

# PEDOMAN PELAKSANAAN SKRIPSI

PROGRAM STUDI FISIKA



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# CHAPTER I

## INTRODUCTION

### 1.1 Definition of Thesis

1. The thesis is a mandatory subject as one of the requirements for achieving a bachelor's degree in all study programs at the Faculty of Science and Technology. A thesis is a scientific work resulting from research or scientific studies carried out by students with a weight of 6 credits. The preparation of the thesis is carried out independently by students under the guidance of the thesis supervisor as determined by the Dean's Decree.
2. Thesis Supervisor is a lecturer appointed and tasked with guiding students in completing their Thesis.
3. Proposal is a proposed thesis plan with a theme according to the field of science.
4. Thesis examination is an examination carried out to evaluate students' ability to defend their thesis as a requirement for graduation.

### 1.2 Thesis Terms

1. A thesis is a student's scientific written work that reflects their ability to carry out processes and patterns of scientific thinking through activities:
  - a. **Assessment** : literature, comparison, feasibility, design, and application.

- b. Planning : method, models/programs, tool/*prototype*
  - c. Experimentation: experimentation, data collection and analysis of the data obtained.
2. Scientific journal articles and student work won in reputable national or international competitions can be converted into a thesis grade. Students still have to make reports and take exams. Determining the suitability of competition achievements as a Thesis and its value is determined by the Dean's Decree.
  3. Scientific journal articles accepted by students/ *accepted* in at least the national journal Sinta 2 where the published data is joint data with the supervisor. Students are required to present/ disseminate the work in the Study Program. Determining the suitability of a journal article as a thesis/thesis and its value is determined by the Dean's Decree on the recommendation of the Study Program.

### **1.3 Thesis Learning Achievements**

The aim of preparing a thesis is for students to be able to summarize and apply all educational experiences to solve problems in a particular field of expertise/field of study systematically and

logically, critically and creatively, based on accurate data or information and supported by appropriate analysis, and express it in the form of writing a scientific paper.

The student competencies that they want to obtain through implementing their thesis are:

- a. Able to apply logical, critical and systematic thinking in the context of developing or implementing science and technology in accordance with the field of science.
- b. Able to demonstrate independent, quality and measurable performance.
- c. Able to study the implementation of science and technology in accordance with the field of science based on scientific rules, procedures and ethics in producing solutions, ideas and designs.
- d. Able to make appropriate decisions in the context of solving problems in their field of expertise, based on the results of information and data analysis.
- e. Able to compile scientific descriptions in the form of scientific work, and upload them to the UIN Maulana Malik Ibrahim Malang repository.

## **CHAPTER II**

### **THESIS IMPLEMENTATION STANDARDS**

#### **2.1 Thesis Aims and Management**

1. The aim of preparing a thesis is for students to be able to summarize and apply all educational experiences to solve problems in a particular field of expertise/field of study systematically and logically, critically and creatively, packaged in an integrated and comprehensive manner based on scientific rules, procedures and ethics.
2. The thesis is managed by the thesis coordinator appointed by the head of the study program and determined through the Dean's Decree.

#### **2.2 Duties and Responsibilities of the Thesis Coordinator**

A Thesis Coordinator is formed in each study program to assist the head of the study program and is responsible for managing the implementation of the Thesis. The task of the Thesis Coordinator is to assist the Head of the Study Program in:

1. Coordinate with students taking thesis courses.
2. Together with the Head of the Study Program / Secretary of the Study Program, appoint a Thesis supervisor by considering the area of expertise and quota.
3. Determine the examining team for proposal

seminars, results seminars and thesis  
examinations

4. Determine the implementation schedule for activities related to the thesis.
5. Monitor and evaluate the implementation of all activities related to the thesis.

