

## Subject card

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          |                                         |                                     |                  |            |     |
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| Subject name and code                       | Water in the city, PG_00140225                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                          |                                         |                                     |                  |            |     |
| Field of study                              | History                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                          |                                         |                                     |                  |            |     |
| Date of commencement of studies             | October 2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                          | Academic year of realisation of subject |                                     | 2025/2026        |            |     |
| Education level                             | Bachelor's studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          | Subject group                           |                                     |                  |            |     |
| Mode of study                               | full-time studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                          | Mode of delivery                        |                                     | e-learning       |            |     |
| Year of study                               | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                          | Language of instruction                 |                                     | Polish<br>Polish |            |     |
| Semester of study                           | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                          | ECTS credits                            |                                     | 2.0              |            |     |
| Learning profile                            | academic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                          | Assessment form                         |                                     | credit           |            |     |
| Conducting unit                             | Department of Hydrology -> Faculty of Oceanography and Geography -> Rector                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                          |                                         |                                     |                  |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                          | dr Katarzyna Jereczek-Korzeniewska      |                                     |                  |            |     |
|                                             | Teachers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                          | dr Izabela Chlost                       |                                     |                  |            |     |
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          | dr Katarzyna Jereczek-Korzeniewska      |                                     |                  |            |     |
| Lesson types                                | Lesson type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Lecture                                                  | Tutorial                                | Laboratory                          | Project          | Seminar    | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30.0                                                     | 0.0                                     | 0.0                                 | 0.0              | 0.0        | 30  |
|                                             | E-learning hours included: 30.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                          |                                         |                                     |                  |            |     |
|                                             | eNauczanie source addresses:<br>Moodle ID: 13344 Woda w Mieście - wykład ogólnouczelniany 2025/2026 sem. letni<br><a href="https://mdl.ug.edu.pl/course/view.php?id=13344">https://mdl.ug.edu.pl/course/view.php?id=13344</a>                                                                                                                                                                                                                                                                               |                                                          |                                         |                                     |                  |            |     |
| Learning activity and number of study hours | Learning activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Participation in didactic classes included in study plan |                                         | Participation in consultation hours |                  | Self-study | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30                                                       |                                         | 0.0                                 |                  | 20.0       | 50  |
| Subject objectives                          | To get acquainted with problems connected with the course of urbanization processes in the world, in Poland.; Recognise and identify the risks and constraints arising from these processes.; Discuss the role of water in the city and the difficulties associated with urban water supply.; Bringing urban water conflicts closer together.; Learning about ways to protect water resources in urban areas.; Learning about basic urban water management problems and sources of hydrological information |                                                          |                                         |                                     |                  |            |     |

