faculty in charge8): | Faculty of Agriculture and Biology |
| Module status9):  | a) mandatory | b) stage I | year I | c) intramural |
| Teaching cycle10):  | Semester 2 | Module language11): English |  |
| Objectives of the module12): | To increase students” knowledge, skills and competence in the field of: sustainable development in rural areas, including planning of ecological structure of agricultural lands, ways of integration of social, economic and natural objectives leading to sustainable development as well as legal and financial instruments supporting this form of development. |
| Teaching forms and number of hours13): | 1. Lectures 30 h
2. Exercises 15 h
 |
| Teaching methods14): | Lecture: multimedia presentation, discussion within the groupsExercises: projecting tasks working in teams, with the help of topographic maps of rural communes and original forms to complete; presentation of results and exchange of experience |
| Detailed module description15): | **Lecture**sPart 1 (15 h)* Terms of ecological balance and stability of natural system. Agricultural system: balanced and unbalanced. Global environmental challenges and the concept of sustainable development. Principles of sustainable development. Concept of ecosystem services. Idea of ecological space and ecological footprint. Inviolable barriers of natural system stability as borders of socio-economic development.
* Integration of ecological policy aims in strategy of agriculture development. Ecological policy – development from pipe end solution to sustainable development. Agenda 21 as a base of local development. United Nations Goals of Sustainable Development (SDG) with reference to rural areas.
* Village as a place of food production. Negative environmental effects of unbalanced agriculture – degradation of water, soil, air and biological diversity. Problems of food quality from industrial forms of agricultural production. Problem of GMO.
* Role of spatial planning as an instrument ensuring sustainable development of rural terrains. Local and regional strategies of development. Principles of natural networks creating and maintaining of ecological corridors. Management of areas with high natural values occurring in rural landscape.

Part 2 (15 h)* European vision of sustainable development and its realisation in Poland. Evolution, aims and principles of EU agricultural policy. Basic instruments of this policy. Tools for balancing agricultural production: agri-environmental programs, agri-environmental-climatic activities, cross compliance, zones exposed to nitrates from agricultural sources, Animal welfare. Mistakes of EU policy – development of the first generation biofuels and influence on environment in developing countries. Problem of land grabbing. European production of fruits and vegetables in Africa.
* Institutions supporting rural areas and their role in sustainable development. Agricultural consulting. Modern technologies supporting rural development. Social participation in designating directions of development. Legislation as the instrument of sustainable development.
* Social issues of sustainable development in rural areas. Models of agriculture for maintaining social bonds. Social capital and methods of its creation. Role of rural culture in social capital development. Cooperation of agricultural producers as a base of sustainable agriculture.
* Multifunctionality as a base of sustainability. Rural areas as places of economic development. Role of rural areas in development of renewable energy sources. Agritourism. Phytotherapy. Hortiterapy.
* Rural development towards global ecological challenges. Rural areas vs. global climate change. Role of agriculture in biodiversity protection.

ExercisesProject task ”Concept of ecological structure planning of rural commune in terms of biological diversity and ecological balance protection”. Scale 1:25 000. Students work in double teams.  |
| Formal prerequisites16): | Environmental protection |
| Initial requirements17): | General knowledge on contemporary problems of environmental endangerments and protection  |
| Learning outcomes18): | **Knowledge**01 – Has knowledge of integration of goals in environmental policy with goals in strategies of village and agriculture development. Knows and understands aims of national and international policy in these terms.02 – Knows instruments useful to support sustainable development of rural areas.03 – Knows how to use local potential for sustainable development and instruments to support.**Skills**04 – Is able to designate priorities in action in reference to social, economic and natural development according to the principle of sustainability | 05 – Is able to formulate professional opinions on sustainable development in rural areas and use appropriate instruments.**Social competences**06 - Is aware of the role of rural areas in sustainable development and their sensitivity to threats.07 – Is able to work in a group solving problems concerning sustainable development in rural areas and present results of the work. |
| Assessment methods19): | 01,02, 03 Written test (lecture and exercises theoretical material)04, 05 Scores: 1 report, 2 short tasks in 2-3 person team |
| Formal documentation of the learning outcome20): | Written test (questions and answers with the achieved score)Scores in students’ card |
| Elements impelling final grade21): | Written test grade 65%, Average from exercise tasks 35% |
| Teaching base22):  |  seminar room, lecture room,  |
| Obligatory and supportive materials23): 1. Karaczun Z. M., Obidoska G., Indeka L.: Ochrona środowiska. Współczesne problem, Wyd. SGGW. Warszawa 2015. 2. Karaczun Z. M., Obidoska G., Żarska B.: Rolnictwo wobec zmian klimatu. Wyd. SGGW, Warszawa 2013.3. Poskrobko B., Poskrobko T.: Zarządzanie środowiskiem w Polsce. Wyd. PWE, Warszawa 2012 |
| Annotations24):  |