### **2.3 Number and Requirements of Thesis Supervisors**

There are two supervisors for undergraduate students, consisting of the main supervisor and integration supervisor. Lecturers who have the authority to guide theses are lecturers who have the following requirements:

1. Academic position and educational qualifications of the main supervisor
  - a. Supervising lecturer for undergraduate programs, at least holds the functional position of Expert Assistant with a minimum educational qualification of Master's Degree. Non-PNS permanent lecturers (who have NIDK) can become Thesis supervisors after having served at least 2 years.
  - b. Have competency skills that are relevant to the theme or problem of the student's thesis being supervised.
  - c. Determined by Dean's Decree
2. Academic position and educational qualifications of the lecturer supervising the integration of Islam and science.
  - a. Integration supervisor/examiner who is

appropriate to the academic field, has a minimum functional position of Expert Assistant and a degree Masters (S2) which

corresponds to the field of knowledge in the Islamic field includes PAI, Sharia, Usuluddin, and Islamic Studies.

- b. Lecturers with a general science background can become religious supervisors provided they have participated in workshops on the integration of Science and Islam and are recommended by the head of the Study Program, then determined through the Dean's Decree.
3. Thesis activities with a collaboration scheme with partner institutions/other study programs/other faculties can apply for additional supervisors from partner institutions/other study programs/other faculties.

## **2.4 Determination of thesis supervisor**

1. The priority for determining the thesis supervisor is the first recommender on the thesis title submission form.
2. If the first recommender has met the maximum guidance quota, it will be transferred to the second recommender.
3. If the second recommender has fulfilled the quota, they will be transferred to another lecturer who has competence with prior confirmation.
4. Supervisors from other institutions are submitted by students via the external supervisor application

form on the Physics Department Web.

5. The Head of the Study Program submits the names of prospective Thesis supervisors to the dean.
6. The Dean issues a Decree from the Thesis supervisor.

## **2.5 Duties and Responsibilities of the Thesis Supervisor**

1. The supervisor is tasked with:
  - a. Help students formulate the theme or title of their thesis.
  - b. Assist students in preparing their Thesis Proposals.
  - c. Prepare a schedule and plan for guidance activities.
  - d. Provide direction and guidance regarding methodology and knowledge relevant to the objectives of the study and preparation of the thesis.
  - e. Monitor and evaluate the development of the students he supervises.
  - f. Motivate, direct and guide students so they can complete their thesis on time.
  - g. Examining and evaluating thesis reports written by students under their supervision.
  - h. Provide assessments to students under their supervision.

- i. Providing approval for the Thesis Report that has been tested and revised.
- j. Accompanying students at every stage of the thesis examination.

2. The supervisor is responsible for the smooth implementation of the thesis preparation until the student can take the final thesis exam.
3. The integration supervisor has the additional task of evaluating thesis writing.

## **2.6 Number of Guidance Students**

The maximum number of Thesis guidance students for each lecturer who meets the requirements is 10 students with the following conditions:

1. Lecturers with a minimum academic position of associate professor can supervise a maximum of 10.
2. Lecturers with a minimum academic position of lecturer and a doctorate can supervise a maximum of 8.
3. Lecturers with a minimum academic position of lecturer and a master's degree can guide a maximum of 6.
4. Lecturers with academic positions as expert assistants and doctoral degrees can guide a maximum of 5.
5. Lecturers with the academic position of expert assistant and master's degree can guide a maximum of 3.
6. Lecturers with DTBPNS status with a minimum work period of 5 years and a doctoral degree can guide a maximum of 6.

7. Lecturers with DTBPNS status with a minimum work period of 5 years and a master's degree can guide a maximum of 5.
8. Lecturers with DTBPNS status with a minimum work period of 2 years can guide a maximum of 3.
9. Study programs that do not meet the requirements will be determined by separate regulations.

## **2.7 Process and Length of Thesis Tutoring**

The thesis guidance process is as follows:

1. The head of the study program/thesis coordinator submits the decree of the supervisor from the faculty to the thesis supervisor.
2. The duration of thesis supervision is a maximum of 3 (three) semesters starting from the determination of the supervisor's decree.
3. If the student is unable to complete the thesis within the specified time period, the head of the study program/thesis coordinator will provide a written warning letter with an additional schedule for completing the assignment for 30 days for the undergraduate program.
4. If for three consecutive semesters a student has not been able to complete a thesis, then the student must propose a new topic and/or supervisor by holding a repeat proposal seminar, unless there are certain considerations from the

supervisor.

