

<b>COURSE DESCRIPTION CARD</b>			
The name of the course/module <b>INFORMATION TECHNOLOGY</b>			Code <b>A_K_1.4_007</b>
Main field of study <b>ARCHITECTURE</b>	Educational profile (general academic, practical) <b>general academic</b>		Year / term <b>II/4</b>
Specjalization <b>-</b>	Language of course: <b>Polish</b>		Course (core, elective) <b>core</b>
Hours Lectures: <b>15</b> Classes: <b>-</b> Laboratory classes: <b>30</b> Projects / seminars: <b>-</b>			Number of points <b>3</b>
Level of qualification: <b>I</b>	Form of studies (full-time studies/part-time studies) <b>Full-time studies and part-time studies</b>	Educational area(s) <b>Technical Sciences</b>	ECTS distribution (number and %) <b>3      100%</b>
Course status in the studies' program (basic, directional, other) <b>directional</b>		(general academic, from a different major) <b>general academic</b>	
<b>Lecturer responsible for course/lecturer:</b>  dr inż. arch. Borys Siewczyński e-mail: borys.siewczynski@put.poznan.pl Faculty of Architecture ul. Nieszawska 13A, 61-021 Poznań tel. 61 665 33 05		<b>Lecturer:</b>  dr inż. arch. Borys Siewczyński e-mail: borys.siewczynski@put.poznan.pl Faculty of Architecture ul. Nieszawska 13A, 61-021 Poznań tel. 61 665 33 05	
<b>Prerequisites defined in terms of knowledge, skills, social competences:</b>			
1	<b>Knowledge:</b>	-student has basic knowledge of principles of safe using the computer hardware, -student has basic knowledge in the scope of graphic programs,	
2	<b>Skills:</b>	-student can acquire information from field specific literature, data bases and other properly selected sources, can integrate the acquired information, interpret them as well as draw conclusions and come up with opinions supported with satisfactory reasons, -student is able to use the computer hardware,	
3	<b>Social competences:</b>	-student can correctly identify and resolve the dilemmas related to profession,	
<b>Objective of the course:</b>			
<ul style="list-style-type: none"> <li>▪ The objective of the course is provide basics of current knowledge: theoretical and practical knowledge in the scope of the software supporting designing.</li> <li>▪ During classes are presented basics of knowledge related to the software supporting designing in the context of architectural workshop. During classes are executed the specific design tasks – graphic for obtain knowledge typical for discussed topics related to contemporary, information technology workshop. Introduction to their execution are classes introducing to handle individual design applications.</li> </ul>			
<b>Learning outcomes</b>			
<b>Knowledge:</b>			
W01	Student can use the software supporting architectural designing and town planning		<b>AU1_W07</b>
<b>Skills:</b>			
U01	Student can acquire information from field specific literature, data bases and other properly selected sources in Polish and English, can interpret the acquired information as well as draw conclusions and come up with opinions supported with satisfactory reasons.		<b>AU1_U01</b>
U02	Student can communicate using different IT tools in the professional environment and in other environments		<b>AU1_U05</b>
<b>Social competences:</b>			