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| Assessment methods 19): | Exam on lecture contents Assessment of projecting tasksAssessment of results presentation |
| Formal documentation of learning outcomes 20): | Archiving of works and documentation of the course of classes |
| Elements impelling final grade 21): | Exam on lecture contents – 60%,Projecting tasks – 30%Presentation of work results – 10%,  |
| Teaching base 22):  | Lecture room, seminar room |
| Obligatory and supportive materials23):**Obligatory literature**:Karaczun Z. M., Obidoska G., Żarska B. 2015: Rolnictwo wobec zmian klimatu. Wyd. SGGW, Warszawa.Majewski E. 2008: Trwały rozwój i trwałe rolnictwo. Teoria a praktyka gospodarstw rolniczych. Wyd. SGGW, Warszawa**Supportive literature:**Karaczun Z. M., Obidoska G., Indeka L.2016: Ochrona środowiska. Współczesne problemy. Wyd. SGGW, Warszawa. |
| Annotations24): |

Quantitative summary of the module25):

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| Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module18) - base for quantifying ECTS2: | 90 h |
| Total ECTS points, accumulated by students during contact learning: | 2 ECTS |
| Total ECTS points, accumulated by student during practical classes (laboratories, projects, seminars, etc.): | 2 ECTS |

Learning outcomes of the module relative to the learning outcomes of the subject26):

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| Outcome No / symbol | Learning outcomes: | Relative to the learning outcomes of the subject: |
| 01 | Has knowledge of integration of goals in environmental policy with goals in strategies of village and agriculture development. Knows and understands aims of national and international policy in these terms | Has a basic knowledge of environmental protection, the impact of organic agricultural production on the condition of the natural environment and the quality of organic food |
| 02 | Knows instruments useful to support sustainable development of rural areas. | Has a basic economic, legal and social knowledge which necessary for organizing organic agricultural production and functioning of rural areas |
| 03 | Knows how to use local potential for sustainable development and instruments to support. | Has a basic economic, legal and social knowledge which necessary for organizing organic agricultural production and functioning of rural areas |
| 04 | Is able to designate priorities in action in reference to social, economic and natural development according to the principle of sustainability | Uses the mechanisms of Common Agricultural Policy in the design of ecological development of farms and rural areas |
| 05 | Is able to formulate professional opinions on sustainable development in rural areas and use appropriate instruments. | Uses the mechanisms of Common Agricultural Policy in the design of ecological development of farms and rural areas |
| 06 | Is aware of the role of rural areas in sustainable development and their sensitivity to threats. | Is aware of the importance of social, professional and ethical responsibility for ecological production of high quality food, animal welfare and shaping the condition of natural environment |
| 07 | Is able to work in a group solving problems concerning sustainable development in rural areas and present results of the work. | Is able to work individually and in a group, assuming different roles in it, aiming to achieve the assumed goal |

Całkowity nakład czasu pracy – przyporządkowania ECTS 2):

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| Udział w wykładach | 30 h |
| Udział w ćwiczeniach i konsultacjach | 20 h |
| Praca własna: wykonanie zadań ćwiczeniowych, przygotowanie prezentacji, przygotowanie do egzaminu | 40 h |
| Razem | 90 h**4 ECTS** |

W ramach całkowitego nakładu pracy studenta – łączna liczba punktów ECTS, którą student uzyskuje na zajęciach wymagajacych bezpośredniego udziału nauczycieli akademickich:

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| --- | --- |
| Udział w wykładach | 30 h |
| Udział w ćwiczeniach | 15 h |
| Udział w konsultacjach |  5 h |
| Razem | 50 h**2 ECTS** |

W ramach całkowitego nakładu pracy studenta – łączna liczba punktów ECTS, którą student uzyskuje w ramach zajęć o charakterze praktycznym:

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| Udział w ćwiczeniach | 15 h  |
| Udział w konsultacjach |  5 h |
| Praca własna: wykonanie zadania projektowego, przygotowanie prezentacji | 10 h |
| Razem | 30 h**1,5 ECTS** |