Department of Physics
College of Science
King Faisal University

Study Regulations and Tests

Postgraduate Program

2024/2025

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Study System:

Article Thirty-two

Studying for a postgraduate diploma includes field and applied courses and experimental work that satisfies the

following:

1. The residency period should not be less than of two semesters and not more than four semesters; and
2. The number of credit hours should not be less than 24 hours and not more than 36 hours. The University Council determines the required courses for the diploma degree as well as the name of the diploma degree as per proposal of both the Department and College Councils concerned and the recommendations of the Council of the Deanship of Graduate Studies.

Article Thirty-three

Studying for a master's degree involves one of the following two approaches:

1. Coursework and thesis with a minimum of 24 credit hours in addition to the thesis; and
2. Coursework in some fields of an applied nature with a minimum of 42 credit hours of coursework including a graduation project that consists of a minimum of 3 credit hours. The plan for the master's degree may contain related graduate courses from other departments, whenever possible.

Article Thirty-four

Studying for a Doctoral degree involves one of the following two approaches:

1. Coursework and dissertation with a minimum of 30 graduate credit hours after the master's degree in addition to the dissertation.
2. dissertation and some courses with a minimum of 12 specialized credit hours from the major, seminars, or research sessions as required, according to the student's scientific background and field of study.

Article Thirty-five

An academic year consists of two semesters, each semester having a minimum of 15 weeks, not including the

registration and examination periods, in addition to a summer session that consists of at least 8 weeks during which

the class periods for each course are doubled. The study program in some colleges can be based on an annual system

as per the rules and regulations approved by the University Council without violating the articles of these regulations.

Article Thirty-six

1. The maximum residency period for a master's degree must not be less than four semesters and not more than eight semesters; without including the summer sessions.
2. The residency period for a Doctoral Degree must not be less than six semesters and not more than ten semesters; the summer sessions are not included.

Implementing Rules of Article Twenty-Six:

36-1 It is not counted within the maximum period for obtaining the academic degree under study course in which the department cannot teach courses.

Article Thirty-seven

The maximum residency period for a degree starts from the registration for graduate courses up to the submission

date of a report from the student's supervisor with a copy of the thesis (or any other requirements to the student program) to the Department Chairman.

Article Thirty-eight

A graduate student must take at least 70% of the required credit hours in the University awarding the degree. All work

related to his thesis/dissertation must be completed in the same University.

Article Thirty-nine

A student cannot graduate until all the degree requirements are satisfied, with an overall grade of, at least, 'very good'(B).

Study Plan:

Master of Science in Physics Study Plan

(Two semesters Study Plan)

General	Program Provider:	College of Science-Physics Department
	Major:	Physics
	Name of Degree:	Master of Science in Physics
	Language:	English
	Duration:	Two Years minimum
Requirements	➢ Satisfying the higher education council regulations for master programs in Saudi Arabia. ➢ Obtaining grade very good at least in the bachelor's degree in physics. ➢ Passing the written examination prepared by the department. ➢ Obtaining the English language certificate in: (TOEFL-53), (IELTS-4.5) or (STEP- 75%).	
Study Plans	A student can choose one of the following two tracks: • Thesis track (Courses and thesis) A student must orally defend his/her thesis to get the degree. • Non-Thesis track(Courses-only) A student must pass a comprehensive exam to get the degree.	

Study Plans

1. Thesis track

Compulsory courses:

18 credit hours (6 courses) from this list must be passed.

Course Code	Courses	Credit hours		Courses	Credit hours
0814-501	Mathematical Physics I	3	0814-506	Electrodynamics I	3
0814-503	Classical Mechanics	3	0814-508	Statistical Physics	3
0814-504	Quantum Mechanics I	3	0814-551	Design of Experiments	2
0814-551	Physics self-study	1			

Elective courses:

9 credit hours (3 courses) from the list below must be passed

Plus, 6 credit hours for the thesis.