5. If for three consecutive semesters the student has not been able to complete the thesis, then the Head of the Study Program can change the supervisor, unless there are certain considerations.
6. Students consult with their supervisor according to the agreed schedule.
7. Consultations are carried out at least 3 times for the thesis proposal and 5 times for the preparation of the thesis draft as evidenced by the consultation book.
8. Consultation with the integration supervisor is carried out at least 3 times for the preparation of the thesis draft as evidenced by the consultation book.

## **2.8 Replacement of Supervisor**

In the process of completing the thesis, if there are special and extraordinary events that require replacement/resignation by the supervisor, the supervisor can go through the following steps:

1. Students discuss with the head of the study program regarding requests for replacement/resignation of supervisors.
2. Students fill out the application form for a change of supervisor.
3. Several considerations or reasons for students to request a replacement or resignation of their

supervisor.

- a. The supervisor is permanently absent, for example due to illness or further studies.
  - b. There are communication problems between students and supervisors that cannot be resolved
  - c. Reasons accepted by the Study Program.
4. Students submit a request form for a change of supervisor to the head of the study program for signature.
  5. The head of the study program confirms with the supervisor concerned before processing the application letter.
  6. If the letter has been approved as proven by the signature of the Head of the Study Program, then the letter is submitted to the Thesis coordinator for processing to change the thesis supervisor.
  7. The supervisor can submit a resignation and must explain the reasons for the resignation.
  8. The head of the study program can change supervisors with certain considerations
  9. The faculty can change supervisors with certain considerations

## **2.9 Number and Requirements of Thesis Examiners**

The Thesis examining team consists of a minimum of 4 people, consisting of the chief examiner and

examiner members (scientific field examiner lecturer, main supervisor lecturer and integration supervisor lecturer) and must meet the following requirements:

1. The chief examiner holds at least the functional position of Lector with a minimum educational qualification of Masters or DTBPNS with a minimum service period of 5 years and a doctorate degree.
2. Examiner members hold a functional position of at least Expert Assistant with a minimum educational qualification of Masters or DTBPNS with

minimum work period of 2 years and come from across scientific fields.

3. The chief examiner has expertise that is relevant to the theme/title of the student's thesis.
4. Thesis examiners with a collaboration scheme are supervisors from partners.
5. Study programs that do not meet the requirements related to human resources will be determined according to their own rules.

## **2.10 Tester Replacement**

In the process of completing the thesis, there are special and extraordinary events that require replacement/resignation by the examining lecturer, namely:

1. The examiner is permanently absent.
2. The examiner experiences a condition that makes it impossible to carry out his duties.
3. If there is a personal conflict between the examining lecturer, supervisor or student.
4. The study program has the right to replace the thesis examiner.

## **2.11 Requirements for Students to Obtain Thesis Tutoring**

1. Actively registered students in the current semester
2. Submission of a Thesis title can be done by students after passing the Thesis prerequisite

courses that have been determined by each study program

3. Achieve a GPA  $\geq$  2.00 for undergraduate programs

## **2.12 Duties of Examining Lecturers**

The workload of thesis examining lecturers is a maximum of 15 students with the following details:

1. Lecturers with a minimum academic position of associate professor can test a maximum of 15.
2. Lecturers with a minimum academic position of lecturer and a doctorate can test a maximum of 12.
3. Lecturers with a minimum academic position of lecturer and a master's degree can test a maximum of 9.
4. Lecturers with academic positions as expert assistants and doctoral degrees can test a maximum of 8.
5. Lecturers with the academic position of expert assistant and master's degree can test a maximum of 6.
6. Lecturers with DTBPNS status with a minimum work period of 5 years and a doctoral degree can test a maximum of 9.
7. Lecturers with DTBPNS status with a minimum work period of 5 years and a master's degree

can test a maximum of 8.

8. Lecturers with DTBPNS status with a minimum work period of 2 years and a master's degree can guide a maximum of 6.
9. Study programs that do not meet the requirements will be determined by separate regulations.

## **2.13 Obligations and Rights of Students Completing a Thesis**

1. Student obligations
  - a. Discuss the planned research title with prospective supervisors.
  - b. Submit the research title to the Thesis coordinator via SIM physics
  - c. Prepare proposals according to the specified format.
  - d. Conduct research in accordance with research proposals that have been refined through seminars and consultation with supervisors
  - e. Consult all matters relating to the thesis with the supervisor
  - f. Create a draft of the thesis according to the specified format
  - g. If the supervisor has approved the exam, students register for the exam via SIM physics by submitting the thesis draft in the physics

study program admin.

