

Документ подписан простой электронной подписью
 Информация о владельце:
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 Должность: и.о. директора Института цифрового развития
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Discipline annotation

Discipline name	Электроника и схемотехника / Electronics and circuitry
Summary	Semiconductor Diodes. Bipolar and field-effect transistors, parameters of semiconductor devices. Electronic amplifiers. Feedback in amplifiers. Differential operational amplifiers. Nonlinear and parametric signal conversion. Generators of harmonic and relaxation oscillations. Pulse and digital devices. Logical elements of digital devices. Triggers, their circuitry. Semiconductor storage devices. Microprocessors.
Learning outcomes of the discipline	<ul style="list-style-type: none"> - highlights the necessary physical principles and models to solve professional tasks; - evaluates the necessary physical principles and models to solve professional tasks - applies the known physical principles and models to solve professional tasks using electronic devices - fully applies the necessary physical principles to solve professional tasks; - correctly applies the necessary models to solve professional tasks; - knows the sequence of steps to use the necessary physical principles and models to solve professional tasks. - models known processes occurring in electronic devices to solve professional tasks
Workload, c. u.	4c. u.
Reporting Forms	Exam - 4th semester
List of essential and supplementary literature necessary for mastering the discipline	
Essential literature	<p>1. Neiman, V. Yu; Electrical and electronics engineering. Internet testing of basic knowledge. Part 3. Theory and methods of analysis of linear circuits of sinusoidal current. Electronic source: Textbook / V. Yu. Neiman. - Novosibirsk: Novosibirsk State Technical University, 2014. - 130 p. - The book is in the premium version of IPR BOOKS ELS. - ISBN 978-5-7782-2434-6</p>
Supplementary literature	<p>1. Zemlyakov, V. L; Electrical and electronics engineering: textbook / V. L. Countrymen; Federal Agency for Education of the Russian Federation; Federal State Educational Institution of Higher Professional Education "Southern Federal University"; Faculty of High Technologies. - Rostov-on-Don: Southern Federal University Publishing House, 2008. - 304 p. - http://biblioclub.ru/. - Bibliography in the book. - ISBN 978-5-9275-0454-1.</p> <p>2. Kuzovkin, V. A; Theoretical electrical engineering / V. A. Kuzovkin. - Moscow: Logos, 2006. - 495 p. - ISBN 5-98704-092-2</p>