48SJO-ITAB
2025
ECTS: 1.00

Course sylabus – part A
Information Technology and Biostatistics

SUBJECT MATTER CONTENT:

Classes
Computer laboratory: IT - software for editing and presenting data and creating simple webpage. BIOSTATISTICS: Principles of organization databases in Statistica or SPSS program and data operations – calculating, coding, and transformation. Confidence intervals – testing the expected value. Parametric and non-parametric tests. Tests for comparison of a sample distribution to a theoretical normal distribution. Comparison of two means (independent and dependent samples). Relationships between variables – the basics of correlation and relationships between nominal variables.

TEACHING OBJECTIVE:
The goal of the laboratory is getting knowledge about main software which allow to gain, process, share and
present information. Introduction students to the methods of statistical analysis of data in medical research.
Learning the statistical analysis of data and the use of the Statistica or SPSS program in statistical analysis

DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:

Symbols for outcomes related to the discipline:
M/NMA_P7S_KO+, M/NMA_P7S_ UW++, M/NMA_P7S_WG++++

Symbols for outcomes related to the field of study:
K.7.+, B.U8.+, B.U9.+, B.W23.++, B.W24.++

LEARNING OUTCOMES (Knowledge, Skills, Social competence):
 W1
 W2
 W3
 U1
 U2
 K1

TEACHING FORMS AND METHODS:

Legal acts specifying learning outcomes:
467/2024 (Medicine),
Status of the course: None
Group of courses: None
Discipline: Medical Sciences
Classes:
Classes (20 h)
Step: Kierunek lekarski drugi rok (oferta w jęz. angielskim dla obcokrajowców)
Program: Medicine
Form of studies: full-time
Level of studies: uniform master's studies

Introductory subject: -

Prerequisites: -

Coordinators:

Jacek Nowakowski,
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Classes-['W1', 'U1', 'K1', 'W2', 'U2', 'W3']-Computer laboratory: exercises - data analysis using software Statictica or SPSS

FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:
Classes-(Report)-['W1', 'U1']-Report - IT – Solving Exercises – Google Docs, Drive, Google Forms, Google Slides, WordPress (50% of final degree)
Classes-(Evaluation of the work and cooperation in the group)-['W2', 'U2', 'W3']-Biostatistics - reports form exercises (analysis of data) (30% of final degree from Biostatistics class)
Classes-(Competention test)-['K1', 'W2', 'U2', 'W3']-Biostatistics - final test (practical task analysis using Statistica or SPSS program) - 70% of final degree from Biostatistics class)

Literature:
1. *Statistics in medicine*, Riffenburgh R.H, Elsevier Academic Press, 2006, Strony: , Tom: (literatura podstawowa)

2. *Prezi Tutorials*, none, none, 2020, Strony: , Tom: (literatura podstawowa)

3. *Wordpress Tutorials*, none, none, 2020, Strony: , Tom: (literatura podstawowa)

4. *, documentation Google Docs*, none, none, 2020, Strony: , Tom: (literatura podstawowa)

5. *Medical Statistics*, Machin D., Campbell M.J., Walters S.J.,, John Wiley and Sons Ltd, 2010, Strony: , Tom: (literatura podstawowa)

6. **https://docs.tibco.com/data-science/textbook** (literatura uzupełniająca)

7. *Oxford Handbook of Medical Statistics*, Peacock J.L., Peacock P.J., Oxford Univ. Press, 2011, Strony: , Tom: (literatura uzupełniająca)

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Detailed description of ECTS credits awarded - part B
Information Technology and Biostatistics

The number of ECTS credits awarded consists of:

1. Contact hours with the academic teacher:

  - participation in: Classes   20 h
  - consultation   2 h
    Total: 22 h

2. Independent work of a student:

     3.00 h
    Total: 3.00 h

Total (contact hours + independent work of a student): 25.00 h

1 ECTS credit = 25-30 h of an average student's work, number of ECTS,
ECTS Points = 25.00 h : 25 h/ECTS = **1.00** ECTS

Average: 1.00 ECTS

  - including the number of ECTS credits for contact hours with the direct participation of an academic teacher   0.88 ECTS
  - including the number of ECTS credits for hours of independent work of a student   0.12 ECTS