**SYLLABUS**

for the education cycle starting in the academic year 2023/2024

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| **Course / module name** | **Information technologies** | |
| **Names of units teaching the course** | Department of Biostatistics and Medical Informatics | |
| **Unit’s e-mail** | biostatystyka@umb.edu.pl | |
| **Department** | Medicine with the Division of Dentistry and Division of Medical Education in English | |
| **Name of the field of study** | Medical | |
| **Level of education** | Long-cycle studies for master’s degree | |
| **Form of study** | Full-time □ Part-time □ | |
| **Language of the course** | Polish □ English□ | |
| **Course type** | Mandatory □ Optional □ | |
| **Year of study / semester** | I□ II □ III □ IV □ V □ VI □ | 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □ 10 □  11 □ 12 □ |
| **Introductory courses & prerequisites** | Pass for each subject in accordance with the recruitment procedure | |
| **Number of teaching hours of classes by forms of activity** | 30 h - classes | |
| **Assumptions and objectives of the course** | Familiarizing students with the basics of information technology and the principles of working with the Internet, word processors, spreadsheets, databases and graphic programs. Mastering practical skills in using the programs | |
| **Teaching methods** | Practical classes at a computer workstation  Consultation | |
| **First and last names of the course teacher** | Research and teaching staff employed in the Department of Biostatistics and Medical Informatics | |
| **First and last names of the person responsible for the teaching** | Dr hab. Robert Milewski | |

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| **Code & number of the learning effect** | **Description of subject learning outcomes** | **Forms of activities** | | **Methods of verification of the achievement of the intended learning outcomes** |
| **Knowledge** | | | | |
| B.W26 | Knows the basic IT tools used in medicine, including medical databases, spreadsheets and the basics of computer graphics | | Classes | Summary methods:  Final practical test by working at a computer workstation  Forming methods:  Observation of the student’s work during classes; evaluation of ability to work on their own |
| H.W31 | Knows the rules of working with text editors, preparing presentations, knows the basic techniques of creating websites | | Classes |
| H.W32 | Knows the basics of computer networks | | Classes |
| **Skills** | | | | |
| B.U10 | Uses databases, including online ones, and searches for necessary information using available tools | | Classes | Summary methods:  Final practical test by working at a computer workstation  Forming methods:  Observation of the student’s work during classes; evaluation of ability to work on their own |
| H.U17 | Has computer skills in the field of word processing, graphics, preparation of presentations, working with spreadsheets and the Internet | | Classes |
| **Social competences** | | | | |
| K4 | Recognizes own limitations and makes self-assessments of educational deficits and needs | | Classes | Summary methods:  - Continuous assessment by the teacher (observation) |
| K7 | Uses sources of objective information | |
| K8 | Draws conclusions from own measurements or observations | |

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| **ECTS points** | 1,2 | |
| **Student workload** | | |
| **Form of activity** | | **Number of hours per activity** |
| **Classes requiring participation of the teacher:** | | |
| 1. Realization of the course: lectures (acc. to the Syllabus) | |  |
| 1. Realization of the course: classes (acc. to the Syllabus) | | 30 |
| 1. Realization of the course: seminars (acc. to the Syllabus) | |  |
| 1. Realization of the course: extra-curricular activities | |  |
| 1. Participation in consultations | |  |
|  | | Total hours:30 |
| **Self-directed student work:** | | |
| 1. Self-directed preparation for theory and practical classes (project, documentation, case description, etc.) | |  |
| 1. Self-directed preparation for credits/ colloquiums | |  |
| 1. Self-directed preparation for the final test / exam | | 6 |
|  | | Total hours: 6 |

