

## SUBJECT CARD

### 1. Basic information

|                         |                                                |
|-------------------------|------------------------------------------------|
| <b>Subject</b>          | <b>International Protection of Environment</b> |
| Faculty                 | Faculty of Law                                 |
| Field of studies        | International Relations                        |
| Specialization          | international business                         |
| PRK level               | 6 PRK                                          |
| Education level         | first-cycle studies                            |
| Form of studies         | full-time studies                              |
| Group of activities     | —                                              |
| Number of ECTS points   | 4                                              |
| Type of subject         | obligatory                                     |
| Total number of hours   | 30 h                                           |
| Didactic cycle          | 2024/2025 winter                               |
| Academic semester       | 6                                              |
| Academic year           | 3                                              |
| Education profile       | general academic                               |
| Year of implementation  | 2026/2027                                      |
| Language of instruction | English                                        |
| Teacher(s)              | prof. dr hab. Jerzy Zdanowski                  |

### Semester, number of ECTS points, type of subject, number of hours

|          |                  |
|----------|------------------|
| Semester | Discussion class |
| 6        | 30 godz. 4 ECTS  |

### 2. General objectives

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C1</b> | The aim of the course is to expand student's knowledge about the environment protection including international and european environment protection law. The environmental principles and concept will be introduced as well as international governance. Students will participate in discussion which covers covers topics such as population, biodiversity, climate change, ozone depletion, toxic and hazardous substances, air, land, sea and transboundary water pollution, conservation of marine resources, desertification, and nuclear damage. |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 3. Introductory requirements

Basic knowledge about environment

### 4. Learning outcomes

|           |                                                                                                                                                                                                                                |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>W1</b> | Knowledge: knows the principles of international and european environmental law, have knowledge about the background of international protection community, is aware of environmental problems and their impact on the society |
| <b>U1</b> | Skills: express his knowledge about the environmental protection in oral and written, discuss and interpret the environmental issues including law and key concepts.                                                           |
| <b>K1</b> | Social competence: work in group, build relations, express his opinion, show empathy                                                                                                                                           |

### 5. Course program

Discussion class (30 h)

| Code  | Detailed description of the topic blocks (semester: 6)                                                                                                                                                                                                                                                                                                                                |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kon1  | 1. Environment Protection in general<br>- law in Poland and EU<br>- Historical Development - from Stockholm to the Johannesburg Conference<br>- "Key Concepts" of International Environment Law,<br>- International Environmental Governance                                                                                                                                          |
| Kon2  | Cooperation on tackling the climate:<br>- mechanism for monitoring greenhouse gases (regulations, key points, Greenhouse gas inventory)<br>- the EU and the UN climate change negotiations<br>- EU climate change policy<br>- Clean efficient energy<br>- Cleaner Transport<br>- Business: Environmental responsibility<br>- Agriculture & land-useplanning<br>- Innovation framework |
| Kon3  | Air pollution reduction                                                                                                                                                                                                                                                                                                                                                               |
| Kon4  | Toxic and hazardous substances (chemicals)                                                                                                                                                                                                                                                                                                                                            |
| Kon5  | Land, sea and transboundary water pollution                                                                                                                                                                                                                                                                                                                                           |
| Kon6  | Industry and pollution, Waste to energy concept.                                                                                                                                                                                                                                                                                                                                      |
| Kon7  | Sustainable Development and Circular Economy                                                                                                                                                                                                                                                                                                                                          |
| Kon8  | Nature and biodiversity                                                                                                                                                                                                                                                                                                                                                               |
| Kon9  | Environment controls                                                                                                                                                                                                                                                                                                                                                                  |
| Kon10 | Global environmental challenges                                                                                                                                                                                                                                                                                                                                                       |

### 6. Didactic methods

| Discussion class |                         |
|------------------|-------------------------|
| <b>M10</b>       | Seminar                 |
| <b>M16</b>       | Group work              |
| <b>M17</b>       | Multimedia presentation |
| <b>M20</b>       | Lecture                 |

### 7. Student workload

| Number of hours under supervision | Student workload |
|-----------------------------------|------------------|
| Discussion class                  | 30 h             |
| Including e-learning:             | 0 h              |

| Student's own work |      |
|--------------------|------|
|                    | 70 h |

| Total workload                       |        |
|--------------------------------------|--------|
| Total number of hours for the course | 100 h  |
| Total number of ECTS points          | 4 ECTS |

## 8. Conditions for course completion

| Discussion class  |                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Grade 5:</b>   | Active participation in classes: presentation and discussion, 80% of attendance, final test                              |
| <b>Grade 4,5:</b> | Active participation in classes: presentation and discussion, 70% of attendance, final test                              |
| <b>Grade 4:</b>   | Active participation in classes: presentation and discussion, 60% of attendance, final test                              |
| <b>Grade 3,5:</b> | Active participation in classes: presentation and discussion, 50% of attendance, written essay up to 3 pages, final test |
| <b>Grade 3:</b>   | presentation and discussion, 30% of attendance, written essay up to 5 pages, final test                                  |

## 9. Literature

### Basic literature

1. <https://eur-lex.europa.eu/content/summaries/summary-20-expanded-content.html>
2. [https://www.americanbar.org/groups/public\\_education/publications/insights-on-law-and-society/volume-19/insights-volume-19---issue-1/international-environmental-law/](https://www.americanbar.org/groups/public_education/publications/insights-on-law-and-society/volume-19/insights-volume-19---issue-1/international-environmental-law/)
3. <https://public.wmo.int/en/resources/library>

### Lecturer's publications

1. Wilk M., Gajek M., Śliz M., Czerwińska K., Lombardi L. Hydrothermal carbonization process of digestate from sewage sludge: chemical and physical properties of hydrochar in terms of energy application. *Energies* 15 (2022) 6499. . <https://doi.org/10.3390/en15186499>.
2. Śliz M., Tuci F., Czerwińska K., Fabrizi S., Lombardi L., Wilk M. Hydrothermal carbonization of the wet fraction from mixed municipal solid waste: hydrochar characteristics and energy balance. *Waste Management* 151 (2022) 39–48. <https://doi.org/10.1016/j.wasman.2022.07.029>.
3. Czerwińska K., Śliz M., Wilk M. Hydrothermal carbonization process: Fundamentals, main parameter characteristics and possible applications including an effective method of SARS-CoV-2 mitigation in sewage sludge. A review. *Renewable and Sustainable Energy Reviews* 154 (2022) 111873. <https://doi.org/10.1016/j.rser.2021.111873>.
4. Wilk M., Śliz M., Lubieniecki B., Hydrothermal co-carbonization of sewage sludge and fuel additives: Combustion performance of hydrochar. *Renewable Energy* 178 (2021) 1046–1056. <https://doi.org/10.1016/j.renene.2021.06.101>.
5. Wilk M., Śliz M., Gajek M., The effects of hydrothermal carbonization operating parameters on high-value hydrochar derived from beet pulp. *Renewable Energy* 177 (2021) 216–228. <https://doi.org/10.1016/j.renene.2021.05.112>.

## 11. Information about academic teachers

### The person responsible for the card

prof. dr hab. Jerzy Zdanowski (e-mail: [jzdanowski@uafm.edu.pl](mailto:jzdanowski@uafm.edu.pl))