



MODULE DESCRIPTION

Module code	
Module name	Wprowadzenie do interakcji człowiek – komputer
Module name in English	Introduction to Human-Computer Interaction
Valid from academic year	2012/2013

MODULE PLACEMENT IN THE SYLLABUS

Subject	Computer Science
Level of education	1st degree <i>(1st degree / 2nd degree)</i>
Studies profile	General <i>(general / practical)</i>
Form and method of conducting classes	Full-time <i>(full-time / part-time)</i>
Specialisation	
Unit conducting the module	The Department of Computer Science Applications
Module co-ordinator	Andrzej Kułakowski, PhD, Eng.
Approved by:	

MODULE OVERVIEW

Type of subject/group of subjects	Major <i>(basic / major / specialist subject / conjoint / other HES)</i>
Module status	Non-compulsory <i>(compulsory / non-compulsory)</i>
Language of conducting classes	Polish
Module placement in the syllabus - semester	6th semester
Subject realisation in the academic year	Summer semester <i>(winter / summer)</i>
Initial requirements	Programming <i>(module codes / module names)</i>
Examination	No <i>(yes / no)</i>
Number of ECTS credit points	5

Method of conducting classes	Lecture	Classes	Laboratory	Project	Other
Per semester	30		30		

TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS



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Module target	The aim of the module is to raise students' awareness as regards diverse human-computer communication aspects as well as their mutual connections; another aim is to familiarise students with basic information which concern using, utilising, and designing a user interface as well as interactions with computers and the digital environment. Furthermore, the aim of the module is to acquaint students with the ability of independent designing a user interface as well as the knowledge of practical principles of ergonomics and establishing communication with a computer. Finally, students will learn how to shape the ability of applying the above-mentioned methods and techniques.
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Effect symbol	Teaching results	Teaching methods (l/c/l/p/other)	Reference to subject effects	Reference to effects of a field of study
W_01	A student has basic knowledge concerning the use, utilisation, and designing interfaces as well as human and digital environment interaction.	l	K_W12	T1A_W04 T1A_W07 InzA_W02 InzA_W05
W_02	A student has systematised knowledge as regards programming methodology and techniques indispensable in implementing user interfaces.	l/l	K_W07, K_W12, K_W16	T1A_W03 T1A_W04 T1A_W07 InzA_W02 InzA_W05
W_03	A student has systematised knowledge as regards programming methodology and techniques indispensable in implementing diverse interaction types.	l/l	K_W07, K_W12, K_W16	T1A_W03 T1A_W04 T1A_W07 InzA_W02 InzA_W05
U_01	A student can utilise the learnt methods for designing interfaces and for interaction with computers and the digital environment.	p/l	K_U13, K_U18	T1A_U07 T1A_U08 T1A_U09 T1A_U13 T1A_U14 T1A_U15 T1A_U16 InzA_U02 InzA_U05 InzA_U06 InzA_U07 InzA_U08
U_02	A student is able to utilise the acquired programming knowledge for implementing user interfaces and for diverse types of interaction.	p/l	K_U13, K_U18	T1A_U07 T1A_U08 T1A_U09 T1A_U13 T1A_U14 T1A_U15 T1A_U16 InzA_U02 InzA_U05 InzA_U06 InzA_U07 InzA_U08
K_01	A student knows the examples and understands diverse aspects concerning human-computer communication as well as their mutual relationships.	l/l	K_K02	T1A_K02 InzA_K01
K_02	A student can co-operate with the users of information systems in order to explain the principles of human-digital device interaction.	l/l/p	K_K06	T1A_K07



Teaching contents:

Teaching contents as regards lectures

Lecture number	Teaching contents	Reference to teaching results for a module
1	Theoretical notions and fundamentals of human-computer interaction. Modern human digital environment.	W_01, K_01
2	Cognitive and perception possibilities of a man as well as their significance in designing interaction with the computer. Motor possibilities of a man.	W_01, W_02, K_01
3	The computer – basic interface elements: input/output devices as well as their parameters. Mobile devices and other elements of the digital environment.	W_01, W_03, K_01
4	Interaction methods and models. Context in interaction. The methods of realising human-computer interaction.	W_01, W_02, W_03, K_01
5	The utility paradigm. The analysis of an interface design assignment. UCD methodology. The assessment and interface prototyping as well as interaction.	W_01, W_02, W_03
6	User Interfaces: text-based, window-based, graphical, touch, voice, and other based on sensors. Biometric devices. Dialogue with the computer.	W_01, W_02, K_01
7	The principles of designing a Graphical User Interface (GUI). The analysis and evaluation of GUI. Designing and prototyping a program interface.	W_01, W_02
8	GUI implementation practice. Programming languages and programming libraries. GUI classes in particular libraries.	W_01, W_02;
9	Hypertext, www, and multimedia. Ergonomic requirements for a www interface and multimedia. Information architecture and visualisation.	W_01, W_02, K_01
10	Support system and software documentation. Software dedicated for teamwork. Computer system as a co-operation interface in an organisation.	W_01, W_02
11	Record of a dialogue and interaction with a computer. Dialogue semantics and analysis.	W_01, W_03
12	Multimedia interfaces and interactive agents in www. Understanding the natural language by the computer as well as generating text.	W_01, W_02, W_03
13	Interactive conversational systems: chatterbots and their use as well as constructing.	W_01, W_02, W_03, K_01
14	Technological communication support with the disabled. Theoretical and practical solutions concerning work support for the disabled (with the use of computers).	W_01, W_02, W_03, K_01, K_02
15	Advanced interfaces. Post-desktop digital interfaces. Obtaining a credit for the lectures.	W_01, W_02, W_03, K_01, K_02

Teaching contents as regards laboratory classes

Laboratory class number	Teaching contents	Reference to teaching results for a module
1	Testing perception and motor abilities of a man.	W_02, U_01
2	Interface and interaction evaluation.	W_02, U_01
3	Designing a user interface and interaction.	W_02, W_03, U_01, U_02
4	Prototyping a user interface.	W_02, W_03, U_01, U_02, K_02
5	Constructing a GUI for the selected program with the use of the chosen programming library.	W_02, W_03, U_01, U_02
6	Constructing a www interface with the use of the selected technology.	W_02, W_03, U_01, U_02



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7	Constructing an interactive interface of a conversational system.	W_02, W_03, U_01, U_02
8	Constructing an interface of the selected program for a mobile device or a device with the selected sensor.	W_02, W_03, U_01, U_02
9	The selection and specification of an individual assignment.	W_02, W_03, U_01, U_02
10	Interaction project of an individual assignment.	W_02, W_03, U_01, U_02
11	Interface prototype of an individual assignment.	W_02, W_03, U_01, U_02
12	The implementation of an interface and individual assignment interaction.	W_02, W_03, U_01, U_02
13	Presenting an individual assignment.	W_02, W_03, U_01, U_02, K_01, K_02
14	The evaluation of an individual assignment.	W_02, W_03, U_01, U_02
15	Obtaining a credit for laboratory classes.	K_01, K_02

The methods of assessing teaching results

Effect symbol	Methods of assessing teaching results <i>(assessment method, including skills – reference to a particular project, laboratory assignments, etc.)</i>
W_01	A test
W_02	A test on the technologies of constructing interfaces.
W_03	The skills test on the technologies of constructing interfaces.
U_01	The skills test on mastering the ability of designing and prototyping.
U_02	The skills test on programming techniques and implementing interfaces and interactions.
K_01	The presentation of an independently realised assignment.
K_02	The presentation of an independently realised assignment, discussing conclusions from the evaluation of an interface and project interaction completed by other students.

STUDENT'S INPUT

ECTS credit points		
	Type of student's activity	Student's workload
1	Participation in lectures	30
2	Participation in classes	
3	Participation in laboratories	15
4	Participation in tutorials (2-3 times per semester)	4
5	Participation in project classes	15
6	Project tutorials	4
7	Participation in an examination	
8		
9	Number of hours requiring a lecturer's assistance	68 <i>(sum)</i>
10	Number of ECTS credit points which are allocated for assisted work <i>(1 ECTS credit point=25-30 hours)</i>	2.3



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11	Unassisted study of lecture subjects	25
12	Unassisted preparation for classes	
13	Unassisted preparation for tests	
14	Unassisted preparation for laboratories	20
15	Preparing reports	10
16	Preparing for a final laboratory test	
17	Preparing a project or documentation	25
18	Preparing for an examination	
19	Preparing questionnaires	
20	Number of hours of a student's unassisted work	80 <i>(sum)</i>
21	Number of ECTS credit points which a student receives for unassisted work <i>(1 ECTS credit point=25-30 hours)</i>	2.7
22	Total number of hours of a student's work	148
23	ECTS credit points per module <i>1 ECTS credit point=25-30 hours</i>	5
24	Work input connected with practical classes <i>Total number of hours connected with practical classes</i>	93
25	Number of ECTS credit points which a student receives for practical classes <i>(1 ECTS credit point=25-30 hours)</i>	3.14