Table 1:Elective Courses First track

Course Code	Course Title	Required or Elective	* Pre-Requisite Courses	Credit Hours
0814-506	Plasma Physics	Elective	0814-304*	3
0814-511	Solid State Physics 1	Elective	0814-401*	3

0814-512	Solid State Physics 2	Elective	0814-511	3
0814-509	Computational physics 1	Elective	0814-501	3
0814-514	Quantum Field theory 1	Elective	0814-504	3
0814-513	Soft condensed matter	Elective	0814-511	3
0814-516	Superconductivity	Elective	0814-511	3
0814-517	Nano Physics	Elective	0814-511	3
0814-521	Nuclear Physics 1	Elective	0814-504	3
0814-522	Nuclear Physics 2	Elective	0814-521	3
0814-523	Many Particle Physics	Elective	0814-504	3
0814-524	Plasma Physics	Elective	0814-506	3
0814-525	Elementary particle Physics	Elective	0814-504	3
0814-526	High energy Physics	Elective	0814-504	3
0814-531	Atomic and Molecular Physics 1	Elective	0814-504	3
0814-532	Laser Physics	Elective	0814-531	3
0814-541	Theory of Relativity	Elective	0814-503/506	3
0814-571	Astrophysics	Elective	0814-503	3
0814-598	Research project (Track Non Thesis)	Required		3
0814-599	MS thesis	Required		6

2. Non-Thesis track

Compulsory courses:

All courses in the list below must be passed (21 credits)

Course Code	Courses	Credit hours		Courses	Credit hours
0814-501	Mathematical Physics I	3	0814-506	Electrodynamics I	3
0814-503	Classical Mechanics	3	0814-508	Statistical Physics	3
0814-504	Quantum Mechanics I	3	0814-551	Design of Experiments	2
0814-551	Physics self-study	1	0814-598	Research Project	3

Elective courses:

21 credit hours (7 courses) from the list below must be passed.

Table 2:Elective Courses second track

Course Code	Course Title	Required or Elective	* Pre-Requisite Courses	Credit Hours
0814-506	Plasma Physics	Elective	0814-304*	3
0814-511	Solid State Physics 1	Elective	0814-401*	3
0814-512	Solid State Physics 2	Elective	0814-511	3
0814-513	Soft condensed matter	Elective	0814-511	3
0814-516	Superconductivity	Elective	0814-511	3
0814-517	Nano Physics	Elective	0814-511	3
0814-521	Nuclear Physics 1	Elective	0814-504	3
0814-522	Nuclear Physics 2	Elective	0814-521	3
0814-523	Many Particle Physics	Elective	0814-504	3
0814-524	Plasma Physics	Elective	0814-506	3
0814-525	Elementary particle Physics	Elective	0814-504	3
0814-526	High energy Physics	Elective	0814-504	3
0814-532	Laser Physics	Elective	0814-531	3
0814-541	Theory of Relativity	Elective	0814-503/606	3
0814-571	Astrophysics	Elective	0814-503	3
0814-598	Research project	Required		3

* Courses from undergraduate program.

Course Code	Course Title
0814-304	Electromagnetism II
0814-401	Solid State Physics

(Three semesters Study Plan)

1. Thesis track

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours
Level 1	0814-501	Mathematical physics	Required	0814-309	3
	0814-503	Classical mechanics	Required	0814-301	3
	0814-504	Quantum Mechanics (1)	Required	0814-411	3
Level 2	0814-506	Electrodynamics (1)	Required	0814-304	3
	0814-508	Statistical Physics	Required	0814-405	3
	0814-533	Experimental Techniques	Required	0814-511	3
Level 3	0814-5xx	3 credits (from table 1*)	Elective	0814-5xx	3
	0814-5xx	3 credits (from table 1*)	Elective	0814-5xx	3
	0814-599	Thesis	Required	---	0
Level 4	0814-5xx	3 credits (from table 1*)	Elective	0814-5xx	3
	0814-599	Thesis	Required		6

***Table 1:Elective Courses first track**

Course Code	Course Title	Required or Elective	* Pre-Requisite Courses	Credit Hours
0814-506	Plasma Physics	Elective	0814-304*	3
0814-511	Solid State Physics 1	Elective	0814-401*	3
0814-512	Solid State Physics 2	Elective	0814-511	3
0814-513	Soft condensed matter	Elective	0814-511	3
0814-516	Superconductivity	Elective	0814-511	3
0814-517	Nano Physics	Elective	0814-511	3
0814-521	Nuclear Physics 1	Elective	0814-504	3
0814-522	Nuclear Physics 2	Elective	0814-521	3
0814-523	Many Particle Physics	Elective	0814-504	3
0814-524	Plasma Physics	Elective	0814-506	3

