Module Description/Course Syllabi

Study Programme: Mathematics (Master Degree)
Faculty of Mathematics and Natural Sciences
Universitas Andalas

1. *Course number and name*

MAT82101 Seminar Proposal

2. *Credits and contact hours/Number of ECTS credits allocated*

2/3,02 ECTS

3. *Instructors and course coordinator*

Promotor and Co-promotor

4. *Text book, title, author, and year*

- Appropriate journal/book
- http://matematika.fmipa.unand.ac.id/magister/download-category/pedoman/

5. *Recommended reading and other learning resources/tools*

Appropriate journal/book

6. *Specific course information*

A. Brief description of the content of the course (catalog description)

This course discuse the topic research for each student, which involves the following components: 1. Abstract: An abstract is a concise summary of the thesis, usually limited to around 200 words. It provides an overview of the research conducted and its main findings. 2. Introduction: The introduction sets the stage for the thesis, outlining the research problem, its significance, and the research objectives. It often includes a hook to engage the reader. 3. Literature Review: This section reviews relevant academic literature to establish the context and theoretical framework for the research. 4. Methodology: The methodology details the research methods and techniques employed to collect and analyze data.

References: A list of all the sources and references cited in the proposal thesis.

B. Prerequisites or corequisites

Compulsory courses (selective)

C. Indicate whether a required or elective course in the program

Required

D. Level of course unit (according to EQF: first cycle Bachelor, second cycle Master)

First cycle Master

E. Year of study when the course unit is delivered (if applicable)

1st year

F. Semester when the course unit is delivered

Odd/even semester

G. Mode of delivery (face-to-face, distance learning)

Face to face

7. *Intended Learning Outcomes*

ILO-1: Possess good ethics and integrity.
PI-1. Possess academic ethics.
PI-2. Demonstrate academic integrity.

ILO-2: Mastering mathematical concepts and applications (real analysis, advanced linear algebra, and statistics) in solving complex mathematical problems.
PI-1. Possess academic ethics.
PI-2. Demonstrate academic integrity.

ILO-3: Able to master one or several mathematical problems in analysis, algebra, applied mathematics, statistics and combinatorics.
PI-1: Able to identify theories used in related mathematical problems.
PI-2: Able to apply theories for advancement in related fields (advanced theory).
PI-3: Able to use advanced theory to solve related mathematical problems.

ILO-4: Mastering scientific techniques and developing them in solving research problems through multidisciplinary or interdisciplinary approaches.
PI-1: Able to apply mathematical techniques in research problem-solving.
PI-2: Able to analyse research problems.
PI-3: Able to formulate theorems/models and prove their validity.
PI-4: Able to use various mathematical software to solve complex mathematical problems.

ILO-5: Able to work and conduct research in the field of mathematics and related fields of science by developing the latest issues independently or collaboratively and communicating them academically.
PI-1: Capable of formally and correctly proving mathematical statements.
PI-2: Able to employ relevant techniques for conducting research.
PI-3: Capable of communicating research findings in an academic manner.

ILO-6: Able to be actively involved in lifelong learning and sustainability.
PI-1. Able to independently expand and deepen learning based on acquired knowledge.
PI-2. Able to expand and deepen interdisciplinary competencies based on acquired knowledge.
PI-3. Able to understand and apply the latest developments in mathematical theory.

8. *Course Learning Outcomes*

1. Students have good Research Skills: Develop advanced research skills, including the ability to formulate research questions, and design research methodologies.

2. Student have good Critical Thinking: Enhance critical thinking and problem-solving abilities to evaluate existing literature, theories, and research proposal.

3. Students have ability in Communication: Improve written and oral communication skills to effectively present and defend research proposal.

4. Students have ability to conduct a Literature Review: Conduct a comprehensive literature review, demonstrating an understanding of existing scholarship in the chosen

field. **5.** Students are become Independence: Demonstrate the ability to work independently and self-motivate to complete a substantial research project.
6. *Brief list of topics to be covered*
Depend on selected research topic
7. Learning and teaching methods
1. Discussion 2. Directed learning
8. Language of instruction
Bahasa Indonesia
9. Assessment methods and criteria
Assessment rubric