**Course Title (in English)**
Quantum Theory

**Course Title (in Russian)**
Квантовая теория

**Lead Instructor(s)**
Losyakov, Vladimir

**Status of this Syllabus**
The syllabus is a work in progress (draft)

**Contact Person**
Losyakov Vladimir

**Contact Person's E-mail**
losyakov@lpi.ru

---

### 1. Annotation

**Course Description**
The course is addressed to students who know the basics and basic principles of quantum theory. Physical applications of quantum theory on examples of specific problems will be considered. It is planned to study the following issues: supersymmetric quantum mechanics, motion of a charged particle in a uniform and constant magnetic field, electromagnetic field interacting with an external source, the Caldeira-Leggett model, the band structure of one dimensional systems, the basics of quantum Informatics. As can be seen from the list, the purpose of the course is to prepare the student for the study of quantum field theory. Students will be asked to choose their own topics to be discussed.

**Course Prerequisites**
Students should have knowledge of basic principles of quantum theory.

---

### 2. Structure and Content

**Course Academic Level**
Master-level

**Number of ECTS credits**
6

---

### 3. Assignments

---

### 4. Grading

**Grading Scale**
5. Basic Information

6. Textbooks and Internet Resources

7. Facilities

8. Learning Outcomes

Do you want to specify outcomes in another framework?

Knowledge-Skill-Experience is good enough

9. Assessment Criteria

10. Additional Notes