0814-525	Elementary particle Physics	Elective	0814-504	3
0814-526	High energy Physics	Elective	0814-504	3
0814-532	Laser Physics	Elective	0814-531	3
0814-541	Theory of Relativity	Elective	0814-503/606	3
0814-509	Computational physics 1	Elective	0814-501	3
0814-571	Astrophysics	Elective	0814-503	3
0814-599	**MS thesis**	Required	---	6

2. non-Thesis track

Level	Course Code	Course Title	Required or Elective	* Pre-Requisite Courses	Credit Hours
Level 1	0814-501	Mathematical physics	Required	0814-309	3
	0814-503	Classical mechanics	Required	0814-301	3
	0814-504	Quantum Mechanics (1)	Required	0814-411	3
Level 2	0814-506	Electrodynamics (1)	Required	0814-304	3
	0814-508	Statistical Physics	Required	0814-405	3
	0814-509	Computational physics 1	Required	0814-501	3
Level 3	0814-533	Experimental Techniques	Required	0814-511	3
	0814-5xx	3 credits (from table 2*)	Elective	0814-5xx	3
	0814-5xx	3 credits (from table 2*)	Elective	0814-5xx	3
	0814-5xx	3 credits (from table 2*)	Elective	0814-5xx	3
	0814-5xx	3 credits (from table 2*)	Elective	0814-5xx	3
	0814-5xx	3 credits (from table 2*)	Elective	0814-5xx	3

Level 4	0814-5xx	3 credits (from table 2*)	Elective	0814-5xx	3
	0814-598	**Research project**	Required		3

***Table 2:Elective Courses second track**

Course Code	Course Title	Required or Elective	* Pre-Requisite Courses	Credit Hours
0814-506	Plasma Physics	Elective	0814-304*	3
0814-511	Solid State Physics 1	Elective	0814-401*	3
0814-512	Solid State Physics 2	Elective	0814-511	3
0814-513	Soft condensed matter	Elective	0814-511	3
0814-516	Superconductivity	Elective	0814-511	3
0814-517	Nano Physics	Elective	0814-511	3
0814-521	Nuclear Physics 1	Elective	0814-504	3
0814-522	Nuclear Physics 2	Elective	0814-521	3
0814-523	Many Particle Physics	Elective	0814-504	3
0814-524	Plasma Physics	Elective	0814-506	3
0814-525	Elementary particle Physics	Elective	0814-504	3
0814-526	High energy Physics	Elective	0814-504	3
0814-532	Laser Physics	Elective	0814-531	3
0814-541	Theory of Relativity	Elective	0814-503/606	3
0814-571	Astrophysics	Elective	0814-503	3
0814-598	**Research project**	Required		3

***Under Graduate courses:**

Course Code	Course Title
0814-304	**Electromagnetism II**
0814-401	**Solid State Physics**

Examination System

Article Forty

Conducting and grading graduate courses for Diploma, Masters, and Doctoral degrees should follow the undergraduate

studies and examination rules and regulations which were approved by the Higher Education Council in its second

meeting of 11/6/1416 H, with the exception of the following:

1. A minimum of "Good" (C) grade is required for the student to pass a course.
2. The Council of the Deanship of Graduate Studies should set appropriate policies as per the Department Council's recommendation and approval of the College Council with regard to alternative examinations and courses requiring a duration of study of more than one semester.
3. Master's students, if required by the program, and Doctoral students must pass a comprehensive oral and written examination after the completion of all the required coursework. This comprehensive examination should be conducted by a specialized committee according to regulations set by the University Council as per the recommendations of the Department Council and the approval of the College Council concerned and the Council of the Deanship of Graduate Studies. This examination should cover the student's major field of study as well as the other related fields if exist. The student will be considered a candidate for the degree in question if he passes the examination at the first sitting. In the event of a failure in the examination or part of it, a second chance will be given to the student within the following two semesters. Failure to pass the examination a second time will incur dismissal from the program.

Implementing Rules of Article Forty:

Tests and assessments:

40-1 Refer to the dates of taking exams and monitoring grades to subjects from the twenty-second to the forty-first) of the university study and examination regulations issued by the Higher Education Council and its executive rules at the university.

