Academic Handbook 2015 2016

Master Program in Biomedical Sciences

Faculty of Medicine
Universitas Brawijaya
Malang
Welcome

First of all, welcome to the Master Program in Biomedical Sciences, Faculty of Medicine-Universitas Brawijaya (PMIB-FKUB)!

Universitas Brawijaya is located in Malang, the second largest city in East Java. The city has a fairly cool weather and peaceful environment. There are breathtaking views of mountains, hills, waterfalls, beaches, and ancient temples. Moreover, the people will shower you with politeness and generosity. We wish you a great stay!

This Academic Handbook is published to disseminate information related to education process in the study program. To meet the stakeholders’ needs, this handbook is formulated in line with: (1) Decree of Minister of Research, Technology, and Higher Education No. 44 Year 2015 about National Standard of Higher Education, (2) UB Guideline Book of Education 2015/2016, and (3) UB Academic Guidance of Master Program Year 2012. This handbook is finally projected to be the basis of implementation of the education process in the study program. For additional information we would like to refer you to our website: http://biomedical.fk.ub.ac.id

In case you still have questions or need more detailed information, our dedicated staff will be happy to help you.

Malang, January 18, 2016

With warmest personal regards,
Faculty of Medicine, Universitas Brawijaya

The Dean,

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NIP. 19580414 198701 2 001
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Dimas Adrianto, SE.
Ita Yuliati
## Academic Calendar
### Universitas Brawijaya
#### Academic Year 2015/2016

<table>
<thead>
<tr>
<th>No.</th>
<th>ODD SEMESTER</th>
<th>DATE</th>
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<tbody>
<tr>
<td>1.</td>
<td>New Student Registration:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. SNMPTN</td>
<td>June 9, 2015</td>
</tr>
<tr>
<td></td>
<td>b. SBMPTN</td>
<td>July 10 - 22, 2015</td>
</tr>
<tr>
<td></td>
<td>c. SPMK</td>
<td>August 3 - 8, 2015</td>
</tr>
<tr>
<td></td>
<td>d. SPKPD</td>
<td>August 3 - 8, 2015</td>
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<tr>
<td></td>
<td>d. SPMV</td>
<td>August 13 - 18, 2015</td>
</tr>
<tr>
<td></td>
<td>e. Postgraduate</td>
<td>August 3 - 31, 2015</td>
</tr>
<tr>
<td>2.</td>
<td>Academic Registration (payment of tuition fee, filling out the Study Plan Record/KRS)</td>
<td>August 18 - 28, 2015</td>
</tr>
<tr>
<td>3.</td>
<td>New Student Acceptance Ceremony</td>
<td>September 1, 2015</td>
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<tr>
<td>5.</td>
<td>ODD SEMESTER</td>
<td>September 7 - December 24 2015</td>
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<tr>
<td>6.</td>
<td>PDPT Reporting</td>
<td>September 7 - 25, 2015</td>
</tr>
<tr>
<td>7.</td>
<td>Final Date of Cancellation of Study Plan/KRS</td>
<td>To be determined by Faculty Policy</td>
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<tr>
<td>8.</td>
<td>Mid Term Exam (UTS)</td>
<td>October 26 - November 6, 2015</td>
</tr>
<tr>
<td>9.</td>
<td>Final Date of Final Exam Schedule Announcement</td>
<td>December 24, 2015</td>
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<tr>
<td>10.</td>
<td>Quiet Week</td>
<td>December 28- 31, 2015</td>
</tr>
<tr>
<td>12.</td>
<td>Final Date of Grade Announcement</td>
<td>January 22, 2016</td>
</tr>
<tr>
<td>13.</td>
<td>Final Date of Student Evaluation</td>
<td>January 27, 2016</td>
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<tr>
<td>No.</td>
<td>EVEN SEMESTER</td>
<td>DATE</td>
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<td>-----</td>
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<tr>
<td>1.</td>
<td>New Student Registration for Postgraduate Program</td>
<td>February 1 - 12, 2016</td>
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<tr>
<td>2.</td>
<td>Academic Registration (payment of tuition fee, filling out the Study Plan Record/KRS)</td>
<td>January 25 - February 5, 2016</td>
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<tr>
<td>3.</td>
<td>EVEN SEMESTER</td>
<td>February 15 - June 3, 2016</td>
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<td>4.</td>
<td>PDPT Reporting</td>
<td>February 15 - March 1, 2016</td>
</tr>
<tr>
<td>5.</td>
<td>Final Date of Cancellation of Study Plan/KRS</td>
<td>To be determined by the Faculty Policy</td>
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<tr>
<td>6.</td>
<td>Mid Term Exam (UTS)</td>
<td>April 4 - 15, 2016</td>
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<td>7.</td>
<td>Final Date of Final Exam Schedule Announcement</td>
<td>June 3, 2016</td>
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<td>8.</td>
<td>Quiet Week</td>
<td>June 6 - 10, 2016</td>
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<td>10.</td>
<td>Short Semester</td>
<td>June 27 - July 1 and July 18 - August 12, 2016</td>
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<td>11.</td>
<td>Final Date of Grade Announcement</td>
<td>July 1, 2016</td>
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<td>12.</td>
<td>Final Date of Student Evaluation</td>
<td>August 19, 2016</td>
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<td>13.</td>
<td>The End of Even Semester</td>
<td>August 26, 2016</td>
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http://www.ub.ac.id/akademik/kalendar-akademik
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A. Brief History of the Study Program

Master Program in Biomedical Sciences (Program Magister Ilmu Biomedik, PMIB), Faculty of Medicine (Fakultas Kedokteran, FK) at Universitas Brawijaya (UB) originated from the establishment of Master Program of UB, which was started in 1981. The pilot program began with cooperation between UB and Universitas Gadjah Mada (UGM) to hold Credit Collection Program of UGM-UNIBRAW. The program was aimed to help UB in planning and implementing education at postgraduate level independently. After eleven years with the status of UGM-UNIBRAW collaboration program, based on the Decree of Directorate General for Higher Education of the Ministry of Education and Culture No. 104/Dikti/Kep/93, 105/Dikti/Kep/93, and 106/Dikti/Kep/93, the Postgraduate Program of UB conduct its activities independently on February 27, 1993, with three Master Programs (Stratum 2/S2).

With the surging growth of study programs in UB, coupled with an increase in the number of applicants aspiring for new study programs, since the academic year 1995/1996 Postgraduate Program of UB has administered seven Master Programs. Starting from the academic year 1998/1999 Postgraduate Program of UB has administered 12 Master Programs and one Doctoral Program (Stratum 3/S3), which includes Master Program in Biomedical Sciences (Decree of Directorate General for Higher Education of the Ministry of Education and Culture No. 326/DIKTI/KEP/1998 dated September 14, 1998).

Based on the Rector’s Decree No. 30/SK/2006 and Rector’s Circular Letter No. 2012/J10/LL/2006 that stipulated every Master and Doctoral Program to be under its perspective faculty, since the even semester of the academic year 2008/2009, the PMIB has been under the Faculty of Medicine. Then, based on the Decree of Directorate General for Higher Education of the Ministry of Education and Culture No. 13459/D/T/K-N/2012, the PMIB-FKUB has acquired authorization which due on December 8, 2016.
B. Development of the Academic Field

In the academic year of 1998/1999, based on the Decree of Directorate General for Higher Education of Ministry of Education and Culture No. 326/DIKTI/Kep/1998 dated September 14, 1998, the PMIB-FKUB was opened as education program of Stratum 2 (S2) at the Postgraduate Program of UB. It was constituted to have six concentrations: Medical Anatomy-Histology, Medical Pharmacology, Medical Toxicology, Medical Immunology, Medical Microbiology, and Medical Parasitology. Considering the development of potential research in the area of Biomolecular, the increase in the number of lecturers with the title of Professor and Doctorate of both national and overseas graduates, the tendency of the needs articulated by the candidates of this program, and the patterns of diseases, in 2009 the three concentrations of Molecular Physiology, Preventive Medicine, and Clinical Medicine were opened. Thus, the program holds nine concentrations (Dean’s Decree No.071/SK/UN10.7/KP/2011).

Based on the Curriculum Standard of Medical Specialist, which aims at improving the quality of the specialist program, and the objectives of the FKUB to develop human resources of the researcher in the areas of health and medicine, the PMIB-FKUB started pioneering the dual degree program involving the PMIB with the specialist program or clinical profession simultaneously. Its graduates are expected, in the future, to contribute to the development of health and medical sciences in the field of Biomedical Sciences, so that they will be able to catch up in the field of medicine and health sciences. Thus, the dual degree program for Master in Biomedical Sciences and Pediatrician (Sp.A) was started from the academic year of 2008/2009 (Dean’s Decree No. 19A/SK/H10.7/ AK/2011), under cooperation with Pediatric Specialist Program of FKUB/dr. Saiful Anwar General Hospital Malang. This dual degree program developed further for Neurologist (Sp.S) and also Clinical Pathologist (Sp.PK). By considering the fact that the graduates of Medical Study Program (Bachelor of Medicine) have human resource potentials in the areas of education and research, since the academic year of 2010/2011, in collaboration with the Medical Study Program FKUB, the dual degree program for Master of Biomedical Sciences and Medical Doctor has been conducted (Dean’s Decree No.19A/SK/H10.7/AK/2011).
To support the university’s vision and mission of becoming World Class University (WCU), since the academic year of 2009/2010, through a double degree program at the university, the double degree program with National Pingtung University of Science and Technology (NPUST), Taiwan, has been opened. Furthermore, the study program has also opened for the admission of overseas students under UB regulation through the International Office (http://io.ub.ac.id/).

C. Vision, Mission, and Goal

Master Program in Biomedical Sciences bears vision and mission following the vision and mission of UB and FKUB.

Vision and Missions of Universitas Brawijaya

Vision

To become an outstanding world-class university and to be able to take active parts in the national development through education, research, and community service.

Missions

1. To implement the process of learning so that learners become people with academic and/or professional skills and good personality who also possess entrepreneur skills; and
2. To develop and to disseminate science, technology, humanity, and arts, attempting to improve people's standard of living and enrich the national culture.

Vision and Mission of Faculty of Medicine

Vision

To become a prominent Institute of medical education and health with international standard and entrepreneur spirit to improve the quality of life.
Mission

To develop education, research, and community service in the field of medicine, health, health management, and public health that are current and qualified to build the nation’s future based on universal values.

Vision, Mission, and Goal of Master Program in Biomedical Sciences

Vision

To become the center for study and education in biomedical sciences possessing international competitiveness and promoting excellence in the areas of Anatomy-Histology, Pharmacology, Toxicology, Molecular Physiology, Immunology, Microbiology, Parasitology, Preventive Medicine, and Clinical Medicine.

Mission

To implement current and high-quality education and research in the field of biomedical sciences emphasized in the pathomechanism of disease and medical technology, aimed at improving the public health.

Goal

Aims to produce graduates who have intellectual integrity, ability to apply and develop biomedical sciences, and ability to perform innovative and valid research through inter- and multidisciplinary approaches, as well as ability to gain national and international recognition. All graduates are expected to have a career in the field of education and/or research related to biomedical sciences and be able to develop themselves in their profession.

It is also expected that PMIB-FKUB can be the center of biomedical sciences education and research, which has implemented the quality management according to 7 quality standards of National Accreditation Board for Higher Education (BAN-PT), 15 quality standards of ASEAN University Network-Quality Assurance (AUN-QA), and the standards of quality management system ISO 9001:2008. Thus, the PMIB-FKUB will be placed in the rank of leading institutions nationally and internationally.
D. Program Learning Outcomes

Program Learning Outcomes (PLOs) are competencies should be achieved by each graduate at the end of study in the program. PLOs are defined in accordance with (1) vision and mission of university, faculty, and study program, (2) the Indonesian Qualification Framework (KKNI) endorsed by Directorate General for Higher Education (Dirjen DIKTI) of the Ministry of Education and Culture, (3) the agreement of Indonesian Consortium for Biomedical Sciences (KIBI), as well as (4) the stakeholders’ needs and (5) the advances in Biomedical Sciences and Technology. Moreover, PLOs were designed according to references on national and overseas universities.

According to Indonesian Qualification Framework (KKNI), competencies of graduates should include competencies in **knowledge literacy, specific skills, generic skills, and attitude**. Competencies in knowledge literacy and specific skills are designated by the association of study program that is KIBI. Whereas, competencies in generic skills and attitude are set in National Standard for Higher Education (SN-DIKTI).

**Indonesian Qualification Framework**

Based on Indonesian Qualification Framework (KKNI), the graduates of master program should achieve the **level 8 qualification** (Fig. 1), including (1) Ability to develop science and technology through an innovative and valid research, (2) Ability to solve the problem in science and technology through interdisciplinary approaches, (3) Ability to manage a research that benefits the community and science development, and (4) Ability to obtain national and international recognition.

