BACHELOR OF VETERINARY MEDICINE

FACULTY OF VETERINARY MEDICINE
UNIVERSITAS AIRLANGGA
2024

PREFACE

We are grateful to Allah the Almighty for His grace that this book compilation can be well completed on time. This is the Guidebook for the Educational Implementation of Bachelor's degree Program of Faculty of Veterinary Medicine at UniversitasAirlangga.

This guidebook can be used as a reference for students, lecturers, academic and student affair staff in notion, comprehension on the applied regulations for administering education, curriculum, evaluation system and quality assurance. It is also equipped, in details, with academic documents consisting of procedure manual, work instruction and learning forms, academic advisement reports, and thesis seminar forms as well as Guidelines for Education Program for Doctor of Veterinary Medicine (PPDH).

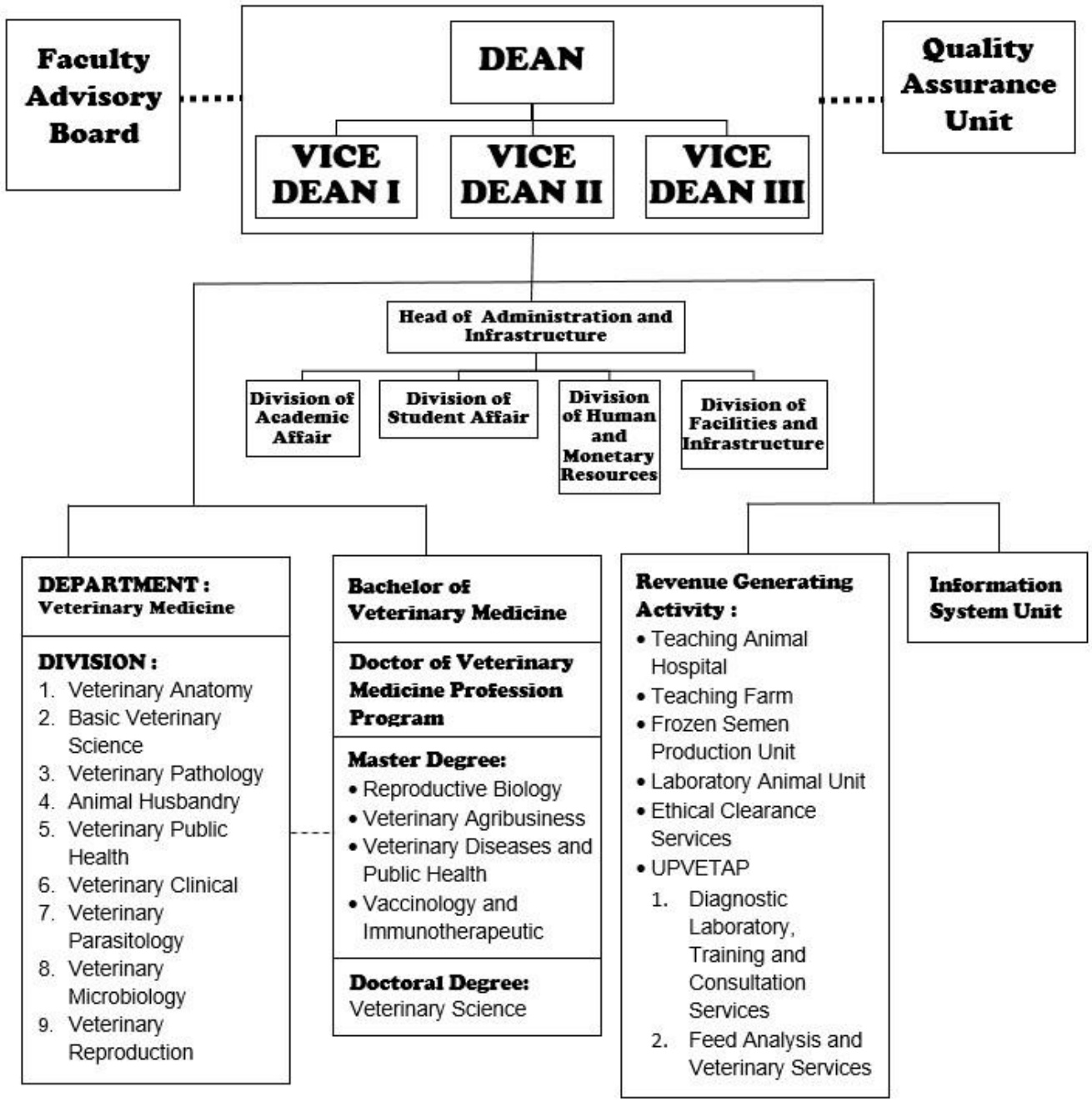
An "A" accreditation status has been granted to the Faculty of Veterinary Medicine of Universitas Airlangga from National Accreditation Board for Higher Education (LAM-PTKes) for Bachelor's degree study programs (S1) and Profession Program for Doctor of Veterinary Medicine (2020-2025). In addition, Bachelor of Veterinary Medicine (S1) Study Program has obtained ASIIN International Accreditation (2019-2024), a certificate has been awarded from an ASEAN University Network (AUN) since 2014 and Association of the Indonesian Faculty of Veterinary Medicine (AFKHI), and also *Ikhtiraf* (Veterinary's Order) from the Malaysian Government in year 2011, and received ISO 9001: 2015 Certification, IWA2: 2007, ISO 21001: 2018,Excellent Education System Base on Malcolm Baldridge National Quality Award (MBNQA), as a member of the South East Asia Veterinary School Association (SEAVSA), Association Institute of Tropical Veterinary Medicine (AITVM) and the Association of Indonesian Veterinary Medicine Faculties (AFKHI).

