



Conteúdo Programático de Componente Curricular

Componente Curricular:	Introduction to Systematic Reviews and Meta-Analysis of Interventions	Código:	FIS0031		
Tipo de Componente:	<input type="checkbox"/> Atividade <input type="checkbox"/> Disciplina <input checked="" type="checkbox"/> Módulo				
Nível:	<input checked="" type="checkbox"/> Mestrado <input type="checkbox"/> Doutorado			Obrigatória:	Não
Créditos:	02	Carga Horária Teórica:	32h	Carga Horária Prática:	0h
Carga Horária em idioma estrangeiro:	32h - Inglês (100%)		Carga Horária de forma remota síncrona:	0h	
Área de Concentração:	Avaliação e Intervenção Fisioterapêutica e Aspectos Funcionais				
Docente Responsável:	Magno Markus Ferreira Formiga Gonçalves de Oliveira e Rafael Barreto de Mesquita				
Justificativa:	<p>The proposed course is a crucial step towards internationalization and enhancing the program's current standing. Systematic reviews and meta-analysis are cornerstone methodologies in evidence-based healthcare, widely recognized and employed worldwide. By offering this course fully in English, we not only provide students with essential skills for developing robust research but also improve their English language proficiency, an important asset for disseminating research findings and engaging in international academic discourse. The proposed course aligns with the broader goals of academic excellence, research dissemination, and preparing our students for potential international collaborations.</p>				
Objetivos:	<p>Objetivo Geral: Understand the role of systematic reviews and meta-analyses in healthcare; Explain the essential steps of conducting a systematic review and meta-analysis.</p> <p>Objetivos Específicos: Formulate a specific study question and define inclusion and exclusion criteria; Conduct an electronic search using the appropriate terms in different databases; Gain familiarity with tools for assessing risk of bias in randomized controlled trials; Run basic analyses and interpret the output; Appraise the quality of a systematic review; Assess the quality of evidence using the GRADE system; Describe the challenges associated with performing and interpreting systematic reviews.</p>				
Ementa:					



This course is an overview of the concepts necessary for performing systematic reviews and meta-analysis of interventional studies, covered in sufficient detail to enable students to conduct their own reviews upon completion of the course. Course content will include step-by-step instruction in how to conduct systematic reviews and meta-analysis, including developing a focused research question, defining inclusion/exclusion criteria, developing literature search strategies, data extraction and management, and statistical methods for meta-analysis. Additional topics covered will include how to determine when meta-analysis may be useful, choosing a meta-analytic method, study quality assessment, exploration of heterogeneity, evaluation of potential sources of bias, and presentation of results.

Conteúdo Programático:

Class 1 - Introduction to Systematic Reviews

- In-class small group exercise (25%)

Class 2 - Conducting and Reporting Systematic Reviews

Class 3 - Searching and Selecting Studies

- In-class small group exercise (25%)

- Due: Homework assignment 1 (25%)

Class 4 - Collecting Data and Effect Measures (part 1)

Class 5 - Collecting Data and Effect Measures (part 2)

Class 6 - Preparing for Synthesis and Meta-Analyses

Class 7 - Risk of Bias in Randomized Trials, Certainty of the Evidence

Class 8 - In-class Small Group Presentations

- In-class small group 10-minute presentations, followed by 10-minute discussions (25%)

Forma de avaliação:

Grades will be based on points accumulated on four assignments. There will be a total of 100 total possible points, distributed as follows:

- *In-class small-group exercise 1 (25%):* Students will be instructed to formulate a research question in small groups, look for ways to refine the questions and present their questions and report any difficulties to the whole class.

- *Homework Assignment 1 (25%):* Students should read chapter 2 of the Cochrane Handbook; refine the study question that they have chosen for the course; develop their inclusion/exclusion criteria; do a quick search on the Cochrane Database of Systematic Reviews to check if a systematic review or protocol on their topic has already published; download RevMan; hand in a printout of their study question and inclusion/exclusion criteria (i.e., complete all the sections in RevMan up to "Search methods for identification of studies").

- *In-class small-group exercise 2 (25%):* Students will be instructed to generate a short list of keywords and subject headings in small groups to use in their search, combining the terms with the appropriate Boolean operators.



- *In-class small-group presentation (25%)*: Students should present the methods of their planned study using PRISMA guidelines, including eligibility criteria, information sources, search strategy, selection process, data collection and synthesis processes.

To pass the course, a minimum score of 50% (i.e., a grade equal to or higher than 5.0 points) and at least 75% attendance is required.

Sobre o uso de Inteligência Artificial (IA):

According to *PORTARIA* No. 39/PRPPG/UFC, OF OCTOBER 1, 2025, and *PORTARIA* No. 19/PPGFISIO, OF FEBRUARY 10, 2026, the use of Artificial Intelligence (AI) tools in academic work related to graduate course components at UFC shall observe:

- I – Transparency;
- II – Human authorship;
- III – Privacy, security, and confidentiality;
- IV – Academic integrity;
- V – Fairness and non-discrimination;
- VI – Content accountability;
- VII – Ethically guided use;
- VIII – Secure implementation.

The use of AI is prohibited for:

- I – generating original content, interpretations, or critical analyses;
- II – drafting substantive sections of the work (novel methods, testing, results, discussion, and conclusions);
- III – fabricating, altering, manipulating, or “enhancing” data, results, images, or graphs;
- IV – inserting unverified references or masking plagiarism;
- V – producing undeclared material in violation of the provisions of the *portarias*.

For this course component, the use of AI in each assessed activity shall be **permitted on a case-by-case basis, according to the nature of the assessment activity.**

Bibliografia:

1. Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). Cochrane Handbook for Systematic Reviews of Interventions version 6.4 (updated August 2023). Cochrane, 2023. Available from <https://training.cochrane.org/handbook>
2. Guyatt, G. H., Oxman, A. D., Kunz, R., Atkins, D., Brozek, J., Vist, G., Alderson, P., Glasziou, P., Falck-Ytter, Y., & Schünemann, H. J. (2011). GRADE guidelines: 2. Framing the question and deciding on important outcomes. *Journal of clinical epidemiology*, 64(4), 395–400. <https://doi.org/10.1016/j.jclinepi.2010.09.012>



3. Sterne, J. A. C., Savović, J., Page, M. J., Elbers, R. G., Blencowe, N. S., Boutron, I., Cates, C. J., Cheng, H. Y., Corbett, M. S., Eldridge, S. M., Emberson, J. R., Hernán, M. A., Hopewell, S., Hróbjartsson, A., Junqueira, D. R., Jüni, P., Kirkham, J. J., Lasserson, T., Li, T., McAleenan, A., ... Higgins, J. P. T. (2019). RoB 2: a revised tool for assessing risk of bias in randomised trials. *BMJ (Clinical research ed.)*, 366, l4898. <https://doi.org/10.1136/bmj.l4898>.

*References will be reviewed and updated annually.