Semmelweis University, Faculty of Medicine

Pharmaceutical Innovation and Business Adminstration Master of Science

Name of the host institution (and any contributing institution):

Department of Pharmacology and Pharmacotherapy hosting the MSc course announcing this specific subject in collaboration with the Centre for Translational Medicine

Name of subject: Critical literature reading

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in English: Critical literature reading

in German: not applicable

Credit value: 5

Semester: 2025/2026 1st Semester

in which the subject is taught according to the curriculum

Hours per semester	Lecture	Course work	Seminar
150	25	125	

Hours per week	Lecture	Course work	Seminar
Course blocks tailored to the students' employment obligations. Course dates: 10 Oct 14.00-18.00 6 Nov 08:00-16:00 28 Nov 14.00-18.00			

Type of course:

compulsory

Academic year:

2025/2026

Language of instruction (for optional and elective subjects):

English

Course code: new course

(in the case of a new course, to be completed by the Dean's Office, following approval

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Course coordinator name: Prof. Dr. Péter Hegyi

Course coordinator location of work, telephone availability: Semmelweis University, Centre for Translational Medicine, +36-30/0164407

Course coordinator position: Professor

Course coordinator Date and number of habilitation: 2011

Objective of instruction and its place in the curriculum: The objective of instruction is to develop students' ability to critically assess scientific publications and engage with current research in a structured and analytical manner. The course lays a foundation for evidence-based thinking and supports the development of research competencies essential for advanced academic work and thesis preparation.

Method of instruction (lecture, group work, practical lesson, etc.):

Lectures, group work, home-works, and e-learning.

Competencies acquired through completion of course: Through completion of the course, students will acquire the ability to critically evaluate scientific literature, interpret research findings, and identify strengths and limitations in published work. They will also develop skills in evidence-based reasoning, academic collaboration, and independent learning.

Course outcome (names and codes of related subjects):

none

Prerequisites for course registration and completion: (CODE):

none

In the case of multi-semester courses, position on the possibility of and conditions for concurrent registration:

none

The number of students required to start the course (minimum, maximum), student selection method:

all students admitted

Detailed course syllabus (if the course can be divided into modules, please indicate):

(Theoretical and practical instruction must be broken down into hours (weeks), numbered separately; names of instructors and lecturers must be listed, indicating guest lecturers/instructors. It cannot be attached separately! For guest lecturers, attachment of CV is required in all cases!)

Course topics include:

Introduction to evidence-based research and the role of systematic reviews

Formulating research questions using the PICO framework

Literature search strategies and database use (e.g., PubMed, Cochrane Library)

Study selection, inclusion/exclusion criteria, and data extraction

Assessing the quality and risk of bias in individual studies

Introduction to meta-analysis: concepts, effect measures, and heterogeneity

Strengths and limitations of systematic reviews and meta-analyses

Common sources of bias and how to identify them

Reporting standards (e.g., PRISMA) and transparency in methodology

Critical appraisal of published systematic reviews and meta-analyses

Course structure:

Lectures: Theoretical background on methodology and key concepts

E-learning: Online video modules to support self-paced learning

Practical sessions: Group and individual work focused on real-world examples

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Other courses with overlapping topics (obligatory, optional, or elective courses) in interdisciplinary areas. To minimalize overlaps, topics should be coordinated. Code(s) of courses (to be provided): None

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Requirements for attendance, options for making up missed sessions, and method of absence justification: Full attendance is required. Completing additional e-learning materials are required to make up missed courses.

Assessment methods during semester (number, topics, and dates of midterms and reports, method of inclusion in the course grade, opportunities for make-up and improvement of marks):

(**number, topics, and dates of midterms and reports, method of inclusion in the course grade, opportunities for make-up and improvement of marks)**

Attendance, group work activity.

Number and type of individual assignments to be completed, submission deadlines: January 26, 2026

Requirements for the successful completion of the course: Attendance and passed project work.

Type of assessment:

Project work

Examination requirements (list of examination topics, subject areas of tests, lists of mandatory parameters, figures, concepts and calculations, practical skills, optional topics for the project assignment recognized as an exam and the criteria for its completion and evaluation)

All materials will be provided during the course

Method and type of grading (Share of theoretical and practical examinations in the overall evaluation. Inclusion of the results in the end-of-term assessment. Possibilities of and conditions for offered grades.): (Share of theoretical and practical examinations in the overall evaluation, Inclusion of the results in the end-of-term assessment, Possibilities of and conditions for offered grades)

Passed/ Failed – practical exam based on the project work

Signature of habilitated instructor (course coordinator) announcing the course:

Prof. Dr. Péter Hegyi

Signature of the director of the host institution:

Prof. Dr. Péter Hegyi

Date of submission:

8th August 2025