At every level of qualification, graduates should achieve the following **attitudes**: (1) Belief in God Almighty, (2) Have a noble moral value and good personality, (3) Serve as citizens who are proud of and love the homeland and support world peace, (4) Appreciate cultural diversity, views, beliefs, religion, and opinion or original findings of others, (5) Uphold the rule of law and have the spirit to prioritize the interests of the nation and the wider community, and (6) Able to work together and have a social sensitivity and a high concern for people and the environment.
Agreement of Indonesian Consortium for Biomedical Sciences

Following the agreement of Indonesian Consortium for Biomedical Sciences (KIBI) at the 1st National Conference in Depok Campus of Universitas Indonesia on August 26-27, 2015, the graduates of master program in biomedical sciences should achieve the following knowledge literacy and specific skills:

1. **Knowledge Literacy**: Ability to master theoretical concepts of morphology and also physiological and pathological mechanisms at cellular and molecular levels.
2. **Specific Skills**: Ability to apply and develop the analytical techniques in morphology and also physiological and pathological mechanisms at cellular and molecular levels, as well as ability to interpret the results of analysis.

Program Learning Outcomes

The main competence should be achieved by graduates of study program is “Being graduate who has intellectual integrity, ability to apply and develop biomedical sciences, and ability to perform valid and innovative research through inter- and multidisciplinary approaches, as well as ability to gain
national and international recognition.” This main competency is then specified as the following PLOs:

**Graduates of PMIB-FKUB are expected to (be):**

<table>
<thead>
<tr>
<th>PLO1. Knowledge Literacy</th>
</tr>
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<tbody>
<tr>
<td>PLO1.1 Demonstrate a comprehensive understanding of the concepts of basic biomedical sciences in selected areas of emphasis, including anatomy-histology, molecular physiology, pharmacology, toxicology, immunology, microbiology, parasitology, preventive medicine, and clinical medicine.</td>
</tr>
<tr>
<td>PLO1.2 Demonstrate a comprehensive understanding of the key principles and recent developments in the specific disciplines of biomedical sciences focused on herbal medicine, stem cells, growth and development, metabolic and degenerative diseases, autoimmune diseases, or infections.</td>
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</table>

<table>
<thead>
<tr>
<th>PLO2. Specific Skills</th>
</tr>
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<tbody>
<tr>
<td>PLO2.1 Apply critical and creative thinking to solve problems in the field of biomedical sciences through inter- and multidisciplinary approaches.</td>
</tr>
<tr>
<td>PLO2.2 Able to independently perform innovative and valid research in the field of biomedical sciences aimed at improving the public health, which is eligible to be published in an accredited national journal or an indexed international journal.</td>
</tr>
<tr>
<td>PLO2.3 Able to perform analytical methods and techniques used in biomedical research.</td>
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<table>
<thead>
<tr>
<th>PLO3. Generic Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLO3.1 Perform effective communication, both orally and in writing.</td>
</tr>
<tr>
<td>PLO3.2 Demonstrate independence and good organizational skills.</td>
</tr>
<tr>
<td>PLO3.3 Demonstrate leadership and good collaborative work.</td>
</tr>
<tr>
<td>PLO3.4 Apply the principles of academic entrepreneurship*</td>
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<table>
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<tr>
<th>PLO4. Attitude</th>
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<tbody>
<tr>
<td>PLO4.1 Demonstrate ethical standards for all intellectual and professional activities in the field of biomedical sciences and healthcare.</td>
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</table>

*Creating strategies for extending the research results for larger people benefit, such as published book, patent, mass production material, community services, etc.
E. Organizational Structure

Organizational Structure of Faculty of Medicine

In line with the mission, an organizational structure of FKUB was established by the Dean’s Decree No. 079/SK/J10.1.17/KP/2007 to professionally manage the study program.

Organizational Structure
Faculty of Medicine, Universitas Brawijaya
(Dean’s Decree No. 079/SK/J10.1.17/KP/2007)
Organizational Structure of Master Program in Biomedical Sciences

The organizational structure of PMIB-FKUB was established by the Dean’s Decree No. 32/SK/UN10.7/KP/2015.

Internal Organizational Structure
Master Program of Biomedical Sciences
Faculty of Medicine, Universitas Brawijaya
(Dean’s Decree No. 32/SK/UN10.7/KP/2015)

F. Academic Staff

Academic staff consists of lecturers, academic advisors, thesis advisors, and thesis examiners.

1. Lecturers

According to Decree of Minister of Research, Technology and Higher Education No. 44 Year 2015 about National Standard of Higher Education, lecturers eligible to teach in the study program are those with a doctoral degree (Dr./Ph.D.) and/or specialist consultant relevant to the field of sciences they teach.
All courses in PMIB-FKUB are conducted by team of lecturers, in which two or more lecturers (multidisciplinary) work together to plan, conduct, and evaluate the integrated outcomes, learning materials, teaching and learning activities, and assessments for the same group/class. This method provides opportunities for interaction with the experts as well as offers a multi-dimensional approach to subject matter. The team-teaching approach can also increase the objectivity in student assessments.

2. Academic Advisors

Academic advising is a collaborative relationship between a student and an academic advisor. The intent of this collaboration is to assist the student in developing meaningful educational goals that are consistent with personal interests, values, and abilities. This collaboration is also intended to foster the development of the whole student who is a self-directed, motivated, responsible decision-maker, as well as encourage the successful completion of degree requirements and timely graduation.

Roles and Responsibilities of Academic Advisors

The academic advisors should meet the student advisees at least 3 times each semester to: (a) plan for the coming semester, (b) assist students in planning a program consistent with their abilities and interests, (c) review the long-range academic program schedules, (d) monitor progress toward educational goals, (e) discuss grades and other performance indicators, (f) interpret and provide rationale for institutional policies, procedures, and requirements, (g) follow-up with the student advisee on any report of unsatisfactory work (notice of poor attendance, failing grades, incomplete grades from past semester(s), etc.), (h) inform and, if necessary, refer student advisee to other institutional resources when academic, attitude, attendance, or other personal problems require intervention by other professionals (e.g., psychologist or psychiatrist appointed by the study program).

3. Thesis Advisors

Thesis advisors are two academic staff at a minimum and three academic staff at maximum responsible for thesis advisory. One of which is the
chairman, and the other(s) is/are member(s). The chairman is a permanent lecturer of UB with a doctoral degree and academic rank of *Lektor* at a minimum. The member(s) must have a doctoral degree while the academic rank is not considered. The thesis advisors for the dual degree with specialist program can be non-permanent academic staff who hold specialist consultant degree at minimum. Thesis advisors should have expertise in different fields to enrich the thesis through inter- and multidisciplinary approaches.

**Responsibility of Thesis Advisors**

The thesis advisors are responsible for: (a) giving advice on research topic, (b) guiding the plan and process of the research and the writing of journal article and thesis manuscript, (c) evaluating the feasibility test of thesis proposal, research implementation, journal article, thesis manuscript, research result seminar, and thesis examination, (d) attending the feasibility test of thesis proposal, research result seminar, and thesis examination of the student advisee, and (e) encourage the successful completion of research process and timely completion of the thesis.

**Procedure of Thesis Advisors Appointment**

At the end of semester II, the thesis advisors should have been appointed. The procedure is as follow:
1. The thesis proposal should be made at the end of semester II.
2. A student proposes two academic staff as thesis advisors to the head of the study program; one as the chairman, and the other as a member.
3. Based on the proposal, the head and secretary of study program hold a coordination meeting to appoint the thesis advisors.
4. Based on certain objective consideration, the appointed advisors may or may not be the same with the names proposed by the student.
5. The result of the meeting is consulted to the Dean for consideration and decision.
6. The Dean then issues a decree of thesis advisors appointment based on the meeting result.
Change in Thesis Advisors

When, for accountable reasons, there is a change in thesis advisor(s), the concerned advisee must propose the new thesis advisor(s) by submitting the changing form to the head of the study program. The head of the study program then consults the Dean for consideration and decision.

A change in thesis advisor(s) is made based on the following reasons: (1) change in thesis title/topic, (2) disagreement on key points of the research between the advisor(s) and advisee, (3) communication barriers impeding the consultation process, (4) the limit of study period, (5) a breach in ethics, moral and social norms, or intimidation, and/or (6) the advisor(s) cannot continue the process of advisory due to certain condition.

4. Thesis Examiners

Thesis examiners are academic staffs who hold, at least, a doctoral degree or a specialist consultant. Every student will be evaluated by two examiners (at minimum) or three examiners (at maximum). The examiners are lecturers of UB or other university/institution (external examiner). Every student is entitled to 1 external examiner only. The accommodation and transportation cost of the external examiner are at the expense of the concerned student. Thesis examiners should have expertise in different fields to enrich the thesis through inter- and multidisciplinary approaches.

Responsibility of Thesis Examiners

Thesis examiners are responsible for attending and evaluating the feasibility test of thesis proposal, research result seminar, and thesis examination.

Procedure of Thesis Examiners Appointment

At the end of semester II, the thesis examiners should have been appointed. The procedure is as follow:
1. Based on the topic of student research (proposal), the head and secretary of study program hold a coordination meeting to appoint the examiners.
2. The result of the meeting, based on objective consideration, is
consulted to the Dean for consideration and decision. 
3. The Dean then issues a decree of thesis examiners committee appointment based on the meeting result.

Change in Thesis Examiners

When, for accountable reasons, there is a change in thesis examiner(s), the head and secretary of study program hold a coordination meeting to appoint the new thesis examiner(s). The head of the study program then consults the Dean for consideration and decision.
Chapter 2
Student Admissions

A. Academic Requirements

1. Candidates should hold a Bachelor (undergraduate degree) certificate on bio-complex sciences (bachelor in medicine and/or medical doctor, dentistry, veterinary, pharmacy, nursing, nutrition, biology, and other related fields).

2. Candidates must have a Grade Point Average (GPA) of ≥ 3.00 (scale of 0.00 to 4.00) from BAN-PT accredited study program. The accreditation mentioned is the current accreditation and proven with a legalized copy of accreditation certificate. GPA for overseas graduates is according to the conversion determined in the study program meeting.

3. Candidates must hold a scholastic test (TPA-OTO BAPPENAS) certificate score of > 500.

4. Candidates must hold an English proficiency certificate equal to institutional paper-based TOEFL score of > 500 or TOEIC score of > 600.

5. Candidates must have produced an academic scientific manuscript.

6. Candidates must pass psychology test and interview conducted by the study program.

7. All candidates meeting both academic and administration requirements must pass matriculation program.

B. Admission as International Students

Study program also opens the admission of overseas students under the UB regulation through International Office of UB (http://io.ub.ac.id/international-student-admission/). International students applying to the study program must:

1. Hold a Bachelor (undergraduate degree) certificate on bio-complex sciences (bachelor in medicine and/or medical doctor, dentistry, veterinary, pharmacy, nursing, nutrition), which is legalized by Indonesian Embassy in the home countries as well as by the Ministry of Research, Technology, and Higher Education of the Republic of Indonesia.
3. Have a paper-based TOEFL score of ≥ 500.
4. Pass academic selection held by the program.

C. Admission for Transfer Program

1. Candidates are from the state or private university with equal or higher accreditation status.
2. Candidates are from study program of biomedical sciences.
3. Candidates have not taken the feasibility test of thesis proposal.
4. Candidates have been studied in the origin institution for no more than two years.

D. Application Process

1. Time of Application
   Application for the odd semester commences from the beginning of February to the end of May while for the even semester commences from the beginning of October to the end of December.

2. Online Registration
   http://selma.ub.ac.id/

3. Candidates send a written application addressed to:
   Dean of Faculty of Medicine
   Universitas Brawijaya

4. Enclosed in the application are two copies of:
   a. Receipt of the registration fee payment.
   b. Completed list of requirements for new student registration (Daftar Persyaratan Pendaftaran Mahasiswa Baru).
   c. Completed application form (Formulir Pendaftaran Mahasiswa Baru).
   d. Latest color photo size 4x6.
   e. Legalized copy of undergraduate (bachelor) certificate.
f. Legalized copy of the academic transcript from the institution of origin. Candidates from private universities must enclose the result of the state examination.

g. Legalized copy of BAN-PT accreditation certificate of the undergraduate study program.

h. A copy of scholastic test (TPA-OTO BAPPENAS) certificate (two-year validity period).

i. A copy of TOEFL (or equivalent) certificate (two-year validity period).

j. Curriculum vitae.

k. A scientific manuscript after completing undergraduate program.

l. Letters of academic recommendation from two qualified referees.

m. Statement of health from a state hospital.

n. Letter of Study Appointment from superiors (if the candidates are in employment) stating that the concerned individual is released of any institutional responsibility. For candidates who are lecturers of state and private universities, the Letter of Study Appointment is to be issued by the rector. For candidates who are the employees of Health Department, the Letter of Study Appointment is to be issued by the direct supervisor, e.g., the director of the hospital or the head of the health department.

o. A written statement of financial sources/support.

p. A copy of identity card. For the international student, temporary identity card (KITAS) from Immigration Office of East Java Province.

