

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Town and Space Planning		Code 1010101261010130956
Field of study Environmental Engineering First-cycle Studies	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 6
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: 15 Laboratory: - Project/seminars: -		No. of credits 2
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 2 100% 2 100%
Responsible for subject / lecturer: dr hab. inż. Zbigniew Bromberek, prof. nadzw. email: zbigniew.bromberek@put.poznan.pl tel. +48 61 647 5827, +48 61 665 2438 Wydział Budownictwa i Inżynierii Środowiska ul. Piotrowo 5 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge of the design and operation of water, sewage, and remote heating systems
2	Skills	Appreciation of external conditions for development and analyses of engineering solutions in their socio-economic, geopolitical and historical contexts
3	Social competencies	Awareness of the need for continuous updating and expanding knowledge and skills, including team cooperation
Assumptions and objectives of the course: Presentation of knowledge in the area of urban and regional planning as a context in performing professional functions in environmental engineering as well as providing basic skills and knowledge required in solving typical problems found in built environment and related to goals formulation and demand forecasting; introduction of modern tools and methods to collect and process information with the use of the GIS		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. (W) Student knows fundamental principles of urban design and town planning as well as used/available means - [K_W02, K_W05, K_W07, K_W08]		
2. (W) Student knows and understands basic legal framework and most important planning documents - [K_W05, K_W08, K_W09]		
3. (W) Student knows and understands principles of developing urban technical infrastructure in a context of organisational, technical and economic limitations, technicznych i ekonomicznych - [K_W05, K_W07, K_W08, K_W09,]		
4. (Ć) Student has the knowledge of the functionalities and structure of the Geographical Information Systems (GIS) - [K_W02]		
5. (Ć) Student has the knowledge of the sources and formats of the spatial data exchange used in development and planning - [K_W02]		
6. (Ć) Student basic types of spatial analyses and possibilities to utilise them in land development - [K_W02, K_W05]		
Skills:		

<p>1. (W) Student can describe aims and goals of townplanning in regard to a given type of infrastructure - [K_U01, K_U10]</p> <p>2. (W) Student can identify conditions, barriers and limitations and forecast development trends for a given type of infrastructure - [K_U01, K_U07, K_U10, K_U14]</p> <p>3. (W,Ć) Student can analyse planning documentation as an expression of inter alia investor needs and abilities - [K_U01, K_U02, K_U04, K_U07, K_U10, K_U12]</p> <p>4. (Ć) Student can collect and use GIS data as a planning tool - [K_U01, K_U09]</p>
<p>Social competencies:</p> <p>1. (W) Student appreciates necessity of continuous updating and expanding his/her professional competencies - [K_K01, K_K02, K_K05, K_K07]</p> <p>2. (Ć) Student understands the need for utilisation of teamwork in solving engineering problems both theoretical and practical - [K_K03, K_K04]</p>

Assessment methods of study outcomes	
<p>1. (W) Test (approx. 30 questions), multiple choice, around 30 minutes (W02, W05, W07, W08, W09, U01, U07, U10, U14)</p> <p>2. (Ćcz.1) Test (approx. 10 questions, both open and closed, around 30 minutes (W02, W05, U01, U02, U07, U10, U12, U14)</p> <p>3. (Ćcz.2) Student presentation of their work results (W02, W05, U01, U02, U07, U10, U12, U14)</p> <p>2. Hands-on control of progress and student cooperation, active acquisition of knowledge and skills (K03, K04)</p>	
Course description	
<p>? Basic definitions (urban design, townplanning, land development, technical infrastructure, ? , spatial planning)</p> <p>? Urban design as a response to environmental (as well as other) challenges</p> <p>? Urbanisation and accompanying phenomena in the environmental setting</p> <p>? Aims and goals of planning, plan systems, planning documentation and other analyses</p> <p>? Legal framework for planning activities and land management (land development)</p> <p>? Systems of geographical information (GIS) in urban design and townplanning as analytical and planning tools</p> <p>? Studies and analyses in planning</p> <p>? Principles of urban design (parameters, standards and indices)</p> <p>? Technical infrastrucre in townplanning</p> <p>? Principles of location of infrastructure elements in the urban space</p>	
Basic bibliography:	
<p>1. Chmielewski JM Teoria urbanistyki w projektowaniu i planowaniu miast Wyd. Politechniki Warszawskiej, W-wa 2001</p> <p>2. Czarnecki W Planowanie miast i osiedli t.I-VI, PWN, W-wa 1965</p> <p>3. Regulski J Planowanie miast PWE, W-wa 1986</p> <p>4. Wróbel T Zarys historii budowy miast Ossolineum, Wrocław 1971</p> <p>5. Longley P GIS Teoria i praktyka PWN, W-wa, 2006</p>	
Additional bibliography:	
<p>1. Domański T Strategiczne planowanie rozwoju gospodarczego gminy Arkady, W-wa 2000</p> <p>2. Kopietz-Unger J Urbanistyka w systemie planowania przestrzennego Wyd. Politechniki Poznańskiej, P-ń, 2000</p> <p>3. Longley P GIS Teoria i praktyka PWN, W-wa, 2006</p> <p>4. Maik W Podstawy geografii miast Wyd. UMK, Toruń 1992</p> <p>5. Rutkowski S Planowanie przestrzenne obszarów wypoczynkowych w strefie dużych miast PWN, W-wa 1975</p> <p>6. Styryna-Bartkiewiczowa K i Szafer TP Ekologia środowiska mieszkaniowego Ossolineum, K-ów 1977</p> <p>7. Szczygielski K Zarządzanie przestrzenią Wyd. WSZiA, Opole 2003</p> <p>8. Beer A Environmental planning for site development EandSpon, London 1996</p> <p>9. Hawkes D The environmental tradition EandFN Spon, London 1996</p> <p>10. Lang J Urban design: a typology of procedures and products Architectural Press, Oxford 2005</p> <p>11. Marcus CC, Sarkissian W Housing as if people mattered University of California Press, Berkeley 1986</p>	
Result of average student's workload	
Activity	Time (working hours)
1. Udział w wykładach	15
2. Udział w ćwiczeniach	15
3. Przygotowanie do ćwiczeń	10
4. Przygotowanie do zaliczeń	10

Student's workload		
Source of workload	hours	ECTS
Total workload	50	2
Contact hours	30	1
Practical activities	25	1