- h. Students complete all thesis exam requirements, both academically and administratively
- i. Students make a finalized Thesis report after being declared passed according to the provisions
- j. There is no cheating in preparing a thesis, namely plagiarizing other people's work.

## 2. Student rights

- a. Students who have fulfilled the academic requirements are entitled to take thesis courses.
- b. Students program bachelor entitled get 2 Thesis supervisors.
- c. Students have the right to use the facilities at the Faculty of Science and Technology for research purposes in accordance with applicable regulations.
- d. Students who have completed research and prepared a thesis draft and received approval from their supervisor have the right to submit a results seminar and thesis examination.
- e. Students have the right to receive recognition as pass/fail as proven by their thesis score.

## **CHAPTER III**

### **THESIS IMPLEMENTATION PROCESS**

The implementation of the thesis goes through three evaluation stages, namely proposal seminar, results seminar, and thesis examination

#### **3.1 Proposal Seminar**

1. Proposal seminars can be held orally or using a file test (Proposal Review) and can be held offline, online, or hybrid.
2. The maximum time duration for the proposal seminar is 90 minutes
3. Thesis Proposal Seminar to determine the status of a student's proposal, namely: (i) accepted without revision, (ii) accepted with revision, or (iii) rejected.
4. The examining team consists of a minimum of 3 (three) people consisting of: chief examiner (scientific field), examiner member 1 (across scientific fields), examiner member 2 (supervisor)
5. Proposals that are rejected must be revised and scheduled for re-evaluation through a Proposal Seminar.
6. Based on the results of the Proposal Seminar, the student improves the Thesis proposal and it has been approved and signed by the supervisor and examiner, as proof that the student concerned has

revised the contents of the proposal in accordance with the results of the Thesis proposal seminar.

7. If students do not improve their proposals, they will not be allowed to take part in the next process.
8. At the end of the proposal hearing, all examiners are required to issue scores and provide recommendations.
9. The technical implementation and provisions of the proposal seminar are regulated by the study program.

### **3.2 Seminar results**

1. Seminar results are held offline, online or *hybrid* with a maximum duration of 90 minutes open or closed.
  - a) Opening
  - b) Presentation ( $\pm$  15 minutes)
  - c) Asking questions ( $\pm$  60 Minutes)
  - d) Evaluation of exam results and revision ( $\pm$  15 minutes)
  - e) Submission of exam results and closing by the Chair of the Session
2. Seminar results to determine the status of student research eligibility, namely: (i) eligible to take part in the thesis trial, (ii) revision.
3. The examining team consists of a minimum of 3 (three) people consisting of: chief examiner (scientific field), examiner member 1 (across scientific fields), examiner member 2 (supervisor)

4. The evaluation results at the seminar results can be used to determine the suitability of the student concerned to take the thesis exam if the percentage of trial results deciding (a) pass without revision, or (b) pass with revision
5. At the end of the results seminar, the examining team is obliged to issue scores and provide recommendations related to the results seminar session
6. The process for improving seminar results for those declared eligible is two weeks.
7. The technical implementation of the seminar results will be further regulated by the Study Program

### **3.3 Requirements for taking the thesis exam**

Undergraduate students have:

1. Passed or has taken all courses
2. Pass the PKL exam
3. Pass a comprehensive exam
4. Take the TOEFL and TOAFL exams or equivalent
5. Passed the Ma'had program
6. Do not have dependents in the laboratory/study program

7. Not currently receiving academic sanctions

### **3.4 Thesis Examination Registration**

1. Students register for the exam via SIM by attaching the required documents.
2. The exam schedule is set by the Thesis coordinator.
3. The registration and thesis examination schedule is carried out regularly every month.
4. Thesis manuscripts must be submitted no later than a week before the Thesis Examination is scheduled.
5. Thesis examinations are held throughout the semester.