5. **All documents are submitted to:**
Academic Affairs Staff of the Postgraduate Program
Faculty of Medicine-Universitas Brawijaya
Jl. Veteran, Malang, East Java 65145
Telephone 0341-569117 ext. 135; Fax 0341-564755

6. **Candidate Selection**
   a. Candidate selection is performed through psychology test (MMPI) and/or interview involving peer group consisting of the head and secretary of the study program, and experts recommended by the head of the study program.
b. The rector makes the decision on accepted candidate through the dean based on the recommendation of the head of the study program.

c. The written notification (admitted or not) is sent to the applicant’s address.

d. All candidates granted admission to the PMIB-FKUB must pass the matriculation program.

The flow chart of student admission procedure is presented in Appendix 1.
Chapter 3
Academic Program

A. Semester Credit System

According to Decree of Minister of Research, Technology and Higher Education No. 44 Year 2015 about National Standard of Higher Education, the teaching and learning process is implemented by using semester credit system in the form of lecture and a range of student-centered learning methods. Each semester consists of 16 weeks teaching and learning process at minimum, including mid-term exam and the final exam.

- **Lecture, tutorial;** one credit per semester equals to 50 minutes classroom meeting, 50 minutes structured assignment, and 60 minutes self-learning per week per semester.
- **Seminar and other similar forms of learning;** one credit per semester equals to 100 minutes meeting and 70 minutes self-learning per week per semester.
- **Laboratory work, research (including thesis), community service, and other similar forms of learning;** one credit per semester equals to 170 minutes per week per semester.

B. Study Load

- The teaching and learning activities must not exceed 24 credits per semester.
- Credits required to complete the program are 42 at a minimum, consisting of 30 credits of lecture and laboratory work and 12 credits of thesis.
- The courses are classified into compulsory courses of the program (14 credits), interest-based compulsory courses (10 credits), and elective courses (6 credits at minimum).

C. Credits per Semester

- The number of credits can be taken in the first semester for students passing the matriculation program is 14 for regular class and 24 for dual degree class.
The number of credits can be taken in semester II, III, and so forth is based on the GPA of the previous semester:

- GPA ≥ 3.50 : up to 24 credits
- GPA ≥ 3.00 to < 3.50 : up to 21 credits
- GPA ≥ 2.75 to < 3.00 : up to 18 credits
- GPA < 2.75 : up to 15 credits

**D. Limit of Study Period**

The program is designed to be completed in 4 semesters or less (3 semesters at minimum). The maximum study period is 8 semesters. Study period excludes academic leave (terminal). Students who cannot complete their study in semester VIII without accountable reasons will be declared “fail” in their study and not be allowed to continue their study in the program.

**E. Academic Registration**

Students of PMIB-FKUB are those who are administratively enrolled to the study program for a particular semester. The student not registered more than two (2) semesters of cumulative and sequential is stated dropout (DO). Registration at the beginning of every semester is compulsory.

Procedure of academic registration as follow:

1. Students come to the appointed bank, show the student ID card, write the name and ID number (NIM) on the transfer form, and then make payment of tuition fee.
2. The appointed bank receive payment transaction following the computer data and then print and validate the receipt.
3. Students receive the tuition fee receipt.
4. Students submit a copy of tuition fee receipt to the Finance Affairs Staff.
5. Students access the SIAM online (http://www.siam.ub.ac.id) to print the Academic Achievement Record (KHS) and Study Plan Record (KRS).
6. Students consult the study progress and study plan with the Academic Advisor.
7. Students submit the following documents to the Academic Affairs Staff: (1) student ID card, (2) a copy of KHS, (3) KRS signed by the academic advisor, and (4) the latest color photo size 3x3 (1 piece).
The flow chart of academic registration procedure is presented in Appendix 2.

F. Attendance

Attendance Requirements

The study program has compulsory attendance requirements for each course: 80% of the meetings of a course. It is the responsibility of the student to know and comply with the appropriate attendance rules.

Absence

In the case of absence due to illness or other personal circumstances, the student is required to inform the lecturer and Academic Affairs Staff before the start of the meeting. The doctor’s note and/or written notification (including the student name, a brief description of the reason, and the expected duration of the absence) should be submitted to the lecturer, and a copy of the document should be submitted to the Academic Affairs Staff.

G. Academic Leave (Terminal)

General Provisions

1. A student has the right to take an academic leave for academic, medical, religious, or other accountable reasons.
2. An academic leave may be granted for the student having paid all of their tuition fees before taking an academic leave.
3. The student is entitled to two (2) semesters of academic leave. However, the student enrolled in dual degree class is entitled to four (4) semesters of academic leave, by the Dean’s Decree on the implementation and stipulation of dual degree program (Dean’s Decree No. 19A/SK/H.10.7/AK/2011) and UB Guideline Book of Education 2015/2016.
4. The leave semester is not counted as part of the period of study.
5. During the academic leave, it is not necessary to pay a tuition fee.
Proposing an Academic Leave

1. The academic leave should be proposed each semester at the latest one month before the academic registration period.
2. Student makes a written request for academic leave (Surat Cuti Akademik) addressed to the Rector, which includes a brief explanation as to the reason for the leave.
3. Student consults to the Academic Advisor about the academic leave.
4. Student asks Finance Affairs Staff of study program to check the completion of tuition fee payment. Then, the staff gives initial (paraf) on the written request.
5. Student asks for approval to the Head of Study Program as well as Vice Dean of Academic Affairs.
6. Student submits the written request to General Affairs Bureau in Rectorate Building 1st floor.
7. Student submits the copy of written request to Finance Affairs Staff of the study program.
8. The Rector issues the decision on granting an academic leave.

Extending the Period of Academic Leave

If additional leave is needed, the student submits a new request. If the student extends the period of academic leave without authorization, the student is required to pay the semester tuition fee (no dispensation).

Resuming of Study after an Academic Leave

For the readmission process, the student shall:
1. Show the approved written request for academic leave (Surat Cuti Akademik) to the Academic Division in Rectorate Building 2nd floor to change the academic status.
2. Submit the copy of approved written request for academic leave to the Budget and Treasury Division in Rectorate Building 5th floor to unblock the payment of tuition fee.

The readmission process should be done during the registration week, before the payment of tuition fee.
The flow charts of the academic leave procedure and the readmission process are presented in Appendix 3 and Appendix 4, respectively.

H. Academic Achievement and Evaluation

Grades

Every course has its requirements students need to fulfill to pass the course. These requirements are mentioned in the teaching plan of each course.

The final grade of a course is counted from the average of grades (based on proportion) of the assignments and exams. Final grade of a course taught by a team of lecturers is the average of grades given by all lecturers. The course coordinator is responsible for compiling and computing the grades, then submitting the final grade to the Academic Affairs Staff.

Conversion Scale

The grade is given according to the following conversion scale:

<table>
<thead>
<tr>
<th>Numerical Grade</th>
<th>Letter Grade</th>
<th>Grade Point</th>
<th>Ability Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 80 – 100</td>
<td>A</td>
<td>4.0</td>
<td>Very Good</td>
</tr>
<tr>
<td>&gt; 75 – 80</td>
<td>B+</td>
<td>3.5</td>
<td>Very Good – Good</td>
</tr>
<tr>
<td>&gt; 69 – 75</td>
<td>B</td>
<td>3.0</td>
<td>Good</td>
</tr>
<tr>
<td>&gt; 60 – 69</td>
<td>C+</td>
<td>2.5</td>
<td>Good – Fair</td>
</tr>
<tr>
<td>&gt; 55 – 60</td>
<td>C</td>
<td>2.0</td>
<td>Fair</td>
</tr>
<tr>
<td>&gt; 50 – 55</td>
<td>D+</td>
<td>1.5</td>
<td>Fair – Bad</td>
</tr>
<tr>
<td>&gt; 44 – 50</td>
<td>D</td>
<td>1.0</td>
<td>Bad</td>
</tr>
<tr>
<td>0 – 44</td>
<td>E</td>
<td>0.0</td>
<td>Very Bad</td>
</tr>
</tbody>
</table>

“K” (no grade) can be assigned when the assessment is incomplete, and no grade can be counted. “K” grade only lasts for two weeks, and then if still incomplete, the final grade is determined based on existing activities, whereas for activities that do not complete the grade is zero.

Student Performance Evaluation

According to UB Guideline Book of Education 2015/2016, the student performance evaluation is as follow:
Students who fail to achieve a GPA of 3.00 (8 credits at minimum) on their first semester will be given a letter of warning for poor performance so that they should improve their academic achievement in the following semester.

Students who fail to achieve a GPA of 3.00 (16 credits at minimum) on their second semester will be declared “fail” in their study and not be allowed to continue their study in the program.

Courses with “D” grades MUST be retaken while those with “C” MAY be retaken. Course retake can only be done once. The highest grade for the retaken course is B. The highest grade will be considered the final grade.

The students who have unsatisfactory grades should contact their academic advisor and course coordinator to discuss ways to improve their academic performance.

Students have taken 24 credits with a GPA of ≥ 3.00, and no grade below C on any course may propose a research for their thesis.

Thesis proposal has to be approved by the thesis advisors, defended and passed the feasibility test conducted by the thesis examiners committee (consisting of thesis advisors and thesis examiners appointed by the Dean).

Students have passed the feasibility test of thesis proposal, completed all required revision, and had their proposal approved by the thesis examiners committee may commence their research.

**Academic Transcript**

The study program will compile the final grades for each course and make an academic transcript indicating the letter grades, the number of credits achieved, and the title of thesis. The academic transcript will be given to the student after the end of the program. Students should notify the Academic Affairs Staff in time if they need the transcript expedited.

**I. Graduation**

The student is declared **PASS** the master’s program, if the student:
1. Has taken at least 42 credits (thesis included) with a GPA of ≥ 3.00 and no grade below C on any course.
2. Has published at least one thesis-related article in an accredited
Students who have published thesis research article(s) in an indexed international journal still have compulsory to complete the thesis and can pass the thesis with “A” grade without examination on approval from the International Scientific Publication Office (PPIKID) of UB (Rector’s Decree No. 224/PER/2010).

Based on Rector’s Letter No. 2140/UN10/LL/2013 of May 2, 2013, before the graduation ceremony (wisuda), the student should:

1. Hold an English proficiency test certificate of internet-based TOEFL with score of ≥ 50 or other equivalent English proficiency tests obtained from English Language Institution at UB or appointed institutions,
2. Hold a certificate of Internet and Computing Core Certification (IC3) obtained from appointed institutions, and
3. Have a thesis-related article published in an accredited national journal or indexed international journal.

J. Predicate of Graduates

Judicium is conducted after students complete all academic and administration requirements. The decision of whether a student has completed all requirements and can join the judicium is made in a pre-judicium meeting. The attendance at judicium is compulsory.

According to UB Guideline Book of Education 2015/2016, the student who has been declared PASS in the pre-judicium meeting gets a predicate of graduation as follow:

Pass with a cum laude predicate: if the student has a GPA of > 3.75 to 4.00 with no grade below B in any course, accomplishes the study in four semesters at maximum, has grade “A” for thesis, and has published thesis-related article(s) in more than one accredited national journals or one indexed international journal.

Pass with a very satisfactory predicate: if the student has a GPA of > 3.75 to 4.00 but does not meet the other criteria mentioned in “cum laude” predicate, or if the student has a GPA of > 3.50 to 3.75 and has published
the thesis-related article in one accredited national journal or one indexed international journal.

Pass with a satisfactory predicate: if the student has a GPA of $\geq 3.00$ to 3.50 and has published the thesis-related article in one accredited national journal or one indexed international journal.

The flow chart of proposing judicium is presented in Appendix 5.

**K. Academic Sanction**

Students must respect the laws applicable at their place of study, as well as the regulations of the university, faculty, and study program, and must abstain from any conduct which might disturb the smooth running and the good name of the institution. Any violations will be penalized, and all sanctions will be imposed by the Academic Council led by the Head of Study Program. No sanction will be imposed without the student being heard by the Academic Council.

According to UB Guideline Book of Education 2015/2016, the violation of the academic regulations will be imposed academic sanction as follow.

1. Students who fail to attend 80% of the meetings of a certain course without accountable reasons are not allowed to join the final exam of the course.
2. Students who drop a certain course beyond the closing date for course cancellation, cannot have the course removed from the study plan record (KRS), and the course is given “E” grade.
3. Students who cheat in an examination will be given “E” grade on the course or have their study plan in that particular semester canceled.
4. Students who sit for other students’ examination and/or students who ask an imposter to sit on their examination will have all examinations for all courses in that particular semester canceled.
5. Students who alter their KRS without the consent of their academic advisor will have all courses in that particular semester canceled.
6. Students who make an illegitimate change on their grade will be suspended for at least two (2) semesters. The suspension is not considered as an academic leave (terminal).
7. Students who commit acts of violence and fights will have all courses in
that particular semester canceled, and other sanctions by the prevailing regulations.

