Univerza v Mariboru

Fakulteta za naravoslovje in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	**Seminar**
Course title:	**Seminar**

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
FIZIKA		2.	4.
PHYSICS		2.	4.

Vrsta predmeta / Course type	Obvezni za vse module
Univerzitetna koda predmeta / University course code:	

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Lab. vaje Laboratory work	Terenske vaje Field work	Samost. delo Individ. work	ECTS
	10				**290**	**10**

Nosilec predmeta / Lecturer:	**Aleš Fajmut**

Jeziki / Languages:	**Predavanja / Lectures:**	slovenski/Slovenian
	Vaje / Tutorial:	

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Ni posebnih zahtev.	No special prerequisites.

Vsebina:	**Content (Syllabus outline):**

Študent pripravi javno seminarsko predavanje pred kolegi študenti in ostalo znanstveno javnostjo, v katerem predstavi svoje raziskovalno delo, ki je usmerjeno k izdelavi doktorske disertacije. Študent objavi pred predavanjem povzetek predavanja in vabilo na spletnih straneh Oddelka za fiziko FNM ter na oglasnih deskah oddelkov za fiziko fakultet in institutov. Vodji seminarja odda študent v pisni obliki daljši povzetek predavanja, ki mora biti pripravljen v takšni obliki in strukturi, kot bi jo zahtevala ena izmed znanstvenih revij za objavo članka. Seminar je lahko napisan in predstavljen tudi v angleščini.	Students prepares public lecture for colleagues and scientific community. He/she represents his/her research with the emphasis on the future doctoral thesis. Student announces his lecture with the abstract and the invitation on the web site of the Department of Physics FNM and on the boards of other Physics departments on the Faculties and the Institutes. Student also prepares a longer summary of the lecture that should be in such form as for acceptance of the paper in one of the scientific journals. The Seminar may be written and presented in English.

Temeljni literatura in viri / Readings:

1) Katz, M. J., 2007: From research to manuscript. A guide to scientific writting. Springer, 152 str.
2) Ren, Z.: Navodila za pripravo podiplomskega dela, Maribor : Fakulteta za strojništvo, 2004.
3) Meloy, J. M.: Writing the qualitative dissertation : understanding by doing, Mahwah (New Jersey), London : L. Erlbaum, Associates, cop. 2002.
4) Day, R. A., Gastel, B. How to write and publish a scientific paper 6th ed., Cambridge University Press, Cambridge 2006

Cilji in kompetence:	**Objectives and competences:**
Cilj predmeta Seminar je, da študent dokaže komunikativnost v znanstvenem okolju in sposobnost predstavitve pridobljenih znanstvenih izsledkov v obliki seminarskega predavanja in v pisni obliki na ravni objave članka v znanstveni reviji.	At the subject Seminar student can prove his communication skills in the scientific society and his ability to present results from the research work in the form of public lecture and in written from at the level of scientific paper.

Predvideni študijski rezultati:	**Intended learning outcomes:**
Znanje in razumevanje: • vseh relevantnih teoretičnih in praktičnih znanj Prenesljive/ključne spretnosti in drugi atributi: • sposobnost predstavitve pridobljenih raziskovalnih izsledkov s področja fizike kolegom in znanstveni javnosti • mednarodna komunikativnost v vrhunskem znanstvenem in strokovnem okolju	Knowledge and understanding: • of relevant theoretical and practical knowledge. Transferable/Key Skills and other attributes: • Capability of public presentation of research results from the field of physics to colleagues and scientific community • Capability of communication in the top-level scientific community

Metode poučevanja in učenja:	Learning and teaching methods:
Seminarska predavanja kolegov študentov.	Seminarska predavanja kolegov študentov.

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
Način (pisni izpit, ustno izpraševanje, naloge, projekt)		Type (examination, oral, coursework, project):
• Ustna predstavitev	**50%**	• Oral presentation
• Pisno poročilo	**50%**	• Written report

Reference nosilca / Lecturer's references:

1. DOBOVIŠEK, Andrej, FAJMUT, Aleš, BRUMEN, Milan. Strategy for NSAID administration to aspirin-intolerant asthmatics in combination with PGE [sub] 2 analogue: a theoretical approach. *Medical & biological engineering & computing*, ISSN 0140-0118. [Print ed.], 2012, vol. 50, no. 1, str. 33-42, doi: 10.1007/s11517-011-0844-x. [COBISS.SI-ID 18845192]

2. MBIKOU, Prisca, FAJMUT, Aleš, BRUMEN, Milan, ROUX, Etienne. Contribution of Rho kinase to the early phase of the calcium-contraction coupling in airway smooth muscle. *Experimental physiology*, ISSN 0958-0670, 2011, vol. 96, issue 2, str. 240-258, ilustr., doi: 10.1113/expphysiol.2010.054635. [COBISS.SI-ID 18009864]

3. FAJMUT, Aleš, BRUMEN, Milan. MLC-kinase/phosphatase control of Ca[sup]2+ signal transduction in airway smooth muscles. *Journal of theoretical biology*, ISSN 0022-5193, 2008, vol. 252, no. 3, str. 474-481. http://dx.doi.org/10.1016/j.jtbi.2007.10.005, doi: 10.1016/j.jtbi.2007.10.005. [COBISS.SI-ID 15856392]

4. FAJMUT, Aleš, BRUMEN, Milan, SCHUSTER, Stefan. Mathematical modelling of the interactions between Ca[sup]2+, calmodulin and myosin light chain kinase. *FEBS letters*, ISSN 0014-5793. [Print ed.], 2005, 579, str. 4361-4366. [COBISS.SI-ID 14189576]

5. FAJMUT, Aleš, JAGODIČ, Marko, BRUMEN, Milan. Mathematical modeling of the myosin light chain kinase activation. *Journal of chemical information and modeling*, ISSN 1549-9596. [Print ed.], 2005, [Vol.] 45, str. 1605-1609. [COBISS.SI-ID 14354184]