### **3.5 Implementation of the Thesis Examination**

Several things that need to be considered when carrying out the Thesis Examination are as follows:

1. The Thesis examination is held in a way open/closed
2. Students taking the Thesis Examination must appear neat and polite, with plain white top and black bottom, wearing an alma mater jacket.
3. The examining team consists of a minimum of 4

(four) people consisting of: chief examiner (scientific field), examiner member 1 (across scientific fields), examiner member 2 (supervisor) and examiner member 3 (supervisor of integration of science and Islam) .

4. If the research is collaborative research with another agency, then there are three supervisors and 4 examiners who come from that agency.
5. In the event of the absence of the supervisor and examining lecturer, the Thesis Examination is canceled (late time limit is 30 minutes from the specified schedule) and will be rescheduled with the agreement of the examining team.
6. The thesis examination is carried out in an open/closed manner, with a maximum duration of the thesis examination of 90 (one hundred and twenty) minutes with the following event stages:
  - a. Opening
  - b. Presentation ( $\pm$  15 minutes)
  - c. Asking questions ( $\pm$  60 Minutes)
  - d. Evaluation of exam results and revision ( $\pm$  15 minutes)
  - e. Submission of exam results and closing by the Chair of the Session
7. Exam assessment is carried out by the Examining Team with the following material:
  - a. Importance of the Problem

- b. Alignment of problem formulation, objectives and research methods
  - c. Accuracy of data analysis techniques
  - d. The relevance of the literature review
  - e. Data Exposure
  - f. Regularity of the flow of discussion
  - g. Suitability of conclusions to research problems
  - h. Material Mastery
  - i. Attitude
  - j. Accuracy of writing techniques and grammar
8. At the end of the trial, the examining team holds a trial with the results (a) Passed, and (b) failed and determines the scores obtained from the proposal seminar, results seminar and final exam.
9. If it is declared that they have not passed, the student is required to retake a maximum of 3 months after the trial.

### **3.6 Thesis Assessment**

1. The assessment weight requirement is 10% comprehensive exam; 10% yield seminar; thesis exam 80%.

### **3.7 Final Stages of Thesis Implementation**

When the Thesis Examination has been completed, students are required to do the following:

1. Students are obliged to correct things requested by the Examining Team, within the specified time (requested corrections such as Minutes that have been recorded by the Team Secretary during the exam).
2. After repairs, it must be consulted with the Supervisor and Chief Examiner, who then obtains approval from the Supervisor and Head of the Examining Team.
3. Revision of the thesis is carried out a maximum of 1 month after the exam and if it is not completed, you must take the exam again
4. The second validation sheet in the Thesis Report book must be signed by the Examining Team. Students request signatures in the following order:
  - a. Mentor
  - b. Chair of the Examining Team
  - c. Examiner
5. The validation sheet on the Thesis Report will be signed by the Head of the Study Program after the validation sheet has been signed by the entire Testing Team.
6. Students are required to submit their thesis report in hard and CD form (one disc).

7. The deadline for submitting the Thesis Report (CD) is 3 days before the Faculty Judicium.

### **3.8 Equalization of Student Scientific Work as a Thesis**

Scientific work that can be equated with a thesis is based on the following:

1. Articles that have been accepted in accredited national/international scientific journals of at least Sinta 2 in the appropriate field of science and under the guidance of a supervisor where the supervisor team is the co-author and the main supervisor is the corresponding author.
2. Scientific work under the guidance of competent lecturers which is competed at the national/ international Student Science Week in the appropriate field of science and wins a minimum of 3rd place either individually or in a group of a maximum of 2 (two) people.
3. Journal articles and scientific papers must still be presented/disseminated in the thesis examination.
4. Scientific work must be changed according to the thesis format.
5. Journal articles published by students have a maximum validity period of 2 years for equalization from the time they are published
6. Assessment of students who receive

recognition for thesis equivalency is carried out by the Study Program.