8. Students who do the violations above with the additional threat of violence or bribery (things or promises) or with deception will be expelled from the study program.

9. Students who are convicted of criminal offenses (forgery, fraud, deception, etc.), commit immoral acts, or involve in drug abuse, will be imposed an academic sanction in the form of:
   a. Suspension of at least two (2) semesters, or
   b. Expelled from the study program

**Sanction for Plagiarism**

Any written work submitted by a student is assessed on its originality as well as the depth and breadth of research undertaken. It follows that plagiarism, collusion, and the falsification of data are all prohibited.

Plagiarism is using the work of other people to gain some form of benefit, without formally acknowledging that the work came from someone else. To avoid plagiarism, students should reference correctly, which involves paraphrasing, using appropriate in-text citations, and including an adequate and complete reference list following standard (Harvard or Vancouver reference style). Paraphrasing is using own words to express someone else’s ideas while still preserving the main ideas of the original source. Even when paraphrasing, the writer must still give credit to the original author.

Collusion consists of entrusting to a third party the task of writing all or part of a piece of written work or a thesis but then passing off all of the final product as one’s own work.

Falsifying data consists of deliberately creating and using, in the context of a piece of written work or a thesis, data which one knows to be false, or of altering genuine data to make it support desired conclusions.

If there is indicated plagiarism, collusion, or falsification of data in the assignment, then the work or even the course will obtain a mark of zero. Moreover, if there is indicated plagiarism, collusion, or falsification of data in the thesis, the thesis will be canceled, and the degree will be revoked.
Chapter 4  
Curriculum

A. Curriculum

All students should complete the required **42 cumulative credits** at a minimum, which are scheduled for 4 semesters. Those credits are possible to be accomplished in less than 4 semesters (at least 3 semesters), but no more than 8 semesters (thesis included). This rule is based on the Decree of Minister of Research, Technology, and Higher Education No. 44 Year 2015 about National Standard of Higher Education; Guideline Book IV: BAN-PT 2009 Accreditation, the edition of January 7, 2010; and UB Guideline Book of Education 2015/2016.

Courses consist of 14 credits of compulsory courses, 10 credits of interest-based compulsory courses, and 6 credits of elective courses at a minimum. Class meetings for each course are 16 times in a semester consisting of lectures, assignments, and examinations. Some courses also arrange laboratory works for certain skills. The thesis consisting of 12 credits is scheduled for two semesters at maximum (starts from thesis proposal to thesis examination).

PMIB-FKUB has two classes, regular class, and dual degree class.

Curriculum and the course credits of the **regular class** of PMIB-FKUB:

<table>
<thead>
<tr>
<th></th>
<th>Credits</th>
<th>Semester</th>
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</thead>
<tbody>
<tr>
<td>Compulsory Courses</td>
<td>14</td>
<td>Semester I</td>
</tr>
<tr>
<td>Interest-Based Compulsory Courses</td>
<td>10</td>
<td>Semester II</td>
</tr>
<tr>
<td>Elective Courses</td>
<td>6</td>
<td>Semester II</td>
</tr>
<tr>
<td>Thesis</td>
<td>12</td>
<td>Semester III-IV</td>
</tr>
<tr>
<td><strong>Total credits (at a minimum)</strong></td>
<td><strong>42</strong></td>
<td></td>
</tr>
</tbody>
</table>

Curriculum and the course credits of **dual degree class** of PMIB-FKUB:

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<thead>
<tr>
<th></th>
<th>Credits</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compulsory Courses</td>
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<td>Semester I</td>
</tr>
<tr>
<td>Interest Based Compulsory Courses</td>
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<td>Semester I-II</td>
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<td>Elective Courses</td>
<td>6</td>
<td>Semester I-II</td>
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<tr>
<td>Thesis</td>
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<td>Semester II-IV</td>
</tr>
<tr>
<td><strong>Total credits (at a minimum)</strong></td>
<td><strong>42</strong></td>
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## Curriculum for Anatomy and Histology Concentration

<table>
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<tr>
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<th>Prerequisite Courses</th>
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<tr>
<td>1</td>
<td>I</td>
<td>MAB6103</td>
<td>Cell Molecular Biology</td>
<td>2</td>
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<tr>
<td>2</td>
<td>I</td>
<td>DKF6106</td>
<td>Molecular Genetics</td>
<td>2</td>
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</tr>
<tr>
<td>3</td>
<td>I</td>
<td>DKF6103</td>
<td>Instrumentation and Biomolecular Technique Analysis</td>
<td>3</td>
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<td>4</td>
<td>I</td>
<td>DKF6104</td>
<td>Basic Immunology</td>
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<tr>
<td>6</td>
<td>I</td>
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<td>Research Methodology, Biostatistics and Scientific Writing</td>
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<td>7</td>
<td>I/II</td>
<td>DKF6203</td>
<td>Growth and development</td>
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<td>8</td>
<td>I/II</td>
<td>DKF6215</td>
<td>Medical Anatomy and Histology</td>
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<td>9</td>
<td>I/II</td>
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<td>I/II</td>
<td>DKF6216</td>
<td>Bioinformatics in Biomedical Sciences</td>
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<td>Medical Biochemistry, Molecular Genetics</td>
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<table>
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<tr>
<th>No</th>
<th>Smt.</th>
<th>Code</th>
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<th>Cr.</th>
<th>Prerequisite Courses</th>
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<tr>
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<td>Elective Courses</td>
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<td>(at a minimum)</td>
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<td>Instrumentation and Biomolecular Technique Analysis</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td>Research Methodology, Biostatistics, Scientific Writing</td>
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<tr>
<td>14</td>
<td>II/III-IV</td>
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<td>15</td>
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<td>16</td>
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<td>Journal Article Writing (20%)</td>
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<td>17</td>
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<td>Research Result Seminar (10%)</td>
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<td>Thesis Writing</td>
</tr>
<tr>
<td>18</td>
<td>III-IV</td>
<td>UBU6012</td>
<td>Thesis Examination (20%)</td>
<td></td>
<td>Thesis Writing, Journal Article Writing</td>
</tr>
</tbody>
</table>

**Total Credits 42** (at a minimum)
Curriculum for Pharmacology, Toxicology, and Molecular Physiology Concentration

<table>
<thead>
<tr>
<th>No</th>
<th>Smt.</th>
<th>Code</th>
<th>Courses</th>
<th>Cr.</th>
<th>Prerequisite Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>MAB6103</td>
<td>Cell Molecular Biology</td>
<td>2</td>
<td></td>
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<td>2</td>
<td>I</td>
<td>DKF6106</td>
<td>Molecular Genetics</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>DKF6103</td>
<td>Instrumentation and Biomolecular Technique Analysis</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>DKF6104</td>
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**Total Credits 42 (at a minimum)**
Curriculum for Immunology, Microbiology, Parasitology Concentration

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*Total Credits 42 (at a minimum)*

*For dual degree class with pediatrics can be changed with Growth & Development course.*
## Curriculum for Preventive and Clinical Medicine Concentration

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**Total Credits 42** (at a minimum)

*For dual degree class with pediatrics can be changed with Growth & Development course.*
B. Courses of Study

1. Compulsory Courses of the Program

Compulsory courses of the program (*Mata Kuliah Wajib Program*, WP) with 14 credits are courses that must be obtained by all students of PMIB-FKUB.

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2. Interest-based Compulsory Courses

Interest-based compulsory courses (*Mata Kuliah Wajib Minat*, WM) with 10 credits are selected compulsory courses of a certain concentration.

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3. Elective Courses

Elective courses (*Mata Kuliah Pilihan*, P) with 6 credits at a minimum are supporting topics for the thesis.
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4. Thesis

The thesis (UBU6012) consists of 12 credits with the following proportion of evaluation components:
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### C. Course Descriptions

#### Compulsory Courses of the Program

1. **MAB6103 Cell Molecular Biology 2 credits**

After completing this course, students are expected to be able to (a) demonstrate a comprehensive understanding of the chemical and physical structures-functions of cell organelles (biomembranes, cytoplasm, ribosome, reticulum endoplasm, mitochondria, Golgi complex, lysosomes, centrosomes, vacuoles, nucleus/nucleolus, chromosomes and genes, chloroplasts; matrix extracellular and integrating cells into tissues) and the self-assembly and dynamic structure of cytoskeletal filaments, especially how cells regulate their cytoskeletal filaments (actin filament, microtubule & intermediate filaments); (b) demonstrate a comprehensive understanding of the basic concepts of molecular motors, the cytoskeleton & cell behavior, microtubule organization and dynamics, kinesin- and dynein-powered movements, including molecular motors related cytoskeleton that lead cell movements, microtubule organization, Microtubule Associated Proteins (MAPs), microtubule dynamics and macromolecule powered movements inside the cell; (c) demonstrate a comprehensive understanding of signaling pathways and cell cycle control system, including signaling pathways that control gene activity (JAK-STAT pathway; activation of Ras; MAP kinase pathways), integration of signals and gene control, the cell cycle and cell growth control for regulating mitotic-events and cell-cycle control system in mammalian cells; (d) demonstrate a comprehensive understanding of protein of the cells, proteosomes and proteins, including protein targeting and
protein sorting, protein processing and quality control in the endoplasmic reticulum, the importance of proteosomes–protein study for cell as the importance of genome-gene study; and (e) demonstrate skills in the interpretation of scientific paper relating to the understanding of the roles of cell function and cell system.

Lecturers: Edwin Widodo, S.Si., M.Sc.*
Prof. Drs. Sutiman B. Sumitro, SU., DSc.
Drs. Sofy Permana, M.Sc., D.Sc.
Dr. Dra. Sri Widyarti, M.Si.

2. **MAB6201 Molecular Genetics 2 credits**

After completing this course, students are expected to be able to carry out a genetic analysis for diagnosis, preventive, and curative purposes in human’s disease and genetic disorder context. The main discussions cover human cytogenetics (cell division, chromosome, disorder, diagnosis-examination technique), basic molecular and inherited traits of genetic disease, a molecular level of genetic diagnostic in DNA level (in-del-point and repeats mutation, the disorder caused, examination and the diagnosis), population screening and genetics (not only applied to the patient as an individual but also to the society), and also the clinical aspect (pedigree, counseling, preventive and curative therapy and the development).

Lecturers: Dra. Diana Lyrawati, Apt., MS., Ph.D.*
Dr.rer.nat. Tri Yudhani M. Raras, M.App.Sc.
Dr. dr. Loeki Enggar Fitri, M.Kes., Sp.ParK.
dr. Hidayat Sujuti, Ph.D., Sp.M.
Dr.Med. dr. Tommy A. Nazwar, Sp.BS.

3. **DKF6103 Instrumentation and Biomolecular Technique Analysis 3 credits**

After completing this course, students are expected to be able to perform laboratory analysis in cellular and biomolecular level. The main discussions cover the principal of analytical methods, the preparation
of analytical methods, the methods of operating the instrumentation in laboratory (spectrophotometry and flow cytometry), the technique of isolation and purification of DNA, RNA, and protein, the technique of electrophoresis, Western, Northern, and Southern blotting, cDNA synthesis from mRNA, PCR, cell cultures, as well as the immunostaining methods and bio-assay, along with their applications and interpretation of the results. All materials are explained in the lecture and demonstrated through laboratory works.

Lecturers: Dr. dr. Loeki Enggar Fitri, M.Kes., Sp.ParK.*
Prof. Dr. dr. Sumarno, DMM., Sp.MK.(K).
Agustina Tri Endharti, S.Si., Ph.D.
dr. Hidayat Sujuti, Ph.D., Sp.M.
Dr. Drs. Sasangka Prasetyawan, MS.
Dr. drg. Nur Permatasari, MS.
dr. Siwipeni Irmawanti Rahayu, M.Biomed.

4. **DKF6104 Basic Immunology 2 credits**

After completing this course, students are expected to master the defense mechanism in relation with diseases and various disorders. The main discussions cover the basic cellular and humoral body defense mechanism, and also the role of cellular and humoral defense mechanism in relation with diseases and various disorders as the result of the immunological interaction with the surrounded cells.

Lecturers: Prof. Dr. dr. Kusworini Handono, M.Kes., Sp.PK.*
Prof. Dr. dr. Edi Widjajanto, MS., Sp.PK.(K)
Prof. Dr. dr. Sumarno, DMM., Sp.MK.(K)
Prof. Dr. dr. Sanarto Santoso, DTM&H., Sp.MK.(K).
Dr. dr. Sri Poeranto, M.Kes., Sp.ParK.
Prof. Dr. dr. HMS. Chandra Kusuma, Sp.A.(K)
Dr. dr. Wisnu Barlianto, M.Kes., Sp.A.(K)

5. **DKF6106 Medical Biochemistry 2 credits**

After completing this course, students are expected to master the various processes of cellular biology and physiology mechanism. The
main discussions cover biochemical mechanism which becomes the fundament of normal biological and physiological mechanism, both on the organ or subcellular system level. Carbohydrate, protein and lipid metabolism will be explained in the organ system theory, whereas second messenger biochemistry mechanism and its effect in a variety of protein within the cell as the fundament of cellular biology and physiological mechanism will be explained within the cellular system theory. In the molecular observation, theories about DNA as the information storage and the regulation in the transcription process of DNA into mRNA and the mRNA translation into protein also the DNA destruction and its repair will be discussed.

