

APPROVED  
Director of INDT

\_\_\_\_\_ V.N. Borikov  
" \_\_\_\_ " \_\_\_\_\_ 2015

## COURSE DESCRIPTION

1. Course name Microelectronics 1.1 / 2.1

2. Course code ДИСЦ.В.М14 / ДИСЦ.В.М15

3. Course of GEP 11.03.04 Electronics and nanoelectronics

4. Training profile (specialization, syllabus)  
Industrial Electronics

5. Qualification (degree): Bachelor

6. Department in charge Industrial and Medical Electronics of Institute  
of Non-Destructive Testing

7. Lecturer Ogorodnikov Dmitriy Nikolaevich  
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9. 3. Learning outcomes of the Discipline

DR1 To solve professional tasks in the field of microelectronics;

DR2 To perform complex engineering projects in the field of microelectronics;

DR3 To present and to defend the results of engineering activity.

10. Course description

Introduction

Section 1. Operational Amplifiers. Classification.

Section 2. Application of Operational Amplifiers. Linear Functional Converters.

Section 3. Application of Operational Amplifiers. Nonlinear Functional Converters.

Section 4. Analog Multipliers

Section 5. Comparators

Section 6. IC Generators

11. Year 3 Semester 5 / 6 Number of credits 3 / 6

12. Prerequisites Theory of electric circuits, Continuous action electronic circuits

13. Corequisites Digital devices

14. Type of midterm assessment credit test, exam

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