7. The study program will review and determine acceptable journals/competitions according to the following criteria:

Stages Thesis	Scopus				Sinta	
	Q1	Q2	Q3	Q4	1	2
Seminar Proposals	Yes	Yes	Yes	Yes	Yes	Yes
Seminar Results	No	No	No	No	No	No
Dissemination	Yes	Yes	Yes	Yes	Yes	Yes
Grade	A	A	A	A	A	A
				Consideration Dissemination		

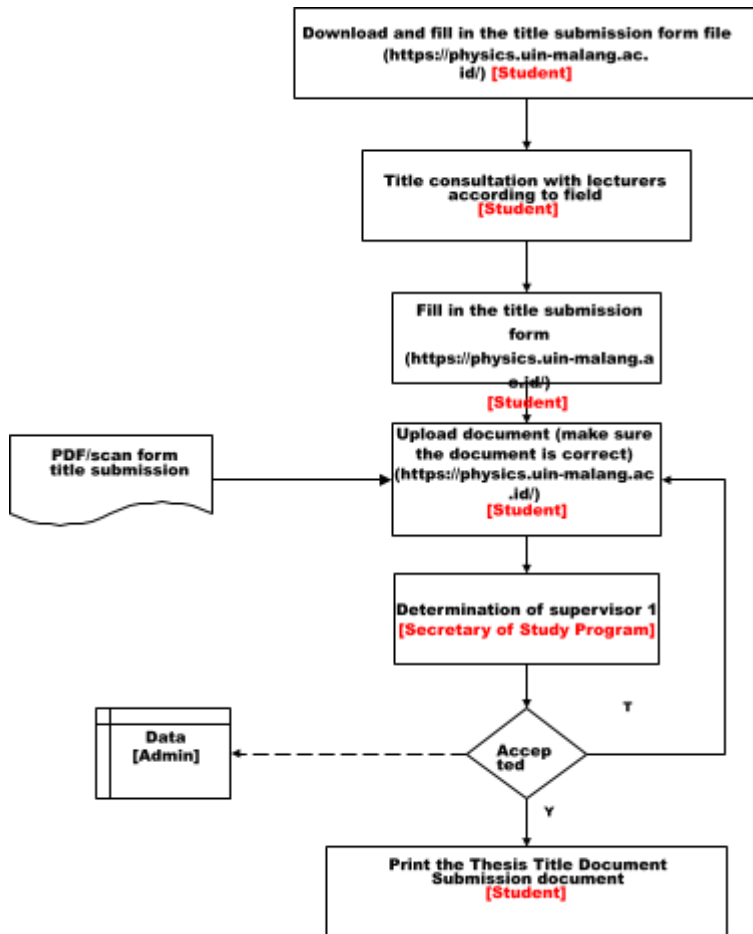
8. Student scientific work converted into a thesis is determined through the Dean's Decree.

### **3.9 Thesis/thesis format**

1. The format and writing rules will be determined by the Study Program.
2. The cover of the thesis or thesis is yellow.

## Appendix 1.

### SOP FOR SUBMISSION OF THESIS TITLE



Appendix 2.

## **THESIS TITLE SUBMISSION FORM**

### **A. Student Identity**

Name :

NIM :

Mobile number :

