



**Study program:** Doctoral Academic Studies in Biomedical Sciences

**Name of the subject:** CURRENT ISSUES IN PAIN MEDICINE

**Teacher(s):** Dragana R. Radovanović, Biljana G. Drašković, Ljiljana V. Gvozdrenović, Sanja V. Vicković, Snežana T. Tomašević Todorović, Svetlana S. Simić, Aleksandar Š. Kopitović, Aleksandar Lj. Knežević

**Status of the subject:** elective

**Number of ECTS points:** 20

**Condition:** -

**Goal of the subject**

The main goal of the education is to introduce students with current events in pain medicine, as well as education in the field of scientific research.

**Outcome of the subject**

Introducing students to contemporary trends in methods of diagnostics and therapy for patients with acute and chronic pain, as well as clinical research projects whose implementation is underway.

Application of knowledge and skills in scientific research work through defining the topic, realization and presentation of the results of scientific research. Each candidate during doctoral studies should write one paper in a journal with an impact factor.

**Content of the subject**

*Theoretical lectures*

1. Pain assessment tools: unidimensional and multidimensional pain ratings scales
2. Pain assessment in children
3. Recent management advances in acute postoperative pain
4. Multimodal approach to acute perioperative pain management
5. PAIN OUT network (international non-profit network for improving the treatment of pain in adults and children) - our experience
6. Chronic noncancer pain - prevention and treatment
7. Interventional pain procedures
8. Current approach to cancer pain management
9. Mechanisms, impact and management of pain in rheumatic diseases
10. Conditioned pain modulation
11. Central sensitization
12. Clinical and pathophysiological aspects of headache
13. Painful diabetic neuropathy
14. The role of acupuncture in treating acute and chronic pain
15. Acupuncture for the management of headache

*Practical lectures*

1. Introduction to contemporary diagnostic methods and therapeutic procedures in the pain management
2. Training for scientific research work through problem identification, literature review, hypothesis setting, defining research goals and methodologies
3. Introduction to current scientific research projects whose realization is in progress.
4. Writing a seminar paper.

**Recommended literature**

1. Chou R, Gordon DB, de Leon-Casasola OA, Rosenberg JM, Bickler S, Brennan T, et al. Management of postoperative pain: A clinical practice guideline from the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council. *J Pain.* 2016;17:131-57.
2. Beverly A, Kaye AD, Ljungqvist O, Urman RD. Essential elements of multimodal analgesia in enhanced recovery after surgery (ERAS) guidelines. *Anesthesiol Clin.* 2017;35:e115-e143.
3. Mayer TG, Neblett R, Cohen H, et al. The development and psychometric validation of the central sensitization inventory. *Pain Pract.* 2012;12:276-285
4. Turk D, Willson H, Cahana A. Treatment of chronic non-cancer pain. *Lancet* 2011; 377:2226–35.

5. Fallon M, Giusti R, Aielli F, Hoskin P, Rolke R, Sharma M, Ripamonti CI Management of cancer pain in adult patients: ESMO Clinical Practice Guidelines. Ann Oncol. 2018;29:iv166-iv191.
6. Boulton AJM, Vileikyte L. Painful diabetic neuropathy in clinical practice. Springer-Verlag London, 2011. ISBN: 0857294873,9780857294876
7. Levin M. Comprehensive review of headache medicine. Oxford University Press, USA, Year: 2008. ISBN: 0195366735,9780195366730,9780199710560
8. Lin Y-C, Hsu E S-Z.(eds.) Acupuncture for Pain Management. Springer Heidelberg Dordrecht London New York. ISBN 978-1-4614-5275-1 (eBook)

<b>Number of active classes</b>	<b>Theory: 60</b>	<b>Practice: 45</b>
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**Methods of delivering lectures**

Lectures. Practical work: demonstration and active participation of students in the in the Pain management. Writing a seminar paper.

**Evaluation of knowledge (maximum number of points 100)**

activities during lectures: 10

practices: 10

colloquium: 20

seminar: 10

written exam: 20

oral exam 30