

Syllabus(2026-1st semester)

Course	Quantum Mechanics I	Department	Physics	Office Hours	화4교시 목5교시
Course No. and Class	G11970-01	Hours	3.0	Academic Credit	3.0
Professor	Changrim Ahn		Office		
Telephone			E-MAIL		
Value of competence			Keyword		

1. Course Description

Quantum Mechanics I
(My home page: alps.ewha.ac.kr)

2. Prerequisites

Undergraduate Quantum Mechanics

3. Course Format

Lecture	Discussion/Presentation	Experiment/Practicum	Field Study	Other
100%	0%	0%	0%	0%

- explanation of course format :

4. Course Objectives

Fundamental formulation and concept of quantum mechanics

5. AI Use Principles and Guidelines

*The following items present example principles and guidelines regarding the use of AI in a course. The course professor may revise and supplement them as necessary, depending on the characteristics and needs of the course.

1) General Principles for AI Use

- This course is conducted on the premise of learners' responsible use of AI and academic integrity. Learners are expected to understand and comply with the AI Ethics Guidelines for Learners posted on the THE BEST Integrated Educational Support Service website.

<https://cyber.ewha.ac.kr/ethicsguide.php>

- Learners must adhere to the scope of permitted AI use and prohibited practices as specified by the course professor according to the purpose of each assignment, assessment, or learning activity. AI may be used only within the permitted scope.

- When learners use AI to complete assignments, they must clearly disclose the use of AI and submit a Disclosure Statement.

※ The Disclosure Statement includes information such as the purpose of AI use, the stage(s) at which AI was used, the content generated or assisted by AI, and the extent of AI's contribution to the final output.

Examples of Disclosure Statements are available on the THE BEST Integrated Educational Support Service website.

2) Examples of Permitted AI Use

- Information and resource search
- Idea brainstorming
- Improvement of grammar, writing style, and translation
- Data analysis
- Coding and debugging support
- Others ()

3) Examples of Prohibited AI Use

- Submitting, in whole or in part, AI-generated content as learning outputs (e.g., reports, essays, presentation materials) without the learner's own revision or supplementation
- Using AI during examinations, quizzes, or other assessments without the course professor's prior permission
- Submitting AI-generated fabricated citations, references, or sources as if they were authentic materials
- Others ()

4) Consequences for Misuse

- Violations of the AI use policy may be regarded as academic misconduct.
- In the event of academic misconduct, the course professor will determine appropriate follow-up actions after a comprehensive review of the student's explanation, AI usage records, and the writing or development process.

6. Evaluation System

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Midterm Exam	Final Exam	Quizzes	Presentation	Projects	Assignments	Participation	Other
50%	50%	0%	0%	0%	0%	0%	0%

* Evaluation of group projects may include peer evaluations.

- explanation of evaluation system

Decided only by written exams

7. Required Materials

J.J. Sakurai, Modern Quantum Mechanics

8. Supplementary Materials**9. Optional Additional Readings****10. Course contents**

Week	Date	Topics, Materials, Assignments
Week 1	2026/03/03(TUE)	Chap 1. Fundamental Concepts kets and bras, change of basis
Week 2	2026/03/10(TUE)	Chap 1. Fundamental Concepts position and momentum basis
Week 3	2026/03/17(TUE)	Chap 2. Quantum Dynamics time evolution and Schrodinger equation
Week 4	2026/03/24(TUE)	Chap 2. Quantum Dynamics analytic and numerical solutions
Week 5	2026/03/31(TUE)	Chap 2. Quantum Dynamics path integrals
Week 6	2026/04/07(TUE)	Chap 2. Quantum Dynamics potential and gauge transformation
Week 7	2026/04/14(TUE)	Mid Term exam
Week 8	2026/04/21(TUE)	Chap 3. Theory of Angular Momentum Rotations, Euler angles
Week 9	2026/04/28(TUE)	Chap 3. Theory of Angular Momentum Angular momentum operators and eigenvectors
Week 10	2026/05/05(TUE)	Children's Day
Week 11	2026/05/12(TUE)	Chap 3. Theory of Angular Momentum Tensor operators
Week 12	2026/05/19(TUE)	Chap 4. Symmetry in Quantum Mechanics Symmetries
Week 13	2026/05/26(TUE)	Chap 4. Symmetry in Quantum Mechanics Symmetries
Week 14	2026/06/02(TUE)	Chap 4. Symmetry in Quantum Mechanics Discrete symmetries: Parity
Week 15	2026/06/09(TUE)	Final exam
Makeup Classes 1	2026/05/05(TUE)	Chap 3. Theory of Angular Momentum (Zoom recorded lecture) Addition of Angular momentum

11. Course Policies

* For laboratory courses, all students are required to complete lab safety training.

12. Special Accommodations

* According to the University regulation #57, students with disabilities can request special accommodation related to attendance, lectures, assignments, and/or tests by contacting the course professor at the beginning of semester. Based on the nature of the students' requests, students can receive support for such accommodations from the course professor and/or from the Support Center for Students with Disabilities (SCSD).

* The contents of this syllabus are not final—they may be updated.