### **B. Thesis Title:**

### **C. Background:**

### **D. Problem:**

### **E. Purpose:**

### **F. Benefits:**

**G.Recommending Lecturers (min. 2 people):**

<b>No</b>	<b>Name</b>	<b>Signature</b>
1		
2		
3		

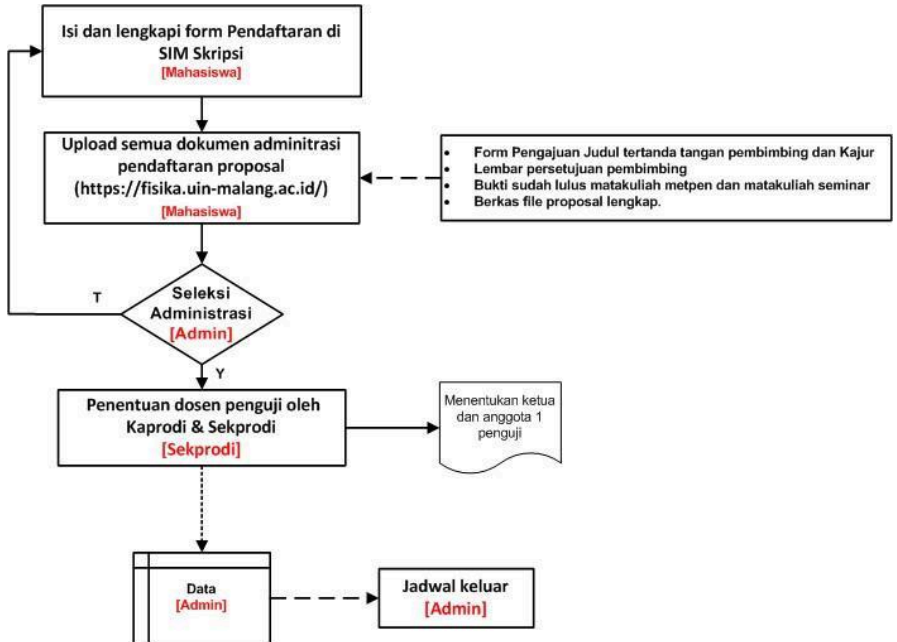
Submitter

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NIM

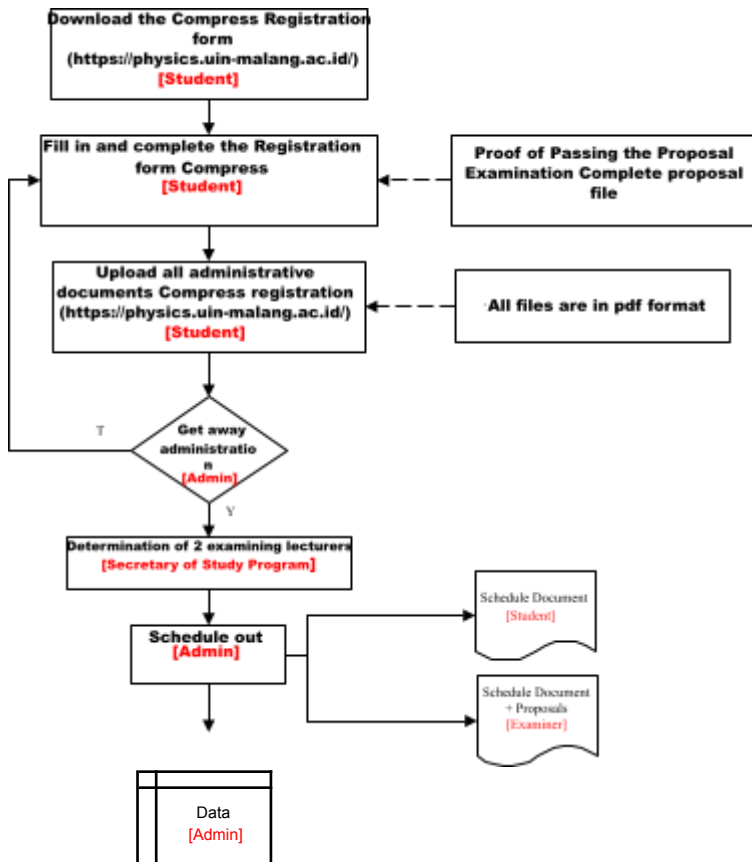
### Appendix 3.

## PROPOSAL TEST REGISTRATION SOP



## Appendix 4.

# COMPREHENSIVE EXAM REGISTRATION SOP



Appendix 5.