K01	Student understands the need of continuous self-education (1st and 2nd degree studies, post-graduate studies) - improvement of professional, personal and social competences	AU1_U03
K02	Student can respectively determine priorities for the execution of goals set by himself/herself or by others; is fully aware of the importance of professional conduct; is aware of the liability for tasks performed jointly with others within the team work	AU1_U06
<b>The evaluation methods:</b>		
<p><b>Formative assessment:</b>  <b>Lectures:</b>  Colloquium - test checking the knowledge.  <b>Laboratory classes:</b>  Partial grades including:  graphic work in the DTP program,  practical work – technical drawing in the CAD program,  practical work – computer visualization,  colloquium – test of mastering CAD program  Grading scale: 2,0; 3,0; 3,5; 4,0; 4,5; 5,0  <b>Summative assessment:</b>  The final grade – summary includes:  <ul style="list-style-type: none"> <li>▪ the average of partial grades issued by teacher on the basis of formative assessment,</li> <li>▪ lectures: colloquium grade.</li> </ul> Final grading scale: 3,0; 3,5; 4,0; 4,5; 5,0  <b>Positive grade for module depends on achieved by student all learning outcomes specified in the syllabus.</b></p>		
<b>Course contents</b>		
<p>During classes are presented basics of knowledge related to the software supporting architectural designing in the context of architectural workshop.  During classes are discussed examples of practical use the modern computer instrumentarium. There are also presented theoretical basics related to the software supporting architectural designing. There are discussed issues related to wide spectrum of use the software and computer hardware. There is discussed engineering and architectural practice in relation to presented issues of information technology. There are introduced such elements of contemporary workshop as raster graphics, vector graphics, theoretical and practical basics of use the drafting and object-oriented software. There are also presented issues related to use the instrumentarium of information technology in spatial planning.  Particular emphasis is given to indication the role of visual presentation of design works in the context of design and usable graphics and visualization. Attention is also drawn to the important role of information technology techniques in the field of coordination and exchange the design data.  Individual issues are discussed on the examples of specific design applications. Discussed issues have nature, which is the basis to own and creative search carried out by students in direct reference to laboratory classes of course.  The objective of the course is provides the basics of current knowledge: theoretical and practical knowledge in the scope of the software supporting architectural designing. Lectures are simultaneous the theoretical introduction to practical classes carrying on within the laboratory classes.  During lectures are presented the following issues:  Introductory issues, the software supporting architectural designing in the workshop of architect work.  Autocad as design environment. Discussion of practical issues in the context of laboratory classes.  Architectural engineering applications, selected aspects of connection the traditional and contemporary workshop.  Computer raster graphics, an introduction to the use in architectural work.  Computer vector graphics in engineering workshop.  Engineering software, building structures, tools of information technology and intersectoral coordination.  Architectural visualization in the design process, discussion of practical issues in the context of laboratory classes.  Spatial economy and the software supporting architectural designing.  Summation, trends in development of software and architect workshop.</p>		
<b>Basic bibliography:</b>		
<ol style="list-style-type: none"> <li>1. Pikoń A., <i>AutoCAD 2006 i 2006 PL</i>, HELION, Gliwice, 2006</li> <li>2. Pikoń A., <i>AutoCAD 2006. Pierwsze kroki</i>, HELION, Gliwice, 2006</li> <li>3. Pasek J., <i>3ds max 8. Ćwiczenia praktyczne</i>, HELION, Gliwice, 2006</li> <li>4. Jeremy Birn, <i>Cyfrowe oświetlenie i rendering</i>. Wydanie II, HELION, Gliwice, 2008</li> <li>5. Roland Zimek, Łukasz Oberlan, <i>ABC grafiki komputerowej</i>. Wydanie II, HELION, Gliwice, 2004</li> <li>6. Bruce Fraser, Chris Murphy, Fred Bunting, <i>Profesjonalne zarządzanie barwą</i>. Wydanie II, HELION, Gliwice, 2008</li> </ol>		
<b>Supplementary bibliography:</b>		
<ol style="list-style-type: none"> <li>1. Myrda G., <i>GIS czyli mapa w komputerze</i>, HELION, Gliwice, 1997</li> <li>2. Zimek R., Oberlan Ł., <i>ABC grafiki komputerowej. Wydanie II</i>, HELION, Gliwice, 2005</li> <li>3. Don Sellers, <i>Nie daj się, czyli jak komputer może cię wykończyć</i>, HELION, Gliwice, 2008</li> <li>4. Gawrysiak P.; <i>Cyfrowa Rewolucja. Rozwój cywilizacji informatycznej</i>, Wydawnictwo Naukowe PWN S.A., Warszawa 2008</li> </ol>		

<b>The student workload</b>		
<b>Form of activity</b>	<b>Hours</b>	<b>ECTS</b>
Overall expenditure	83	3
Classes requiring an individual contact with teacher	48	2
Practical classes	35	1

**Balance the workload of the average student**

Form of activity	Number of hours
participation in lectures	15 h
participation in classes/ laboratory classes (projects)	30 h
preparation for classes/ laboratory classes	15 x 1 h = 15 h
preparation to colloquium	12 h
participation in consultation related to realization of learning process	3 x 1 h = 3 h
preparation to the colloquium (lectures)	8 h
attendance at exam	0 h

Overall expenditure of student:

**3 ECTS credits**

**88 h**

As part of this specified student workload

- activities that require direct participation of teachers::

$$45 \text{ h} + 3 \text{ h} = \mathbf{48 \text{ h}}$$