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| **Course content:** | |
| **Learning results**  **(code & number)** | **Subject area** |
| B.W26 - Knows the basic IT tools used in medicine, including medical databases, spreadsheets and the basics of computer graphics  H.U17 - Has computer skills in the field of word processing, graphics, preparation of presentations, working with spreadsheets and the Internet  K.4 - Recognizes own limitations and makes self-assessments of educational deficits and needs  K.7 - Uses sources of objective information  K.8 - Draws conclusions from own measurements or observations | The basics of working with a computer and the Microsoft Windows operating system |
| B B.W26 - Knows the basic IT tools used in medicine, including medical databases, spreadsheets and the basics of computer graphics  H H.W31 - Knows the rules of working with text editors, preparing presentations, knows the basic techniques of creating websites  H.U17 - Has computer skills in the field of word processing, graphics, preparation of presentations, working with spreadsheets and the Internet  K.4 - Recognizes own limitations and makes self-assessments of educational deficits and needs  K.7 - Uses sources of objective information  K.8 - Draws conclusions from own measurements or observations | Microsoft Word - word processor. Create and edit texts, work with lists, create and edit tables, create and edit graphic objects, figures, create a document structure (on the example of scientific papers, publications) |
| B.W26 - Knows the basic IT tools used in medicine, including medical databases, spreadsheets and the basics of computer graphics  H.U17 - Has computer skills in the field of word processing, graphics, preparation of presentations, working with spreadsheets and the Internet  K.4 - Recognizes own limitations and makes self-assessments of educational deficits and needs  K.7 - Uses sources of objective information  K.8 - Draws conclusions from own measurements or observations | Microsoft Excel - spreadsheet. Enter and edit data, format data regions, create complex formulas (functions), relative and absolute addressing, create and edit charts |
| B.W26 - Knows the basic IT tools used in medicine, including medical databases, spreadsheets and the basics of computer graphics  B.U10 - Uses databases, including online ones, and searches for necessary information using available tools  K.4 - Recognizes own limitations and makes self-assessments of educational deficits and needs  K.7 - Uses sources of objective information  K.8 - Draws conclusions from own measurements or observations | Microsoft Access - database. The essence of working with relational databases. Create and edit tables, forms, queries. Create data access pages and reports. |
| B.W26 - Knows the basic IT tools used in medicine, including medical databases, spreadsheets and the basics of computer graphics  H.W31 - Knows the rules of working with text editors, preparing presentations, knows the basic techniques of creating websites  H.U17 - Has computer skills in the field of word processing, graphics, preparation of presentations, working with spreadsheets and the Internet  K.4 - Recognizes own limitations and makes self-assessments of educational deficits and needs  K.7 Uses sources of objective information  K.8 - Draws conclusions from own measurements or observations | Microsoft PowerPoint - presentations. Types of multimedia presentations, effects of creating presentations, launching presentations, creating portable presentation |
| B.W26 - Knows the basic IT tools used in medicine, including medical databases, spreadsheets and the basics of computer graphics  H.W32 - Knows the basics of computer networks  K.4 - Recognizes own limitations and makes self-assessments of educational deficits and needs  K.7 - Uses sources of objective information  K.8 - Draws conclusions from own measurements or observations | Basics of computer networks |
| H.W32 - Knows the basics of computer networks  B.U10 - Uses databases, including online ones, and searches for necessary information using available tools  H.U17 - Has computer skills in the field of word processing, graphics, preparation of presentations, working with spreadsheets and the Internet | Working with the Internet, viewing data, using search engines |
| H.W31 - Knows the rules of working with text editors, preparing presentations, knows the basic techniques of creating websites  H.U17 - Has computer skills in the field of word processing, graphics, preparation of presentations, working with spreadsheets and the Internet  K.4 - Recognizes own limitations and makes self-assessments of educational deficits and needs  K.7 - Uses sources of objective information  K.8 Draws conclusions from own measurements or observations | Basic techniques for creating websites, the basics of HTML |

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| **Basic references:***(1-2 items)* |
| Carole Matthews, Marty Matthews, John Cronan "Microsoft Office 2010 QuickSteps", McGraw-Hill, 2010 |
| **Complementary references:***(1-2 items)* |
| Marty Matthews "Windows 7 QuickSteps", McGraw-Hill, 2009,  Barksdale Karl, Turner E. Shane „HTML Basics”, Thomson Learning, 2005 |

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| **Criteria for the assessment of learning outcomes and the form of, and requirements for, obtaining credit for the course:** |
| The condition for passing the course is to obtain partial credits for all classes provided for in the syllabus and pass the final practical exam (in the form evaluation of work at a computer station), checking the acquired knowledge and skills to perform practical tasks covered by the curriculum.  Each absence must be made up for by performing the missed exercises. If the percentage of absence exceeds 40%, the student fails the course. |

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*(Date and signature of the head of the teaching unit or the course coordinator)*