**COMPREHENSIVE EXAM REGISTRATION  
FORM**

**TEST REGISTRATION FORM**

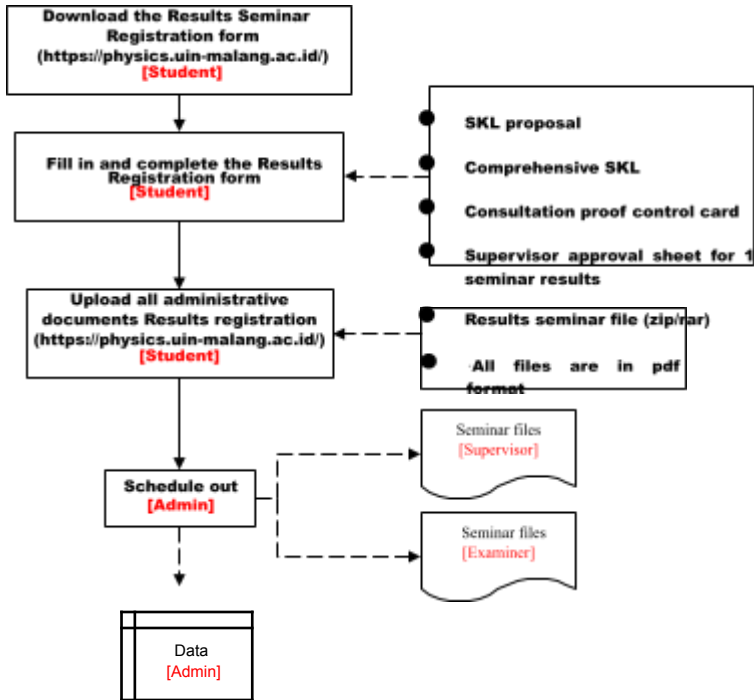
**COMPREHENSIVE**

The undersigned:

1. Full Name :  
(According to diploma)
2. Student Identification Number :
3. Place & Date. Born :
4. No. Mobile phone :
5. Address in Malang :
6. Thesis title :

## Appendix 6.

### SEMINAR TEST REGISTRATION SOP RESULTS



Appendix 7.

**SEMINAR TEST REGISTRATION FORM  
RESULTS**

**SEMINAR REGISTRATION FORM  
RESULTS**

The undersigned:

1. Full Name :

(According to diploma)

2. Student Identification Number :

3. Place & Date. Born :

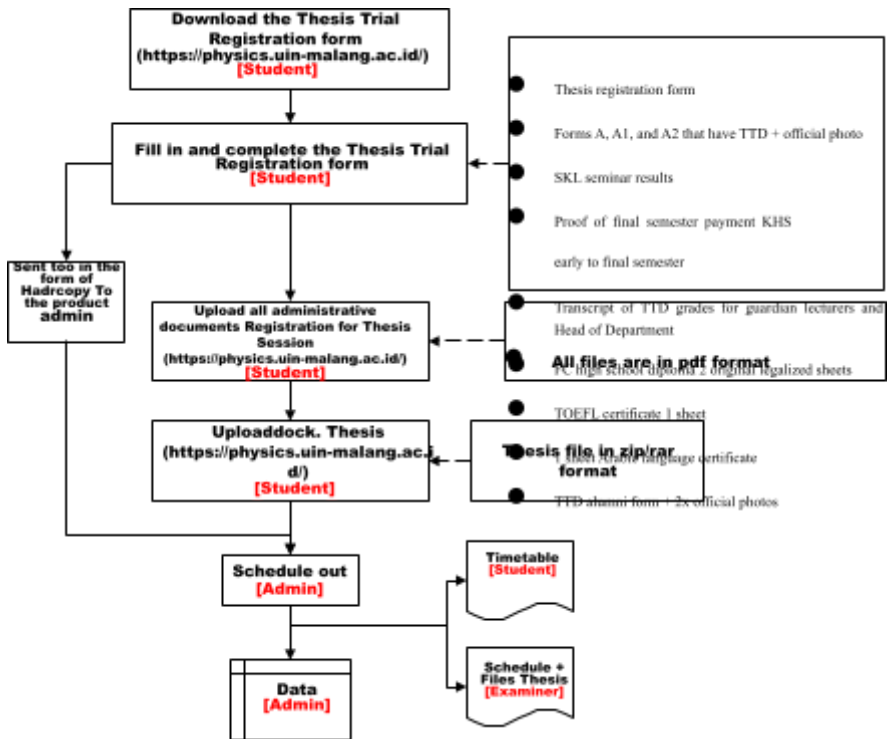
4. No. Mobile phone :

5. Address in Malang :

6. Thesis title :

## Appendix 8.

### SOP FOR THESIS TRIAL EXAM REGISTRATION



Appendix 9.

THESIS TRIAL EXAMINATION REGISTRATION  
FORM

**TRIAL REGISTRATION FORM**  
**THESIS**

The undersigned:

1. Full Name :

(According to diploma)

2. Student Identification Number :

3. Place & Date. Born :

4. No. Mobile phone :

5. Address in Malang :

6. Thesis title :

Appendix 10.

SOP FOR SUBMITTING COMPREHENSIVE PASS CERTIFICATES AND THESIS PROPOSALS

