

## Requirements of Scientific thesis

### a) Scientific thesis requirements

- ☒ Attendance in all classes (lessons / seminars / practical lessons / lectures / labs / online courses) is mandatory. Failure to obtain grade of less than 75% of classes usually results in failure to register the thesis.
- ☒ The student must perform an oral presentation of the proposed research to a specialized committee of the department at the end of the second semester.
- ☒ The department assign a committee of three faculty members and pass an oral examination on this research.
- ☒ The submission of the thesis and subsequent examination occur at the end of the fourth semester of the graduate work.

## **b) Outline of Targeted Learning Outcomes of Scientific Thesis**

Upon completion of the research project, the graduate student should be able to

- Implementation of a research-based project.
- Data analysis and compilation of research results.
- Highlight research results in written and oral forms.
- Use research results to promote the theory of education and practice.
- Demonstrate the ability to manage changes through collaboration with others.
- Demonstrate understanding of the ethical issues associated with research.
- Completion of research publication(s) from thesis are required for all students (even if the publication(s) appear after the thesis).

### **c) Brief Description of Academic Advising and Student Support Mechanisms to Complete the Thesis.**

- ☒ Starting from the first semester, the student chooses the track in which he wishes to specialize with the help of the academic advisor
- ☒ In the second semester, the advisor makes sure that the student chooses the courses that serve his specialty.
- ☒ If the student fails to obtain a rate of less than 2.75 GPA (out of 4.0), the student can change the track with the help of the academic advisor.
- ☒ The student must select a thesis advisor before the third semester of graduate work has been completed.
- ☒ The academic advisor arranges a proposed research seminar for the student in the presence of the faculty members, which deals with the research topic of the track.
- ☒ A quarterly report is written by the supervisor at the end of each level indicating the progress of the student in the thesis research project.
- ☒ The student will be able to use the research labs of the physics department.
- ☒ For the Materials and Medical physics track, arrangements should be in place for ready access by staff and thesis students to international major research facilities notably world-class synchrotron radiation sources and neutron scattering sources.

#### **d) Description of Scientific Thesis Assessment Procedures (Including Assessment Rubrics)**

- ☒ The student must present an acceptable thesis of original work in physics, and defend it orally before the thesis committee.
- ☒ Upon completion of writing the thesis, the Graduate Study Committee examine the thesis using the program itenticate.
- ☒ Copies of the final draft of the thesis must be given to the members of committee prior to the deadline published in the academic calendar.
- ☒ The department should send the thesis to an international external examiner.
- ☒ The response of the external referee should be examined by the committee prior to the thesis defense.
- ☒ Written announcement of the thesis defense must be sent to the physics graduate faculty one week prior to the thesis defense.
- ☒ The student spent a whole year for the research (dissertation & viva-voce evaluation, final report: PASS/FAIL), taking into account the external referee's response.
- ☒ The student are urged to publish at least a paper in a peer-reviewed international journal of good standing, even if the publication appears after the thesis.
- ☒ The student is awarded a diploma in physics when completing all course units (if he fails to complete the thesis project)