

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-3002	Quantum Mechanics	4.00	2.00	0.00	5.00	7.00
Course Detail						
Course Language	: Turkish					
Qualification Degree	: Bachelor					
Course Type	: Compulsory					
Preconditions	: Not					
Objectives of the Course	: To learn quantum mechanics.					
Course Contents	: Angular Momentum, The Schrodinger Equation in Three Dimension, Hydrogen Atom, The Interaction of Charged Particles with the Electromagnetic Field, Matrix Representation of Operators, Spin, The Interaction of Charged Particles with the Electromagnetic Field, Time-Independent Perturbation Theory, Identical Particles.					
Recommended or Required Reading	: Stephen Gasiorowicz, "Quantum Physics", 2003, John Wiley & Sons Inc., Amerika R. H. Dicke and J. P. Wittke, " Introduction to Quantum Mechanics ", 1992, Addison Wesley, San Francisco D. J. Griffiths, " Introduction to Quantum Mechanics", 2005, Pearson Education Inc., Amerika R.L.Liboff, "Introductory Quantum Mechanics", 2003, Pearson Education, Inc., San Francisco					
Planned Learning Activities and Teaching Methods	: Written exam, homework and presentations. (60% Final, 40% midterm)					
Recommended Optional Programme Components	: Knowledge of the fundamental physics courses is important.					
Instructors	: Prof. Dr. Kıvanç Sel					
Instructor's Assistants	: Assoc. Prof. Dr. Kıvanç SEL					
Presentation Of Course	: Face to face					

Course Outcomes

Upon the completion of this course a student :

- 1 1) Apply the operator notation in solutions
- 2 2) Solve the problems of potentials and the harmonic oscillators
- 3 3) Explain the properties of general formalism of quantum mechanics
- 4 4) Define three dimensional quantum systems
- 5 5) Make calculation with approximation methods

Preconditions

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