Name of university, Name of faculty: Trnava University

Faculty of Health Care and Social Work

INFORMATION SHEET OF THE SUBJECT

Code: VZM05	**Name:** Epidemiological studies	
Cover: Department of Public Health		
Type of educational activity: Seminar, Practise **Scope of educational activity (in hours):** **Weekly:** 2/2 **For term of study:** ZS 46,46 **Method of educational activity:**	**Number of credits:** 5	**Recommended semester:** WT **Study grade:** Master

Recommended semester	Study programme
1.year WT	Public Health (D2-VZ-22) Public Health (D2-VZ-22-K)

Underlie subjects:

Conditions for passing the course:
Method of evaluation: Completion by taking an examination

Continuous evaluation:
Final evaluation: Final evaluation:
• Completion of the final written exam (50% of the total evaluation), continuous tests (5 per term, 30% of the total evaluation), continuous assignments (20% of the total evaluation)

In case of online teaching, final evaluation by written exam (50% of the total evaluation, continuous tests (30% of the total evaluation) and continuous assignments (20% of the total evaluation)

At least 95% must be obtained for grade A, at least 89% for grade B, at least 83% for grade C, at least 77% for grade D and at least 71% for grade E.

Finished: Final witten exam
In case of e-learning – online test

Learning outcomes:
After completing the course, students will be able to:
- Apply their knowledge of epidemiology in practice, specifically focusing on the design of epidemiological studies
- Interpret the results of epidemiological studies
- Formulate conclusions from the results

Deepening knowledge of epidemiology methodology in terms of the ability to use various epidemiological methods in practice. Development of the ability to work independently with the literature, create goals, hypotheses, analyze results, argue and seek solutions using epidemiological methods, know how to design a suitable epidemiological study with a focus on case study, control, cohort studies, intervention studies.

Schedule of subject:
Brief content of topics:
• Epidemiological studies, classification, characteristics
• Basics of work methodology – setting goals, hypotheses, population selection, questionnaire, collection methods, data recording, sorting, analysis, meta-analysis
• Deepening knowledge of biostatistics in the analysis of epidemiological data
• Interpretation and presentation of results

Overview of lecture topics:
1. Introduction – the epidemiologist must not be wrong (case definition, errors, bias, confounding)
2. Division of studies – design of the epidemiological study, their basic characteristics and purpose of use
3. Observational – descriptive studies: case studies
4. Observational – descriptive studies: ecological (correlation) studies
5. Observational – descriptive studies: cross-sectional studies
6. Observational – analytical: cohort studies
7. Observational – analytical: case-control studies
8. Observational – analytical: nested case control studies
9. Observational – analytical: case-cohort studies
10. Intervention – experimental studies (intervention; aim and outcome; population; participant selection criteria; assignment of participants to the study and control group; blinding, masking; restrictions)
11. Study implementation – communication of the risk identified in the study, rapid risk assessment
12. Ethical issues and limitations; study implementation tools

Exercise topics:
1. Recurrence – disease models, case definition, disease incidence rates, bias, confounding, errors
2. Work plan in creating an epidemiological study – problem definition
3. Concept of work, creation of a questionnaire – field data collection, data from statistical sources, databases
4. Work in statistical programmes – programme R, Excel, database creation, data analysis, creation of tables and graphs
5. Solution of practical tasks – risk calculation, confidence intervals, evaluation of the course of studies – making discussion and conclusions,

recommendations for practice
6. Design of an observational study – cross-sectional study
7. Design of an observational study – ecological study
8. Design of an obervational analytical study – cohort study
9. Design of an observational analytical study – case-control study
10. Design of an observational analytical study – nested case-control study
11. Design of experimental study
12. Discussion on ethical issues of studies, determined risk communication

Recommended reading:
1. Rusnák, M.., Rusnáková, V., Príkazský, V., Kotrbová, K.: Propedeutika epidemiológie. Typi universitatis. Trnava, 2018
2. Bražinová, A.: Epidemiologické metódy a ich uplatnenie v epidemiológii vybraných ochorení, 2020, ISBN 978-80-223-4982-6
3. Materials available at https://moodle.truni.sk/
4. online epidemiology journals

Language requirements: Slovak

Notes:
Daily form, attendance method of education
Daily form, combined method of education: through assignments in Moodle/online, distance learning, self-study,
exercises /in-person/
Self-study is supported by e-learning, e.g. test or oral exam via MOODLE.
Attendance at lectures is at the discretion of the lecturer, while attendance at seminars and practical classes is compulsory. Students may be absent on one occasion without providing a reason. Any further absence will require completion of a replacement assignment.

To successfully complete the course, students must submit all assignments by the specified deadlines and meet the required standard.

A student who is absent from more than two teaching sessions during the semester, irrespective of the reason, must submit a written application (not by email) to the Dean of the Faculty requesting that the absence be excused. The application must be supported by documentary evidence relating to the third and each subsequent absence.

For students enrolled in the combined method of study, the lecturer may excuse absences amounting to no more than 25% of the scheduled face-to-face teaching hours during the semester. A student whose absences exceed 25% of the scheduled teaching hours in a semester is required to submit a written application (not by email) to the Dean of the Faculty requesting that the absences be excused and must provide relevant documentary evidence in support of the application.

In accordance with the Study Regulations, the Dean may, at their discretion, grant or refuse the application.

Course evaluation:
Assessed students in total: 345

A	B	C	D	E	FX
11%	21%	26%	19%	14%	9%

Lecturers:
PhDr. Jarmila Pekarčíková, PhD., univ. doc., lecturer, examiner, instructor
Mgr. Dominika Plančíková, PhD., MPH, lecturer, examiner, instructor

Date of last change: 01.09.2026

Approved by: prof. PhDr. Marek Majdan, MSc., PhD.