



Module Description/Course Syllabi

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

1. Course number and name

MAT81101 Research Method and Scientific Publication

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

3/4,53 ECTS

3. Instructors and course coordinator

Tim Dosen

4. Text book, title, author, and year

J. Paul T.P. Wong, *How to Write a Research Proposal*, Featured Article, 2002.

5. Recommended reading and other learning resources/tools

1. Nasoetion, A. H., *Pengantar ke Falsafah Sains*, 1988.
2. Chalmers, A.F, *What is This Thing Called Science Third Edition*, 2007.

6. Specific course information

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

The materials in this course are related to mathematical research models, browsing literature, writing proposals, how to write a thesis, tips for international scientific publications, writing articles, and tips for presentations.

B. Prerequisites or corequisites

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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)

Second cycle degree

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

1st Year

F. Semester when the course unit is delivered

Odd Semester

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

Face to face

7. Intended Learning Outcomes

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

<p>ILO-2: Mastering mathematical concepts and applications (real analysis, advanced linear algebra, and statistics) in solving complex mathematical problems. (ILO-2)</p> <p>PI-1. Able to explain mathematical concepts (Real Analysis, Advanced Linear Algebra, and Statistics).</p> <p>PI-2. Able to identify complex mathematical problems.</p> <p>PI-3. Able to solve complex mathematical problems.</p> <p>ILO-3: An ability to identify, explain and generalize simple mathematics.</p> <p>PI-1. Able to identify theories used in related mathematical problems.</p> <p>PI-2. Able to apply theories for advancement in related fields (advanced theory).</p> <p>PI-3. Able to use advanced theory to solve related mathematical problems.</p>
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8. Course Learning Outcomes:

1. Student will be able to understand mathematical research models (ILO-1: PI-1, PI-2, ILO-2: PI-1, PI-2)
2. Student will be able to browse literature (ILO-2: PI-1, PI-2 ; ILO-3: PI-1, PI-2)
3. Student will be able to write proposals (ILO-2: PI-1, PI-2 ; ILO-3: PI-1, PI-2)
4. Student will be able to know how to write a thesis (ILO-2: PI-1, PI-2; ILO-3: PI-1, PI-2)
5. Student will be able to know the tips of international scientific publications (ILO-2: PI-1, PI-2; ILO-3: PI-1, PI-2)
6. Student will be able to know how to write articles and presentation (ILO-1: PI-1, PI-2; ILO-2: PI-1, PI-2; ILO-3: PI-1, PI-2)

9. Brief list of topics to be covered

How to do math research, how to browse literature, how to write a proposal, how to write a thesis,, international scientific publication tips, and how to write articles and presentations,

10. Learning and teaching methods

Small group discussion
PjBL
Directed Learning

11. Language of instruction

Bahasa Indonesia

12. Assessment methods and criteria

Summative Assessment:

1. Assignment: 33.4%
2. Quiz: 16.7%
3. Midterm : 16.7%
4. Final exam : 16.7%
5. Presentation : 16.7%

Formative Assessment:

1. Thumb up and thumb down
2. Minutes paper