| Learning outcomes               | Course outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                 | Course outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Subject outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Method of verification                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>- The student knows and lists problems, theories and trends in the spatial economy of individual countries and continents, taking into account aspects of the natural environment; he/she understands their theoretical and practical significance.</li> <li>- The student names and describes to an advanced degree the concepts of sustainable development and spatial order, and understands their significance for the economy.</li> <li>- The student names and explains the most important determinants and processes of spatial economy, taking into account the specificity of Polish maritime areas and Poland.</li> <li>- The student makes use of scientific literature and uses geographic terminology in Polish in the field of hydrology and other disciplines. The student is able to formulate and solve untypical and complex spatial management problems in accordance with the principles of sustainable development and spatial order.</li> <li>- The student correctly identifies and explains conditions of spatial management of a specific area and predicts the influence of basic social processes on the structure of a broadly understood spatial management.</li> <li>- The student analyses and evaluates the causes and course of changes taking place in the water environment at various time and spatial scales</li> <li>- The student is able to make decisions independently and take responsibility for the consequences of his own actions as well as those of his team. He/she understands the need of continuous personal and professional development..</li> <li>- The student demonstrates an approach to critical evaluation of his/her knowledge and perceived content in the field of ways and forms of spatial development, sustainable development and spatial order. Demonstrates responsibility for their own work preparation.</li> </ul> | [SW1] oral statement/<br>conversation/discussion<br>[SW2] presentation/project/paper/<br>report<br>[SW3] text preparation/written<br>work<br>[SU1] oral statement/conversation/<br>discussion<br>[SU2] presentation/project/paper/<br>report<br>[SU3] text preparation/written work<br>[SK1] oral statement/conversation/<br>discussion<br>[SK2] presentation/project/paper/<br>report<br>[SK3] text preparation/written work |
| Subject contents                | Introduction - urbanisation (history of urbanisation and characteristics of urbanisation processes) 2. Characteristics of urbanised areas (urban environment, climate of urbanised areas) 3. Pollution in the urban environment 4. Water relations and urbanisation processes (surface water, groundwater) 5. Impact of urbanisation on water quality, on groundwater and on adjacent areas 6. Extreme hydrological phenomena - natural disasters (droughts, floods, tsunamis) 7. Extreme hydrological phenomena - technological disasters 8. Urban hazards and global change 9. Urban water availability 10. The role of water in urban areas (population supply, industrial water supply, sports, recreation, transport) 11. Urban sanitation 12. Slums (e.g. Millennium Programme) 13. Urban water-borne diseases and epidemics 14. Urban water conflicts 15. Urban water supply in the future |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Prerequisites and co-requisites |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Assessment methods and criteria | Subject passing criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Passing threshold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Percentage of the final grade                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                 | completion of a credit work - essay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 51.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 100.0%                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recommended reading                                            | Basic literature                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• .Bednarek A., 1984, Z badań nad mikroklimatem miasta, [in:] Wpływ zieleni na kształtowanie środowiska miejskiego, PWN, Warszawa</li> <li>• Ciupa T., Suligowski R., 2014, Water in the city, Kom. Hydrograf. PTG, Institute of Geography Jan Kochanowski University, Kielce</li> <li>• Holdys A., 2009, City under the city, Wiedza i Życie (July 2009)</li> <li>• Jałowiecki B., 2009, Czy metropolia jest miasto, Scholar, Warsaw, PDF</li> <li>• Kaniecki A., 2004, Dzieje miasta wodą pisane, Wyd. Poznańskie Towarzystwa Przyjaciół Nauk, Poznań</li> <li>• Kapuściński R., 2007, Rwący nurt historii - zapiski o XX i XXI wieku, Znak Publishing House, Kraków</li> <li>• Kosmala M., Łukaszewicz J., 2006, Influence of trees on water circulation in urban environment, IX Forum of Landscape Architecture, Szczecin</li> <li>• Kowalczak P., 2007, Konflikty o wodę, Przeźmierzowo: Wydawnictwo Kurpisz S.A., Poznań</li> <li>• Kowalczak P., 2011, Wodne dylematy urbanizacji, Wyd. Poznańskie Towarzystwa Przyjaciół Nauk, Poznań</li> <li>• Kundzewicz Z., Kowalczak P., 2008, Zmiany klimatu i ich skutki, Wydawnictwo Kurpisz S.A., Poznań</li> <li>• Łupienko A., Zabłocha-Kos A., 2019, Architecture in the city, architecture for the city, vol. 2, Institute of History of the Polish Academy of Sciences, Warsaw</li> <li>• Macias A., Bródka S., 2014, Przyrodnicze podstawy gospodarowania przestrzenią, Wyd. PWN, Warsaw</li> <li>• Schumm S. A., 1997, The Fluvial System, Wiley, New York</li> <li>• Urban water footprint - better urban water management</li> </ul> |
|                                                                | Supplementary literature                                                                                                                                                                                                                    | lack of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                | eResources addresses                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Example issues/<br>example questions/<br>tasks being completed | <p>1.Can floods be avoided? Water hazards.2.Is a river in a city a curse or a resource/gift?3.What is a water footprint? In search of new solutions.4. urban water footprint - a city's water needs5. How to better manage urban water?</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Work placement                                                 | Not applicable                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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