

# Doctoral seminar - course description

General information	
Course name	Doctoral seminar
Course ID	13.2-WF-FiAT-DS-S16
Faculty	<a href="#">Faculty of Physics and Astronomy</a>
Field of study	Physics and Astronom
Education profile	academic
Level of studies	PhD studies
Beginning semester	winter term 2018/2019

Course information	
Semester	7
ECTS credits to win	2
Course type	obligatory
Teaching language	english
Author of syllabus	<ul style="list-style-type: none"><li>prof. dr hab. Wiesław Leoński</li></ul>

Classes forms					
The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Seminar	30	2	-	-	Credit

## Aim of the course

- To teach students how to prepare the presentation and show the results discussed in Ph.D. dissertations.
- Preparation for writing and editing Ph.D. dissertation.
- Gaining the ability of critical use of scientific articles and other materials.
- Acquiring the skills in using various databases and information systems.
- Broadening of already learned general knowledge, especially in the field of physics, astrophysics, and medical physics especially in topics related to the Ph.D. dissertation.

## Prerequisites

Skills and knowledge gained during completed courses of the studies.

## Scope

- Topics of the contemporary research in physics (especially in the fields related to the Ph.D. dissertation).
- Currently used scientific literature databases and resources such as Scopus, Web of Science, arXiv, ADS, MathSciNet, etc.
- Fundamental and practical knowledge concerning copyright regulations.

## Teaching methods

- Studies of scientific literature by the student.
- Preparing and demonstration by the student his (her) presentations, primarily related to the topics of the Ph.D. dissertation.
- Discussions concerning the content and form of materials presented by the students.
- Analysis of the possibility of using the results demonstrated by the students in the prepared dissertations.

## Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
The student can use at least one foreign language and is skilled in English in such a way that can communicate with partners.	<ul style="list-style-type: none"><li>• <a href="#">SD_W07</a></li></ul>	<ul style="list-style-type: none"><li>• Preparing and demonstration students' presentations. Discussions during the seminar.</li></ul>	<ul style="list-style-type: none"><li>• Seminar</li></ul>
The student can formulate the research problem on his own, and propose and carry out the research to solve it.	<ul style="list-style-type: none"><li>• <a href="#">SD_U01</a></li></ul>	<ul style="list-style-type: none"><li>• Preparing and demonstration students' presentations. Discussions during the seminar.</li></ul>	<ul style="list-style-type: none"><li>• Seminar</li></ul>
The student has gained general and advanced knowledge in the field of physics and (or) astronomy, and specialist one related to the topics of his/her Ph.D. dissertation.	<ul style="list-style-type: none"><li>• <a href="#">SD_W01</a></li></ul>	<ul style="list-style-type: none"><li>• Preparing and demonstration students' presentations. Discussions during the seminar.</li></ul>	<ul style="list-style-type: none"><li>• Seminar</li></ul>
The student understands the most complex dependencies appearing in physics and (or) astronomy and in other affined fields (including the interdisciplinary relations).	<ul style="list-style-type: none"><li>• <a href="#">SD_W03</a></li></ul>	<ul style="list-style-type: none"><li>• Preparing and demonstration students' presentations. Discussions during the seminar.</li></ul>	<ul style="list-style-type: none"><li>• Seminar</li></ul>

Outcome description	Outcome symbols	Methods of verification	The class form
The student knows the latest theories, research methods and ideas in the field of physics and (or) astronomy, and specialist knowledge allowing him/her to create new theories.	• <a href="#">SD_W02</a>	• Preparing and demonstration students' presentations. Discussions during the seminar.	• Seminar
The student can critically compare obtained results to those of other researchers, and judge their quality and importance.	• <a href="#">SD_U02</a>	• Preparing and demonstration students' presentations. Discussions during the seminar.	• Seminar
The student knows the methodology of physics and (or) astronomy such a way that he/she is able to plan the way in which research problems will be solved.	• <a href="#">SD_W04</a>	• Preparing and demonstration students' presentations. Discussions during the seminar.	• Seminar
The student understands the need for continuous self-education and needs such process as the necessary condition of taking part in the scientific field development.	• <a href="#">SD_K01</a>	• Preparing and demonstration students' presentations. Discussions during the seminar.	• Seminar
The student can present the results of his research himself.	• <a href="#">SD_U03</a>	• Preparing and demonstration students' presentations. Discussions during the seminar.	• Seminar
The student has gained the necessary knowledge concerning copyright regulations, ethics, and rules determining the use of various scientific sources.	• <a href="#">SD_W09</a>	• Preparing and demonstration students' presentations. Discussions during the seminar.	• Seminar

## Assignment conditions

- Preparing and demonstration of reports related to the topics of the seminar. The number of such presentations defines the tutor during the first meeting with students.
- Active participations in discussions concerning demonstrated presentations.

## Recommended reading

1. Scientific articles recommended by the tutor.
2. Academic monographs devoted to the topics presented during the seminar.
3. Textbooks and articles devoted to the methods and technics applied during research performed by the students.
4. Materials which are available at the webpage [arxiv.org](http://arxiv.org).

## Further reading

none

## Notes

none

Modified by dr Joanna Kalaga (last modification: 29-08-2018 13:21)

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