Lecturers: dr. Hidayat Sujuti, Ph.D., Sp.M.*
Prof. Dr. drh. Aulanni’am, DESS.
Dr.rer.nat. Tri Yudhani M. Raras, M.App.Sc.
dr. M. Saifur Rohman, Sp.JP., Ph.D.

6. DKF6107 Research Methodology, Biostatistics & Scientific Writing 3 credits

This course is an application of the philosophy and basic principles of research sciences and methods. The main discussions focus on the development of scientific thinking process in identifying the health problems to be formulated into biomedical research problems. After completing this course, students are expected to be able to (a) formulate the biomedical research problems and research objectives following the appropriate theoretical concepts; (b) choose the appropriate statistical analysis to solve the research problems, and (c) develop scientific writing skills. The main topics also include the knowledge about how to give a critical appraisal of journals and how to prevent the plagiarism.

Lecturers: Dr. Dra. Sri Winarsih, Apt., MSi.*
Prof. Dr. dr. M. Rasjad Indra, MS.
Dr. dr. Retty Ratnawati, M.Sc.
Dr. dr. Sri Andarini, M.Kes.
Dr. dr. Siswanto, M.PH.
Dra. Diana Lyrawati, Apt., MS., Ph.D.
Interest-Based Compulsory Courses

1. **DKF6202 Toxicology 2 credits**

After completing this course, students are expected to be able to (a) design toxicity tests, (b) analyze the intoxication and toxicant transmission so that the intoxication can be decreased and stopped, and (c) analyze the intoxication incidence both from the aspects of organ target and toxicant substances derived from food and environment. The intoxication analysis is observed on a holistic existence, or in the level of organ and cellular so that both the prevention and medicinal treatment of the toxic effect can be discovered and the toxicology study can be developed. To achieve those competencies, the teaching and learning strategy involves lectures, discussions, journal readings, and scientific paper presented in a seminar.

Lecturers: Dr. dr. Setyawati Karyono, M.Kes.*
Dr. dr. Nurdiana, M.Kes.
Dr. dr. Endang Sri Wahyuni, MS.

2. **DKF6203 Growth and Development 2 credits**

After completing this course, students are expected to master the principles of the growth and developments including the limitation and various kinds of growth and development aspects and factors influencing the problems of growth and development from fertilization to neonates. Specifically, students are expected to master (a) the basic concept of embryology, (b) the limitation and various kinds of growth and development aspects, including the growth and development of various organs, abnormalities, factors affecting the growth and development (the impacts of nutrient, micro- and macronutrient, medicines, and infection), (c) the ontogeny and development patterns of tissue, the basic needs and factors influencing the development, and also (d) gene mutation in the congenital defects.
3. **DKF6204 Advanced Epidemiology 2 credits**

After completing this course, students are expected to be able to (a) analyze the epidemiology data, (b) plan the epidemiology study design to identify the health risk factor in individual and community, and also (c) demonstrate the epidemiology application in solving the health problems (certain diseases). This course discusses the basic concept of epidemiology, epidemiology study’s cycle, epidemiology parameter, epidemiology study design, and epidemiology application on the specific disease.

Lecturers: Dr. dr. Sri Andarini, M.Kes.*
Dr. dr. Jack Roebijoso, M.Occ.
Dr. dr. Siswanto, M.PH.

4. **DKF6205 Advanced Immunology 2 credits**

After completing this course, students are expected to master the disease pathomechanisms observed from immunology aspects. The main discussions cover pathogenesis of the diseases related to the cellular and sub-cellular immunology processes, and also protein and lipid mediator effects in the pathomechanism of immunologic diseases.

Lecturers: Dr. dr. Kusworini Handono, M.Kes.*
Prof. Dr. dr. Edi Widjajanto, MS., Sp.PK.(K)
Prof. Dr. dr. Sumarno, DMM., Sp.MK.(K)
Prof. Dr. dr. Sanarto Santoso, DTM&H., Sp.MK.(K)
Prof. Dr. dr. Handono Kalim, Sp.PD.(KR)
Prof. Dr. dr. HMS. Chandra Kusuma, Sp.A.(K)
Dr. dr. Wisnu Barlianto, M.Kes., Sp.A.(K)
5. **DKF6206 Molecular Biology of Infectious Diseases 2 credits**

After completing this course, students are expected to master the biomolecular phenomenon related to the pathomechanisms of infectious disease. The main discussions cover the molecular basis and immuno-pathogenicity of infectious diseases, the characteristics of bacteria, virus, and parasite pathogenicity, and also the strategy of the immune system and vaccination developments.

Lecturers: Prof. Dr. dr. Sumarno, DMM., Sp.MK.(K)*
  Prof. Dr. dr. Sanarto Santoso, DTM&H., Sp.MK.(K)
  Prof. Dr. dr. Noorhamdani, DMM., Sp.MK.(K)
  Prof. Dr. dr. Teguh Wahyu Sardjono, DTM&H., Sp.ParK.
  Dr. dr. Loeki Enggar Fitri, M.Kes., Sp.ParK.
  Dr. dr. Dwi Yuni Nur Hidayati, M.Kes.

6. **DKF6207 Pathobiology 2 credits**

After completing this course, students are expected to master the pathogenesis of diseases. The main discussions cover the pathobiology change and the mechanism of cellular physiology and biology system changes as the result of certain disease with an observation on cellular biochemistry changes.

Lecturers: Dr. dr. Tinny Endang Hernowaty, Sp.PK.*
  Prof. Dr. dr. Djanggan Sargowo, Sp.PD., Sp.JP.(K), FIHA,
      FCAPC, FESC
  Prof. Dr. dr. Edy Widjajanto, MS., Sp.PK.(K)
  Dr. dr. Karyono Mintaroem, Sp.PA.
  Dr. dr. Tatit Nurseta, Sp.OG.(K)

7. **DKF6209 Biosciences and Biotechnology 2 credits**

After completing this course, students are expected to be able to (a) demonstrate a comprehensive understanding of the principles of fundamental of HPLC, (b) demonstrate a comprehensive understanding of the basic concepts of DNA cloning methods and their clinical applications, (c) demonstrate skills in the interpretation of flow
cytometry data related with detection of apoptosis and cell cycle analysis then analyze their data by using Cell Quest software, also demonstrate skills in the interpretation of culture of monocyte cells, and (d) demonstrate skills in the interpretation of clinical data relating to PCR result as supporting data to diagnosis of disease.

Lecturers: Agustina Tri Endharti, S.Si, Ph.D.*
Dr. dr. Loeki Enggar Fitri, M.Kes., Sp.ParK.
Dr.rer.nat. Tri Yudhani M. Raras, M.App.Sc.
dr. Dian Nugrahenny, M.Biomed.

8. **DKF6211 Basic Preventive Medicine 2 credits**

After completing this course, students are expected to master the concept and application of preventive medicine with the biomedical approach in the individual and community level. The course discusses the basic concepts of preventive medicine according to health determinant, the interaction among human-environment-agent of disease, and the natural process of diseases in individual and community level; analyzes the prevention strategy of infectious, degenerative, and nutritive diseases in the primary, secondary, and tertiary levels; and also discusses the application of biomedical methods and technology in preventive medicine.

Lecturers: Dr. dr. Sri Andarini, M.Kes.*
Dr. dr. Jack Roebijoso, M.Occ.
Prof. Dr. dr. Teguh Wahyu Sardjono, DTM&H., MSc.,
Sp.ParK.
Prof. Dr. dr. Djanggan Sargowo, Sp.PD., Sp.JP.(K), FIHA,
FCAPC, FESC
Prof. Dr. dr. Noorhamdani AS., DMM., Sp.MK.

9. **DKF6214 Pharmacology and Molecular Physiology 2 credits**

After completing this course, students are expected to master the pharmacokinetics, pharmacodynamics, basic clinical pharmacology, and physiological process in cellular and molecular levels. The main discussions cover the effects of medicine or chemical substance in cell
or organ of animals and human in a healthy or ill condition, to master the basic cellular mechanism of the organization/function of healthy and ill cells (pharmacodynamics); the effects of a healthy organ or human toward the kinetics of the medicine (pharmacokinetics); the application of medicine in certain disease or condition (basic clinical pharmacology); and the physiological process in cellular and molecular levels.

Lecturers: Dr. dr. Retty Ratnawati, M.Sc.*
Prof. dr. M. Aris Widodo, MS., Sp.FK., Ph.D.
Prof. Dr. dr. M. Rasjad Indra, MS.
Dr. drg. Nur Permatasari, MS.

10. DKF6215 Medical Anatomy-Histology 2 credits

After completing this course, students are expected to master the basic structures of the human body, anatomy, and morphology of organs and organ systems of human, including musculoskeletal, respiratory system, cardiovascular system, digestive system, urogenital system, and neuroanatomy. Students are also expected to be able to analyze the movements of the human body (kinesiology) and apply the science of anatomy-histology.

Lecturers: Dr.Med. dr. Tommy A. Nazwar, Sp.BS.*
Prof. Dr. dr. Moch. Hidayat, Sp.OT.
Dr. dr. Karyono Mintaroem, Sp.PA.
Dr. dr. Masruroh Rahayu, M.Kes.

11. DKF6216 Bioinformatics in Biomedical Sciences 2 credits

After completing this course, students are expected to (a) demonstrate a comprehensive understanding of bioinformatics and its clinical implications, also bioinformatics workflow, protein structures and proficient to predict 2D and 3D of protein structures by using bioinformatics’ tools; (b) demonstrate the ability to analyze interaction between two molecules (its energy and stability), to use bioinformatics to design vaccine and proficient to predict antigenicity, immunogenicity, and peotope mapping, and also to use molecular
docking software to analyze the binding affinity of two molecules, able to use DS and ligplot to analyze ligand-receptor; (c) demonstrate a comprehensive understanding of DNA barcoding, genome database and proficient to analyze the database for identify polymorphism (SNPs, and haplotype), and also designing primer; (d) demonstrate a skill on finding gene & gene function, sequence alignment and proficient to perform aligning sequence to predict sequence similarity and apply it in biomedical field; and also (e) demonstrate a comprehensive understanding of the implementation of bioinformatics to analyze microarray data and proficient to analyze gene pathways; understanding about RNA database and proficient to predict RNA structure and designing siRNA; understanding about protein database and proficient to predict protein function, protein classification, protein function from the database; and understanding how to use bioinformatics for drug discovery and development.

Edwin Widodo, S.Si., M.Sc., Ph.D.
Dra. Diana Lyrawati, Apt., MS., Ph.D.

D. Teaching and Learning Strategy

PMIB-FKUB conducts student-centered learning strategy to develop a dynamic learning environment and also to stimulate quality learning and life-long learning, through a range of active learning methods, e.g., journal reading and critical appraisal, scientific paper, oral presentation, group discussion, laboratory work, research project, journal article writing, seminar, etc. Information about the teaching and learning strategy per course can be found in the teaching plan of the course.

E. Student Assessments

Methods of Student Assessment

Part of each course is the student assessment to determine whether the student has achieved the learning outcomes set for the course in a satisfactory manner. Student assessment method varies per course. In most courses, students have to pass a written examination at the end of the
course (final exam), but it is also possible that the examination consists of a mid-term exam, take home exam, scientific paper, or oral presentation. The assessment may also include portfolio, research project, article/manuscript writing, etc.

PMIB-FKUB develops criterion-referenced assessments to measure objectively student performance against an explicit set of criteria stated in a rubric. Students can use the information in the assessment rubric to develop, revise, and judge their work. Students will be graded on each criteria of assessment, and these count towards the final grade. Information about the assessment method per course can be found in teaching plan of the course.

**Exam Schedule and Registration**

Information about the time, date, and location of the exam is written in teaching plan of the course. All registered students are automatically registered for exams.

**Regulations during the Exam**

- **Be on time!**
  Students may enter the exam room 15 minutes before the start of the exam. After the official starting time of the exam, students will no longer be allowed access to the exam room. Those who arrive late (even if this is only 1 minute) will not be allowed to take part in the exam.

- **Bring the student ID card**
  Access to the examination premises is restricted to students enrolled in the study program at the time of examination. Students are only entitled to participate in the exam if they can provide a valid student ID card placed visibly on the table. Students who are unable to provide their student ID card can use another form of identification: identity card, driver’s license, passport, or any other official proof of identification. If a student cannot provide proof of identity during the examination, he/she is not entitled to take part in or further complete the examination and must leave the room.
- **Take a seat**
  Students must take their places by the seating plan or the instructions of the invigilator at the entrance to the exam room. Coats and bags must be placed under the seat on the floor. Students may not walk through or leave the room during the examination without an invigilator’s permission. Contact in any form whatsoever with other examinees is not permitted.

