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Course title: RAINWATER MANAGEMENT SYSTEMS

ECTS credit allocation (and other scores): 1.5

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: 30

Course coordinator/ Department and e-mail: prof. dr hab. inż. Marcin Zieliński/Department of Environmental Engineering/marcin.zielinski@uwm.edu.pl

Type of classes: classes

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Substantive content

CLASSES: Calculation of the amount of rainwater. Devices for the treatment of rainwater (ground filters, wetlands sewage treatment plants, sedimentation ponds). Devices for sustainable rainwater management (infiltration with underground retention, surface infiltration, infiltration with surface retention, retention). Green roofs. Design of an individual rainwater management system

LECTURES: -

Learning purpose: To acquaint students with the principles of sustainable rainwater management.

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On completion of the study programme the graduate will gain:

Knowledge: He knows the methods of collection, treatment and use of rainwater and the principles of designing systems for their use.

Skills: He can design a system for the collection, treatment and use of rainwater.

Social Competencies: Is aware of the importance of sustainable rainwater management and its impact on the environment.

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Basic literature:

1) Geiger W., Dreiseitl H. H., Nowe sposoby odprowadzania wód deszczowych, wyd. Oficyna Wydawnicza Projprzem-EKO Bydgoszcz, 1999; 2) Łomotowski J., Problemy zagospodarowania wód opadowych, wyd. Seidel - Przywecki, 2008; 3) Królikowska J., Ocena przydatności hydroseparatorów do podczyszczania ścieków opadowych, wyd. Politechnika Krakowska, 2010; 4) Wałęga A, Radecki - Pawlik A. Kaczor G., Naturalne sposoby zagospodarowania wód opadowych, wyd. Wydawnictwo Uniwersytetu Rolniczego w Krakowie, 2

Supplementary literature:

1) Edel R., Odwodnienie dróg, wyd. Wydawnictwo Komunikacji i Łączności WKŁ, 2017

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The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 1.28

Student's independent work: 0.22