

## RTU Course "Scientific workshop"

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**General data**

Code	RDE700
Course title	Scientific workshop
Course status in the programme	Compulsory/Courses of Limited Choice
Responsible instructor	Jurģis Poriņš
Academic staff	Vjačeslavs Bobrovs Oskars Ozoliņš
Volume of the course: parts and credits points	2 parts, 6.0 Credit Points, 9.0 ECTS credits
Language of instruction	LV, EN, DE
Annotation	The content of scientific workshop comprises the following: presentation and discussion about the problems in the next generation telecommunications networks based on the analysis of the scientific literature, presentation and discussion of PhD analytical and experimental research results, the latest in communications and measurement methodology reviews, the latest telecommunications software for the analysis and their application reviews, guest speaking, and promotion work discussions.
Goals and objectives of the course in terms of competences and skills	Objectives of workshops are as follows: to develop ability of understanding of scientific papers in the field of telecommunications, the development of doctoral students the ability to analyze and discuss topical issues and present their scientific work results.
Structure and tasks of independent studies	Analysis of scientific literature, unassisted presentations in workshops.
Recommended literature	Periodiskie zinātniskie izdevumi (OSA Journal of Optical Communications and Networking, IEEE sērijas u.c. žurnāli), grāmatas, konferenču un tēžu krājumi, interneta resursi, iekārtu tehniskie apraksti par telekomunikāciju jautājumiem.
Course prerequisites	Master courses in Electronics, Telecommunications and related specialities

**Course contents**

Content	Full- and part-time intramural studies		Part time extramural studies	
	Contact Hours	Indep. work	Contact Hours	Indep. work
Novelties and the latest developments in the telecommunications network, their analysis	16	0	0	0
Analysis of ways to increase of information transmission capacity and speed in telecommunications networks	16	0	0	0
Advances in optical information processing and transmission	16	0	0	0
Achievements in next-generation fiber-optic transmission network development	16	0	0	0
The latest developments in optical element design and its related problems	16	0	0	0
A new traffic control algorithm development trends and possible solutions	16	0	0	0
<b>Total:</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Learning outcomes and assessment**

Learning outcomes	Assessment methods
The ability to independently access, analyze and discuss topical issues in the telecommunications field, using a variety of information sources.	The subject is assessed with test. Test can be obtained in speeches and participation in seminars and demonstration of understanding of the problems.

**Study subject structure**

Part	CP	Hours per Week			Tests		
		Lectures	Practical	Lab.	Test	Exam	Work
1.	3.0	0.0	3.0	0.0	*		
2.	3.0	0.0	3.0	0.0	*		