- **No mobile phones**
  Students must follow the instructions of the invigilator or exam coordinator at all times. During exams, it is not allowed to have mobile phones or other gadgets within reach. These devices need to be turned off and placed in a bag on the floor. The exam will be declared invalid if students do not comply with this rule, resulting in a failing grade.

- **Permitted materials**
  Students should only have access to a pen, pencil, eraser, and valid student ID card. Notes can be made on paper provided by the invigilator. Students are not allowed to have any reference material (books, articles, notes or other material) or information devices (e.g. notebook) on their table during the exam, except for the open book exam.

- **When students are finished**
  After a student has handed in the exam to the invigilator and left the room, he/she can no longer re-enter. Thirty minutes before the exam officially ends, an announcement will indicate the remaining time and inform students to remain seated until the end of the exam. Students must remain seated until the invigilator has collected their work from their tables. After that, they may leave the room. Students must return the answer sheet by the end of the exam or whenever an invigilator requires them to do so.

### Make-Up Exams

1. In case a student is unable to complete an exam during regularly scheduled classroom time due to illness or other accountable reasons, the student is required to inform the lecturer and Academic Affairs Staff before the exam begins.

2. The doctor’s note and/or written notification (including the student name, a brief description of the reason, and the expected duration of
the absence) should be submitted to the Academic Affairs Staff, and a copy of the document should be submitted to the lecturer.

3. The student should obtain a permission letter from the head of the study program to be able to attend the make-up exam.

Student Appeal Procedures

Complaint on Assessment Result

Students can appeal to the course coordinator for their assessment result within a maximum of 7 days after the assessment result is officially released. Students are urged to lodge an appeal in a case that they receive a failing grade or if they have questions about the assessment result.

Complaint on Assessment Component

A complaint against assessment component must be submitted in writing to the head of the study program. The curriculum development unit will then hold a coordination meeting with the head and secretary of the study program and also the related course coordinator. The head of the study program takes a reasoned decision within 15 working days after receiving the request. Students will be notified of the decisions in writing. The flow charts of procedure of complaint on assessment result and procedure of complaint on assessment component are presented in Appendix 6 and Appendix 7, respectively.

F. Thesis

Thesis acts as the final assignment for students of master’s program, in the form of scientific writing based on the result of research. It is written by established guideline and supervision of thesis advisor committee. Thesis is equal to 12 credits and consists of several stages: (a) thesis proposal writing, (b) feasibility test of thesis proposal, (c) ethical review by the Institutional Ethics Committee of FKUB, (d) research implementation, (e) journal article writing and thesis writing, (f) research result seminar, and (g) thesis examination.
Thesis Proposal

The thesis proposal is a scientific writing which contains research plan. The writing of thesis proposal must follow the established guidelines. The proposal covers:

The introduction contains the background of the study, the existence of phenomena which is worth researching, theoretical framework, formulation of the research problem, and objective of the research.

Literature Review presents data and/or scientific information from various reputable journal articles that support or contradict the proposed research problem. This chapter also includes inconclusive opinions on the investigated problem. Based on the literature review, students analyze the problem to come up with a new concept to research.

Research Methods cover methods used by the researcher to approach the problem, sample selection, variables used in the research, how to measure, analyze, and test them, what materials/devices/program to be used, and how the result is presented. Information on place and time of research, as well as other relevant information concerning the research, are also presented in this chapter.

References contain a list of scientific publications that the researcher cites in the process of proposal writing. References are written according to the Guideline of Thesis and Dissertation Writing of Postgraduate Program of FKUB.

Feasibility Test of Thesis Proposal

Students proposing the feasibility test of thesis proposal must:
1. Have paid all of their tuition fees,
2. Have taken 24 credits with a GPA of ≥ 3.00 with no grade below C on any course, and

The procedure of proposing the feasibility test of thesis proposal as follow:
1. Student takes the approval form for feasibility test in the Academic
Affairs Staff.
2. Student proposes the date of feasibility test to thesis examiners committee (consisting of thesis advisors and thesis examiners).
3. Thesis examiners committee approves the date of feasibility test and then gives signature on the approval form.
4. Student submits the approval form to the Academic Affairs Staff.
5. The head of the study program approves the feasibility test.
6. The Academic Affairs Staff makes invitation letters for the thesis examiners committee.
7. Student sends the invitation letters and the approved thesis proposal manuscripts to thesis examiners committee at the latest three days before the test.
8. Student submits one (1) copy of the approved thesis proposal manuscript to the Academic Affairs Staff at the latest three days before the test.
9. The Academic Affairs Staff sends the approved thesis proposal manuscript to thesis monitoring and evaluation team.
10. The feasibility test of thesis proposal can be conducted.

The test is led by the chairman of thesis advisors. If for accountable reasons, the chairman cannot attend the test, he/she can ask the member to take his/her place. The test can be held if it is attended by two thesis examiners with at least one thesis advisor. The thesis advisor who cannot attend the test is still required to test outside the forum. The test is also attended by one chairman/member of thesis monitoring and evaluation team to monitor the objectivity, focus, and flow of the test, as well as the required documentations. The General Affairs Staff provides snack or lunch box for the thesis examiners committee and thesis monitoring and evaluation team.

The feasibility test takes around 90 minutes and focuses on the thesis proposal. The components of evaluation are the thesis proposal manuscript, presentation, and student’s ability to argue scientifically.

Although the thesis examiners committee determine the grade for the student, the final grade of the thesis proposal is decided by discussion. The passing grade for the feasibility test is “B” at a minimum. If a student cannot meet this minimal requirement, he/she is given a chance to repeat the test.
once. If the student fails the second test, he/she must revise the thesis proposal or is declared “fail” in the study and must not be allowed to continue study in the program.

The thesis proposal that has been approved by thesis advisors and passed the feasibility test will then be legalized by the head of the study program. Following the legalization of the proposal, the concerned student may propose the ethical clearance and then conduct the research. The flow chart of the procedure of feasibility test of thesis proposal is presented in Appendix 8.

Research Implementation

Research is an academic program for the student, involving experimental or non-experimental design, and the result of which will be used in writing the thesis. The research can be conducted in other areas outside Malang or in laboratories to approach the research objectives, with the approval of the thesis advisors. Before commencing a research, the student has to complete and submit all administrative requirements to the Academic Affairs Staff, including ethical clearance by the Institutional Ethics Committee of FKUB.

Research implementation should be well-documented in a Thesis and Research Log Book provided by the Academic Affairs Staff. The research is conducted under the supervision of the thesis advisors. The assessment form of research implementation is reported by the thesis advisors to the Academic Affairs Staff. It is also documented as one of the evaluation components of the thesis. A student who has completed the research should immediately write a journal article and thesis manuscript, as well as prepare for research result seminar.

Journal Article and Thesis Manuscript Writing

Journal article is written based on part of or whole research results, following the instructions of the designated journal (accredited national journal or indexed international journal). The accredited national journal is Indonesian journal accredited by Directorate General for Higher Education (DIKTI). Whereas the indexed international journal is a journal with editors
and authors from at least three countries, and it is indexed by Scopus, Web of Science, Microsoft Academic Search, Thomson Reuter, DOAJ, CABI, Copernicus, or EBSCO. The article should NOT be published in predatory journals or publishers. The list of predatory journals or publishers can be accessed online: [http://scholarlyoa.com/](http://scholarlyoa.com/). Journal article approved by the thesis advisors is used as the material for research result seminar. Thesis advisors are responsible for the substance of the journal article and are entitled to be included as authors.

Thesis manuscript is written based on the research results, following the established guideline of thesis and dissertation writing. It is used as the material for research result seminar and thesis examination.

### Research Result Seminar

Students proposing the research result seminar must:

1. Have paid all of the tuition fees,
2. Have attended at least ten research result seminars of relevant topic(s),
3. Have written the thesis manuscript,
4. Have written and/or submitted a thesis-related article for publication in an accredited national journal or an indexed international journal, and
5. Thesis advisors approve the thesis-related article for publication in an accredited national journal or an indexed international journal.

The procedure of proposing a research result seminar as follow:

1. Student takes the approval form for research result seminar in the Academic Affairs Staff.
2. Student proposes the date of research result seminar to the thesis examiners committee (consisting of thesis advisors and thesis examiners).
3. Thesis examiners committee approves the date of feasibility test and then gives signature on the approval form.
4. Student submits the following documents to the Academic Affairs Staff: (a) the approval form for research result seminar, (b) yellow form which shows that the student has attended at least 10 research result seminars of relevant topic(s), and (c) one copy of thesis-related article.
5. The head of the study program approves the research result seminar.
6. The Academic Affairs Staff makes invitation letters for the thesis examiners committee.
7. Student sends (a) the invitation letters, (b) approved thesis manuscripts, and (c) thesis-related article in journal format to the thesis examiners committee at the latest three days before the seminar.
8. The student must provide the copies of the thesis-related article in journal format for the audiences.
9. There is no obligation for student to provide snacks for the audiences, but the student is allowed to give, if not burdensome.
10. The research result seminar can be conducted.

The research result seminar is held by study program and attended by thesis examiners committee, students (at least ten students), and other parties who are interested in the topic of the seminar, as well as people who are purposefully invited by the student or advisors to contribute suggestion for thesis manuscript improvement. The seminar can be held if it is attended by two thesis examiners with at least one thesis advisor. The thesis advisor who cannot attend the seminar is still required to examine outside the forum. The seminar is moderated by one student from the study program. The seminar can be performed by more than one paper presenter and a maximum of three paper presenters (panel forums).

Material for the seminar is a journal article approved by the thesis advisors. The evaluation of seminar is based on several criteria: journal article, presentation, and the student’s ability to argue scientifically. The expected outcome of the seminar is a thesis-related article eligible to be published in an accredited national journal or indexed international journal. The flow chart of the procedure of research result seminar is presented in Appendix 9.

**Thesis Examination**

The student proposing the thesis examination must:
1. Have paid all of the tuition fees,
2. Have conducted a research result seminar,
3. Have submitted a thesis-related article in an accredited national journal or an indexed international journal (a statement from the editorial
board that the article has been submitted and is under review is required),

4. Have thesis manuscript approved by thesis advisors (thesis advisors give signature on the approval sheet of thesis manuscript), and

5. Have undergone plagiarism-free certification for thesis manuscript.*

The procedure of proposing the thesis examination as follow:

1. Student takes the approval form for thesis examination in the Academic Affairs Staff.
2. Student proposes the date of thesis examination to thesis examiners committee (consisting of thesis advisors and thesis examiners).
3. Thesis examiners committee approves the date of thesis examination and then gives signature on the approval form.
4. Student submits the following documents to the Academic Affairs Staff: (a) the approval form for thesis examination, (b) statement from the editorial board that the thesis-related article has been submitted and is under review, and (c) certificate of plagiarism-free for thesis manuscript.*
5. The head of the study program approves the thesis examination.
6. The Academic Affairs Staff makes invitation letters for the thesis examiners committee.
7. Student sends the invitation letters and the approved thesis manuscripts to thesis examiners committee at the latest three days before the exam.
8. Student submits one (1) copy of the approved thesis manuscript to the Academic Affairs Staff at the latest three days before the exam.
9. The Academic Affairs Staff sends the approved thesis manuscript to thesis monitoring and evaluation team.
10. The thesis examination can be conducted.

The thesis examination cannot be held outside the exam forum. It is led by the chairman of thesis advisors. If the chairman cannot attend the examination, he/she can ask the member to take his/her place. The examination can be held if it is attended by two thesis examiners with at least one thesis advisor. The thesis advisor who cannot attend the examination is still required to examine outside the forum. The examination is also attended by one chairman/member of thesis monitoring and evaluation team to monitor the objectivity, focus, and flow of the exam, as
well as the required documentations. The General Affairs Staff provides snack or lunch box for the thesis examiners committee and thesis monitoring and evaluation team.

The thesis examination takes around 100 minutes. The material is the thesis manuscript. Some of the evaluation components are thesis mastery and the ability to present and defend the thesis comprehensively.

Although the thesis examiners committee determine the grade for the student, the final grade of thesis examination is decided by discussion. The passing grade for the thesis examination is “B” at a minimum. If a student cannot meet this minimal requirement, he/she is given a chance to repeat the examination once. If the student fails the second examination, he/she must revise the thesis or is declared “fail” in the study.

Thesis manuscript revision, as suggested by the thesis examiners committee, must be completed at the latest one month after thesis examination. If the student fails to finish the thesis revision within the time limit with no satisfactory explanation, the chairman of the thesis advisors may propose that the concerned student repeats the thesis examination.