40-2 The GPA grade is based on five.

40-3 The first honors class is awarded to the student with a cumulative GPA of (4.75) to (5.00) upon graduation, a second honors degree is awarded to the student with a GPA Cumulative from (4.25) to less than (4.75), and it is required to obtain an honors degree The first or second are:

a- The student should not have failed any course he studied at the university or at another university.

b- The student must have completed the graduation requirements within a maximum period of three years for master's and four years for Ph.D.

40-4 The student will be warned if his cumulative average falls below (3.75).

40-5 A student is considered to have failed the course in one of the following cases:

a- Depriving the student of entering the course test.

b- If the student's score in the course test is less than 70%.

40-6 To the Deanship Council on the recommendation of the College Council - in cases of extreme necessity accepting the excuse of the student who failed the test and allowing him to be given an alternative test during the following semester, and the grade he gets after taking the exam, is given on that the student submits the excuse within a maximum period of two weeks of the following semester for the semester in which the course test was held.

40-7 The student is prohibited from continuing to study the course and entering the final examination a failure (25% of the total lectures in the course if the percentage of his absence exceeds) and the scientific and field lessons specified for the course.

40-8 The student is informed of deprivation at the time, and the instructor submits a report to the head of the department who to which the course belongs, stating that the student is denied the right to continue studying the course. And the dates of absence for lectures and scientific lessons in which the student was absent.

40-9 The head of the department to which the course belongs notifies the Deanship of Graduate Studies, and the head of the department to which the student belongs - if he belongs to another section - by depriving him of continuing in the course study.

40-10 The council of the college to which the course belongs, or whomever he delegates, may, based on a report, submitted by the head of the department (who presents the course) to lift the ban on the student, if he submits the student to the head of the department with an excuse accepted by the College Council, provided that the percentage of absence does not exceed 40% of the total lectures and scientific and field lessons specified for the course.

Final exam:

40-11 If the student cheated in the test, attempted to cheat, or violated the instructions and rules the test procedure will take the following:

a- The course professor or a member of the monitoring committee shall prevent the student from continuing with the course the test, and write a record of the incident, in which he shows exactly what happened, then he refers it to an agent the college to which the course belongs.

b - The Vice Dean shall submit to the Dean of the College a report on the state of fraud or violation, and then the matter is referred to the relevant committees.

Comprehensive exam:

40-12 The comprehensive examination is held in the semester following the semester in which the student has completed all required courses.

40-13 A student may postpone the comprehensive exam for one semester based on a recommendation Deanship of Studies from the specialized department and college councils, and the Deanship of Graduate Studies is informed of this. This course shall be calculated from the total period allowed for postponement in accordance with article (22) of this regulation.

40-14 At the beginning of each academic year, the relevant department council forms a committee for the comprehensive examination not less than three members who meet the conditions of supervision at this stage persons with specialization in the major and sub-specialties (if any).

40-15 The Comprehensive Examination Committee may, when needed, seek assistance from any of the members of the Commission it deems appropriate teaching specialists based on the approval of the relevant department council.

40-16 The Comprehensive Exam Committee determines and revises the Comprehensive Exam topics. Conducting the oral and written exams, determining the response time, and setting the questions correct the answer and prepare the result.

40-17 The student is considered to have passed the comprehensive test if he/she obtains (70%) or more in each of the two tests (oral and written), provided that the oral test score is calculated for students by the average grades of the committee members.

40-18 The comprehensive test results are announced after being approved by the department council and approved by the department the college council no later than one month from the date of holding the last stage of it. A copy of the result is delivered to the Deanship of Graduate Studies as soon as it is issued (by passing) or not.

Useful Links

1. Department web site

https://www.kfu.edu.sa/en/colleges/science/departments/dep_1/pages/about.aspx

2. Deanship of Postgraduate Studies

https://www.kfu.edu.sa/en/Pages/home.aspx

3. Unified Regulation for Postgraduate Studies in Saudi universities

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.kfu.edu.sa/ar/Deans/HigherStudies/Documents/pgsdocs/PGS_Programs_Procedures.pdf

4. Deanship of Admission and Registration

https://www.kfu.edu.sa/en/deans/admissionrecordsdeanship/pages/home-new.aspx