A student who has completed the thesis (with written approval from the thesis examiners committee) should submit at least three copies of thesis manuscript: two for thesis advisors and one for the study program. The copies of thesis manuscript are legalized with the signature from thesis examiners committee and the Dean. The flow chart of the procedure of thesis examination is presented in Appendix 10. Also, the form for thesis monitoring and evaluation is presented in Appendix 11.

**Thesis Evaluation Components**

Thesis makes up 12 credits with the following proportion of evaluation components:

1. Thesis proposal 10%
2. Research implementation 20%
3. Thesis writing 20%
4. Journal article writing 20%
5. Research result seminar 10%
6. Thesis examination 20%

The evaluation on point number 2 and 4 is given by thesis advisors, while point number 1, 3, 5 and 6 are given by thesis examiners committee consisting of thesis advisors and thesis examiners. The given grade must be following the established system (A, B+, B, C+, C, D+, and D). The final grade is the average of the total sum of the six points (based on the proportion).

G. Curriculum and Program Evaluations

At the end of the semester, students are asked to fill questionnaires to evaluate the performance of lecturers and courses they have followed. Moreover, lecturers are also asked to fill a questionnaire to evaluate the performance of study program.

Annually, the study program evaluates the GPA achieved by students, study period, and time needed for thesis completion. Per three years, the study program also distributes questionnaires to graduates (tracer study) and employers and holds a stakeholders meeting to evaluate the curriculum, graduates profile, and performance of study program. All evaluation results are reviewed by the study program and used to improve the quality of education and the quality of study program management.

H. Academic Schedule

PMIB-FKUB has two classes, regular class, and dual degree class. To help students finish their study on time, the academic activity is scheduled as follow.
### Regular Class

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>1.</td>
<td>Compulsory courses of the program (14 credits)</td>
<td>✔</td>
</tr>
<tr>
<td>2.</td>
<td>Interest-based compulsory courses (10 credits)</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Elective courses (min.6 credits)</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Appointment of thesis advisors</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Thesis proposal writing</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Feasibility test of thesis proposal</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Research implementation</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Data analysis and journal article writing</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Thesis manuscript writing</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Research result seminar</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Thesis examination</td>
<td></td>
</tr>
</tbody>
</table>

### Dual Degree Class

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>1.</td>
<td>Compulsory courses of the program (14 credits)</td>
<td>✔</td>
</tr>
<tr>
<td>2.</td>
<td>Interest-based compulsory courses (10 credits)</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Elective courses (min.6 credits)</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Appointment of thesis advisors</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Thesis proposal writing</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Feasibility test of thesis proposal</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Research implementation</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Data analysis and journal article writing</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Thesis manuscript writing</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Research result seminar</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Thesis examination</td>
<td></td>
</tr>
</tbody>
</table>

- Regular agenda
- Extension agenda
Chapter 5
Facilities

A. Office and Lecture Rooms

The office of PMIB-FKUB is mainly located in Graha Medika (Building C) 1st floor involving 419.45 m² area in total. There are an office for the head and secretary of the study program, office for supporting staff, exam room, international classroom, seminar room (80 chairs in R. 107), and reading room. There are also classrooms in Building of Educational Center (GPP/Building A, 3rd floor) involving 48.9 m² area with 10 chairs in R. 3.16 and 30 chairs in R. 3.20, and classroom in the Central Laboratory of Biomedicine (Building G, 1st floor) involving 132.87 m² area with 20 chairs.

Classrooms are equipped with white board, LCD projector, and air-conditioner. Each building is equipped with full internet access which can be easily accessed by all students, lecturers, and supporting staff. The usage of the room is scheduled by the General Affairs Staff collaborated with Academic Affairs Staff.

B. Laboratories

Research activities in the field of biomedical sciences are supported by laboratories in the faculty and university. There are nine laboratories in the faculty (http://www.fk.ub.ac.id):
1. Central Laboratory of Biomedicine.
2. Laboratory of Anatomy and Histology.
3. Laboratory of Biochemistry and Biomolecule.
4. Laboratory of Clinical Pathology.
5. Laboratory of Human Physiology.
6. Laboratory of Microbiology.
7. Laboratory of Parasitology.
8. Laboratory of Pathology Anatomy.
9. Laboratory of Pharmacology.

These laboratories are facilitated with sufficient equipment and management following ISO 9001:2008 standards. Each laboratory is opened 8 hours per day on Monday to Friday (8 a.m. to 4 p.m.). In the necessary
condition, the laboratory is available on weekend and holiday. Each laboratory has experienced technicians, standard operational procedures for all activities, as well as guidelines and records of equipment utilization.

Central Laboratory of Biomedicine (LSB) facilitates research activities and laboratory tests in the field of biomedical sciences. LSB also develops research collaboration in the field of tropical diseases and degenerative diseases. Nowadays, LSB has confirmed its prime services consisting of CD4 and CD8 detection using flow cytometry for the diagnosis and monitoring of HIV infection, as well as detection of malaria species using PCR for diagnosis. Moreover, LSB is currently preparing for the international certification of ISO 15189:2012 for a medical laboratory.

The students and lecturers are entitled to use the laboratories at university, including Central Laboratory of Life Sciences (LSIH) and Bioscience Laboratory (LBioS), to raise the productivity and quality of research. LSIH has achieved the certification of ISO 17025:2005 (http://lsih.ub.ac.id/). Whereas, LBioS is an integrated research laboratory based on the Good Laboratory Practice (GLP) and Good Manufacturing Practice (GMP), which was formed to accommodate the synergy of Academy-Business-Government (http://biosains.ub.ac.id/). LBioS now collaborates with PT. Bio Farma (Persero) to produce the diagnostic kit for diabetes type 1 granted patent by Prof. Aulanni’am, the lecturer of PMIB-FKUB.

C. Libraries

To support the teaching and learning process, the university, faculty, and study program provides reading rooms (libraries) and virtual library. The reading room provides textbooks, final project reports, journals, and other
references, and also room for scientific discussion among the students and/or the lecturers.

Most references are stored in UB Central Library (http://digilib.ub.ac.id). Literature regarding medicine in UB Central Library comprises of 4,818 titles of textbooks, 7,242 titles of e-books, 44 national journals, and 42,553 international journals. Most references are published after the year 2000. The central library is opened 16 hours per day (Monday to Friday) and 9 hours (Saturday-Sunday).

FKUB also provides reading rooms which are spread across each study program. Materials relevant to biomedical sciences are also stored in the reading room of PMIB-FKUB, including 116 textbooks with the newest release in the year 2014. Moreover, Medical Education Study Program has more than 5,000 kinds of literature. Pharmacy Study Program has 2,098 kinds of literature. Nursing Study Program has 600 kinds of literature. Hundreds of references are also provided in the reading room of other study programs. This number is constantly and being updated throughout the year.

Besides, for the virtual library, UB subscribes to ScienceDirect, SpringerLink, Scopus, Proquest, ASCE Library. The links are provided on the official website: http://biomedical.fk.ub.ac.id.

D. Information and Communication Technology

UB uses Single Sign On (SSO) system with an integrated username and password through UB Authentication and Identification System (BAIS). Lecturers and staff can use internet coverage inside UB by using email accounts obtained from the Center for Development of Technology and Information UB (PPTI-UB). Students can also use internet coverage using PIN number obtained from the PPTI-UB when they first registered as new students.

FKUB has 96 access points consisting of 46 points in the faculty and 50 points in dr. Saiful Anwar Hospital (RSSA), the main teaching hospital. FKUB has authentication system for internet access, which requires all users to
register the IP address of their gadgets to the Information and Communication Technology Unit (TIK) of the faculty in Building A 1st floor.

The internet service can also be accessed from PC terminals throughout the faculty. FKUB has 10 units of public PC terminals in several places: 5 units in the Central Education Building (GPP, Building A) 1st floor and the rest are distributed in Graha Medika (Building C) 1st floor, Central Laboratory of Biomedicine (LSB), Public Health Laboratory, and TKP-PPDS Building in dr. Saiful Anwar Hospital.

The information regarding the university, faculty, and study program can be accessed through websites: http://www.ub.ac.id, http://www.fk.ub.ac.id, and http://biomedical.fk.ub.ac.id, respectively. The university also provides the online information system to support the academic activities.

E. Supporting Facilities

Accredited National Journal

In the faculty, there is Jurnal Kedokteran Brawijaya (JKB), a national journal achieved grade B accreditation by the Minister of Education and Culture. JKB has published many manuscripts written by undergraduate students (S1), master’s degree students (S2), Ph.D. students (S3), researchers, and lecturers. The manuscripts are written as original/research articles, case reports, and critical-analytical studies in the field of medicine. Further information can be accessed on website: http://www.jkb.ub.ac.id.

Indexed International Journal

In the university, there is an international journal covered the study in theoretical, experimental, and applied life sciences, namely Journal of Tropical Life Science. The journal is indexed by DOAJ, Google Scholar, Index Copernicus, CABI, and Cross Ref. Further information can be accessed on website: http://www.jtrolis.ub.ac.id.
Health Services

In the faculty, there is a small health center with one unit of ambulance. There is also UB Clinic, which provides various public medical and health services, including health insurance for academic community members of UB. Further information can be accessed on website: http://poliklinik.ub.ac.id.

Job Placement Center

Job Placement Center (JPC) is the center of job information, as well as the center of training and development to prepare the students and alumni to be able to compete in the labor market and have an entrepreneurial spirit, to face the era of globalization. Further information can be accessed on website: http://jpc.ub.ac.id/.

Language Unit

Language Unit provides service for UB community and public related to the field of foreign language, Indonesian language for foreign speakers, translations, also foreign language competence tests and their preparations. Further information can be accessed on website: http://www.fib.ub.ac.id/UPT_Bahasa.

UB Press

UB Press is a publishing unit aims to press and publish various books in physical and electronic forms. Further information can be accessed on website: http://ubpress.ub.ac.id.

Other Supporting Facilities

The faculty provides prayer room (mushalla), cafeteria, copy center, bookstore, and health center equipped with one ambulance. Furthermore, the university provides mosque “Raden Patah”, clinic, food court, minimarket, dormitory, guest house, hotel, post office, bank and ATM, sport facilities (such as basketball court, indoor and outdoor soccer court, badminton court, fitness center, etc.), also Entrepreneurship Training
Center (INBIS). There are also Children Learning Center (*Rumah Pintar*) consisting of a library and playing room for children, as well as Children Center consisting of daycare, playgroup, and kindergarten. Other supporting facilities provided are gazebo and WIFI area as well as the parking area.

For a student who needs further psychological support, the study program provides counseling team which consists of the secretary of the study program and academic advisor. Should the counseling team is unable to provide assistance, the student will be referred to the Counselling Committee in the faculty.
Chapter 6
Student Exchange Program

As globalization continues to blur geographic and cultural boundaries, a new world has begun to emerge. The study program believes that global awareness and intercultural understanding are essential parts of higher education for today’s student. Therefore, the study program encourages the students to engage in some form of student exchange program.

A student exchange program may be undertaken by the students to satisfy the following broad objectives:

- To gain first-hand exposure to and experience living in another culture;
- To gain a deeper understanding of and appreciation for their culture/heritage;
- To become more self-reliant and independent;
- To become more aware of international issues and concerns;
- To improve the English proficiency; and
- To study about more advanced technique and methods in the field of biomedical sciences.

To assist the study abroad experience, the faculty and university have established affiliations with several institutions to provide a variety of student exchange programs. The study program has arranged exchange programs with some qualified institutions, including Ludwig Maximillians University Munich in Germany, Kumamoto University in Japan, Kanazawa University in Japan, Mahidol University in Thailand, National University of Singapore, University of Malaya in Malaysia, etc.
The programs are open to all students. The exchange may last from one month up to a year. Students can propose an academic leave (terminal) during the exchange. Participants in these student exchange programs are representatives of the study program while abroad and are expected to act in a way that reflects positively on the study program. Students should submit a report within one month after completion of the exchange.

To begin the process, students interested in studying abroad should visit the UB International Office, where they will receive individualized advising and instructions on how to complete the required documentation. The additional information about the exchange program may also be found on official website of UB International Office: [http://io.ub.ac.id](http://io.ub.ac.id).
Appendix 1. Flow Chart of Student Admissions

Verification

Administrative requirements:
1. Completed application form.
2. Latest color photo size 4x6 (2 pieces).
3. Legalized copy of undergraduate (bachelor) certificate.
4. Legalized copy of academic transcript for undergraduate (bachelor).
5. Legalized copy of BAN-PT accreditation certificate of undergraduate study program.
6. Copy of scholastic test (TPA-OTO BAPPENAS) certificate (two-year validity period).
7. Copy of TOEFL (or equivalent) certificate (two-year validity period).
8. Curriculum vitae.
9. A scientific manuscript after completing undergraduate (bachelor) program (for certain candidates only).
10. Letters of academic recommendation from two qualified referees.
11. Statement of health from a state hospital.
12. Letter of Study Appointment from Rector, Director of Hospital, or Head of Health Department.
13. Written statement of financial sources or support.
14. Copy of identity card. For international student, temporary identity card (KITAS) from Immigration Office of East Java Province.

Academic requirements:
1. Conformity of disciplinary background.
2. Grade Point Average (GPA) for domestic undergraduate must not be less than 3.00 (scale of 0-4). International student will undergo approved conversion.
3. Hold a scholastic test (TPA-OTO BAPPENAS) certificate score of ≥ 500.
4. Hold an English proficiency certificate equal to institutional paper-based TOEFL score of ≥ 500 or TOEIC score of ≥ 600.
5. Has conducted research or scientific work as undergraduate student.
Appendix 2. Flow Chart of Academic Registration Procedure

<table>
<thead>
<tr>
<th>Student</th>
<th>Appointed Bank</th>
<th>Finance Affairs Staff of Study Program</th>
<th>Academic Advisor</th>
<th>Academic Affairs Staff of Study Program</th>
<th>Document</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tuition fee receipt</td>
<td>1 day</td>
</tr>
<tr>
<td>Come to the appointed bank</td>
<td>Make payment of tuition fee</td>
<td>Receive the payment transaction in accordance with computer data; Print and validate the receipt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receive the tuition fee receipt</td>
<td>Submit the copy of tuition fee receipt to Finance Affairs Staff</td>
<td>Archiving the file</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access SIAM online (<a href="http://siam.ub.ac.id/">http://siam.ub.ac.id/</a>) to print the Academic Achievement Record (KHS) and Study Plan Record (KRS)</td>
<td>Consult the study progress and study plan with the Academic Advisor</td>
<td>Provide academic advising</td>
<td>KHS &amp; KRS</td>
<td>Archiving the file</td>
<td>Finish</td>
<td>1 day</td>
</tr>
<tr>
<td>Submit: (1) student ID card, (2) copy of KHS, (3) KRS signed by academic advisor, (4) latest color photo size 3x3 to the Academic Staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: The student not registered more than two (2) semesters of cumulative and sequential is stated drop out (DO).
## Flow Chart of Procedure of an Academic Leave (Terminal)

<table>
<thead>
<tr>
<th>Time</th>
<th>1 day</th>
<th>1 month</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Document</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rector</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Academic Advisor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Head of Study Program &amp; Vice Dean of Academic Affairs</strong></td>
<td></td>
<td>Issue the decision on granting academic leave</td>
</tr>
<tr>
<td><strong>Finance Affairs Staff of Study Program</strong></td>
<td></td>
<td>Finish</td>
</tr>
<tr>
<td><strong>Student</strong></td>
<td>Make a written request for academic leave addressed to Rector</td>
<td></td>
</tr>
<tr>
<td><strong>Academic Affairs Staff of Study Program</strong></td>
<td>Check the completion of tuition fee payment</td>
<td>Give initial (paraf) on written request</td>
</tr>
<tr>
<td><strong>Start</strong></td>
<td>Provide the format of written request for academic leave</td>
<td>Submit the written request to the General Affairs Bureau in Rectorate Building 1st floor</td>
</tr>
</tbody>
</table>
### Appendix 4. Flow Chart of Procedure of Resuming of Study after Academic Leave

<table>
<thead>
<tr>
<th>Time</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>Approved written request for academic leave</td>
</tr>
</tbody>
</table>

**Start**

1. **Finance Affairs Staff of Study Program**
   - Provide the approved written request for academic leave

2. **Student**
   - Show the approved written request for academic leave to the Academic Division in Rectorate Building 2nd floor

3. **Academic Division in Rectorate Building 2nd floor**
   - Change the academic status

4. **Budget and Treasury Division in Rectorate Building 5th floor**
   - Unblock the payment of tuition fee
   - Submit one copy of the approved written request to the Budget and Treasury Division in Rectorate Building 5th floor

5. **Budget and Treasury Division in Rectorate Building 5th floor**
   - Pay tuition fee, Academic registration

**Finish**
Appendix 5. Flow Chart of Procedure of Proposing Judicium

<table>
<thead>
<tr>
<th>Academic Affairs Staff of Study Program</th>
<th>Student</th>
<th>General Affairs Staff of Study Program</th>
<th>Head of Study Program</th>
<th>Document</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the completion of tuition fee payment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide forms for judicium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit 1 textbook to be collected in study program library</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Check the requirements</td>
<td></td>
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</tr>
<tr>
<td>Ask approval to the Head of Study Program</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Prepare the judicium ceremony</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finish</td>
<td></td>
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</tr>
</tbody>
</table>

- **Judge** application form, **Thesis manuscript revision form**, **Thesis manuscript submission form**, Laboratory completion form
- **Completed forms**:
  - Judge application form, Thesis manuscript revision form, Thesis manuscript submission form, Laboratory completion form;
  - KHS, Statement from editorial board, Academic advising book, Textbook receipt

Time:
- 5 min
- 10 min
- 7 days

Notes:
- Complete all forms then submit the following documents to the Academic Affairs Staff: (1) Judge application form, (2) thesis manuscript revision form, (3) thesis manuscript submission form, (4) laboratory completion form, (5) Academic Achievement Records (KHS) accessed online on SIAM (http://siam.ub.ac.id/), (6) statement from editorial board that the thesis-related article is accepted to be published in journal, (7) academic advising book, (8) textbook receipt.
- List of judicium candidates, judicium record to be signed by the Dean and the head of study program.
Students can appeal to the course coordinator for their assessment result within a maximum of 7 days after the assessment result is officially released.
Appendix 7. Flow Chart of Procedure of Complaint on Assessment Component

The head of the study program takes a reasoned decision within **15 working days** after receiving the request. Students will be notified of the decisions in writing.
Appendix 8. Flow Chart of Procedure of Feasibility Test of Thesis Proposal

<table>
<thead>
<tr>
<th>Academic Affairs Staff of Study Program</th>
<th>Student</th>
<th>Thesis Advisors</th>
<th>Thesis Examiners</th>
<th>Monev Team</th>
<th>Document</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 day</td>
</tr>
<tr>
<td>Check the completion of tuition fee payment</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Provide the approval form for feasibility test</td>
<td></td>
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</tr>
<tr>
<td>Propose the date of feasibility test to thesis advisors and thesis examiners</td>
<td></td>
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</tr>
<tr>
<td>Approve the date</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Give signature on the approval form</td>
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<td></td>
</tr>
<tr>
<td>Make invitation letters for the thesis examiners committee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15 min</td>
</tr>
<tr>
<td>Submit the approval form to the Academic Affairs Staff</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Send the invitation letters &amp; approved thesis proposal manuscripts to thesis examiners committee; and Submit 1 copy of approved thesis proposal manuscript to the Academic Affairs Staff at the latest 3 days before test</td>
<td></td>
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</tr>
<tr>
<td>Review the thesis proposal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 day</td>
</tr>
<tr>
<td>Invitation letters signed by head of study program; Approved thesis proposal manuscripts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finish</td>
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<td></td>
</tr>
</tbody>
</table>
### Appendix 9. Flow Chart of Procedure of Research Result Seminar

<table>
<thead>
<tr>
<th>Academic Affairs Staff of Study Program</th>
<th>Student</th>
<th>Thesis Advisors</th>
<th>Thesis Examiners</th>
<th>Document</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start</strong></td>
<td>Propose the date of research result seminar to thesis advisors and thesis examiners</td>
<td>Approve the date</td>
<td>Approve the date</td>
<td>Approval form for research result seminar</td>
<td>1 day</td>
</tr>
<tr>
<td><strong>Check the completion of tuition fee payment</strong></td>
<td>Provide the approval form for research result seminar</td>
<td>Give signature on the approval form</td>
<td>Give signature on the approval form</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Make invitation letters for the thesis examiners committee</strong></td>
<td>Submit: (1) the approval form, (2) yellow form which shows that the student has attended at least 10 research result seminars of relevant topic(s), and (3) 1 copy of thesis-related article to the Academic Affairs Staff</td>
<td></td>
<td>Approval form, Yellow form, Thesis-related article, Invitation letters</td>
<td>15 min</td>
<td></td>
</tr>
<tr>
<td><strong>Send:</strong></td>
<td>Provide the copies of thesis-related article for the audiences</td>
<td>Review the thesis manuscript and article</td>
<td>Review the thesis manuscript and article</td>
<td>Invitation letters signed by head of study program; Approved thesis manuscripts; Thesis-related article</td>
<td>1 day</td>
</tr>
<tr>
<td><strong>Finish</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 10. Flow Chart of Procedure of Thesis Examination

<table>
<thead>
<tr>
<th>Academic Affairs Staff of Study Program</th>
<th>Student</th>
<th>Thesis Advisors</th>
<th>Thesis Examiners</th>
<th>Monev Team</th>
<th>Document</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check the completion of tuition fee payment</td>
<td></td>
<td></td>
<td></td>
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<td>Provide the approval form for feasibility test</td>
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<tr>
<td>Propose the date of thesis examination to thesis advisors and thesis examiners</td>
<td></td>
<td>Approve the date</td>
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<tr>
<td>Make invitation letters for the thesis examiners committee</td>
<td></td>
<td></td>
<td>Give signature on the approval form</td>
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<tr>
<td>Submit: (1) the approval form, (2) statement from editorial board that the thesis-related article has been submitted and is under review, and (3) certificate of plagiarism-free for thesis manuscript to the Academic Affairs Staff</td>
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<tr>
<td>Send the invitation letters &amp; approved thesis manuscripts to thesis examiners committee; and Submit 1 copy of approved thesis manuscript to the Academic Affairs Staff at the latest 3 days before test</td>
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<td>Review the thesis manuscript</td>
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<td>Send the approved thesis manuscript to thesis monev team</td>
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<td>Finish</td>
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<tr>
<td>Approval form for thesis examination</td>
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<td>Approval form, Statement from editorial board; Certificate of plagiarism-free; Invitation letters</td>
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<td>1 day</td>
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<tr>
<td>Approval form, Statement from editorial board; Certificate of plagiarism-free; Invitation letters</td>
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<td>Invitation letters signed by head of study program; Approved thesis manuscripts</td>
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<td>15 min</td>
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</table>
### Appendix 11. Form for Monitoring and Evaluation of Thesis

**Student’s Name:** ......................................................................................................................

**NIM:** ..............................................................................................................................................

**Thesis Title:** .....................................................................................................................................
............................................................................................................................................................

**Examination:** : Feasibility Test of Thesis Proposal/ Thesis Examination *)

<table>
<thead>
<tr>
<th>No</th>
<th>Component</th>
<th>Give Circle</th>
<th>Additional Information</th>
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<tbody>
<tr>
<td>A</td>
<td>Thesis</td>
<td></td>
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<tr>
<td></td>
<td>1. Thesis writing format is following the established standard</td>
<td>Yes/No</td>
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<tr>
<td></td>
<td>2. Suitability of the philosophical foundation of the research to the research topic</td>
<td>Yes/No</td>
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<tr>
<td></td>
<td>3. Suitability of the research methods</td>
<td>Yes/No</td>
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<tr>
<td></td>
<td>4. Duplication of the research topic with existing results</td>
<td>Yes/No</td>
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<tr>
<td>B</td>
<td>Thesis Examiners Committee</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1. The number of members of the committee is in accordance with the established standard</td>
<td>Yes/No</td>
<td></td>
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<tr>
<td></td>
<td>2. The qualification of thesis examiners committee is in accordance with the established standard</td>
<td>Yes/No</td>
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<td></td>
<td>3. Thesis examiners committee has expertise in different fields to enrich the thesis through inter- and multidisciplinary approach</td>
<td>Yes/No</td>
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<td></td>
<td>4. Thesis examiners committee is capable of performing the task in accordance with the established standard</td>
<td>Yes/No</td>
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<tr>
<td>C</td>
<td>Examination</td>
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<tr>
<td></td>
<td>1. The number of attending members of the committee is in accordance with the established standard</td>
<td>Yes/No</td>
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<td></td>
<td>2. The examination resembles corrective effort of the thesis manuscript (there is no/less discussion, or thesis examiners</td>
<td>Yes/No</td>
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</table>
### Academic Handbook 2015/2016

**Master Program in Biomedical Sciences, Faculty of Medicine-Universitas Brawijaya**

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<tr>
<td>committee is more dominating than the student</td>
<td>Yes/No</td>
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<tr>
<td>3. The length of examination time is in accordance with the established standard</td>
<td>Yes/No</td>
</tr>
<tr>
<td>D Plagiarism</td>
<td>Yes/No</td>
</tr>
<tr>
<td>E Enclosure of the research ethical clearance **)</td>
<td>Yes/No</td>
</tr>
<tr>
<td>F Enclosure of journal submission statement from the editorial board of an accredited national journal or indexed international journal, but not predatory journal **)</td>
<td>Yes/No</td>
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<tr>
<td>G <strong>Note:</strong></td>
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</tbody>
</table>

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Malang, ..................................................
Thesis Monev Committee,

________________________________
NIP.

*) Strikethrough one; **) Requirement for Thesis Examination