Surabaya, August 12, 2024
Dean,

signed

Prof. Dr. Mirni Lamid, drh., M.P.
NIP.196201161992032001

ORGANIZATIONAL STRUCTURE
FACULTY OF VETERINARY MEDICINE
UNIVERSITAS AIRLANGGA
2020-2025



DEAN : Prof. Dr. Mirni Lamid, drh., MP
VICE DEAN I : Dr. Rimayanti, drh., M.Kes
VICE DEAN II : Prof. Dr. Iwan Sahrial Hamid, drh., M.Si
VICE DEAN III : Prof. Dr. Mustofa Helmi Effendi, drh., DTAPH

STUDY PROGRAM COORDINATOR (KPS)

UNDERGRADUATE PROGRAM OF VETERINARY MEDICINE
(Prof. Dr. Lilik Maslachah, drh., M.Kes.)

CLINICAL ROTATION PROGRAM (DVM)
(Yulianna Puspitasari, drh., MVSc., Ph.D.)

MASTER DEGREE REPRODUCTION SCIENCE
(Dr. Erma Safitri, drh., M.Kes.)

MASTER DEGREE AGRIBUSINESS SCIENCE
(Prof. Dr. Widya Paramita Lokapirnasari, drh., MP.)

MASTER DEGREE VETERINARY PUBLIC HEALTH AND INFECTIOUS SCIENCE
(Dr. Eka Pramyrtha Hestianah, drh., M.Kes.)

MASTER DEGREE VACCINOLOGY AND IMMUNOTHERAPEUTIC
(Prof. Dr. Jola Rahmahani, drh., M.Kes.)

DOCTOR DEGREE VETERINARY SCIENCE
(Prof. Dr. Lucia Tri Suwanti, drh., MP.)

DEAN'S DECISION
LETTER
FACULTY OF VETERINARY MEDICINE
UNIVERSITAS AIRLANGGA

No. 218/UN3.1.6/2023

About :

THE APPLICATION OF THE GUIDELINES FOR THE IMPLEMENTATION OF THE BACHELOR'S DEGREE OF VETERINARY MEDICINE
FACULTY OF VETERINARY MEDICINE
UNIVERSITAS AIRLANGGA
2023

Dean of the Faculty of Veterinary Medicine, Universitas Airlangga

Weigh : a That in order to support the successful implementation of education at the Faculty of Veterinary Medicine, Universitas Airlangga, it is necessary to establish the 2023 Veterinary Medicine Undergraduate Education Guidelines for the Faculty of Veterinary Medicine, Universitas Airlangga

b That in connection with point (a), it is necessary to issue a Decree of the Dean of the Faculty of Veterinary Medicine, Universitas Airlangga.

Remember : 1 Law Number 20 of 2003 concerning the National Education System (State Gazette of the Republic of Indonesia 2003 Number 78, Supplement to the State Gazette of the Republic of Indonesia Number 4301;

2 Government Regulation Number 30 of 2006 concerning the Determination of Universitas Airlangga as a BHMN (LNRI 2006 No. 66);

3 Government Regulation Number 30 of 2014 concerning the Statutes of Universitas Airlangga (LNRI No. 100, TLN 5535);

4 Decree of the Minister of Education and Culture of the Republic of Indonesia Number: 055/O/1972 dated March 25, 1972 concerning the Establishment of the Faculty of Veterinary Medicine, Universitas Airlangga;

5 Decree of the Minister of National Education of the Republic of Indonesia Number: 232/U/2000 concerning Guidelines for the Preparation of Higher Education Curriculum and Assessment of Student Learning Outcomes;

6 Regulation of the Board of Trustees Number: 12/P/MWA-UA/2008 concerning the Universitas Airlangga Bylaws;

7 Rector Regulation No. 42 of 2016 concerning the Organizational Structure and Work Procedures of Universitas Airlangga;

8 Rector Regulation No. 6933/J03/KP/2007 concerning the

Organizational Structure and Management of Faculties within Universitas Airlangga;

9 Decree of the Chancellor of Universitas Airlangga Number 762/UN3/2020 concerning the Appointment of Deans of Faculties and Directors of Postgraduate Schools of Universitas Airlangga;

10 Universitas Airlangga Education Guidelines 2022/2023.

Notice : 1 Results of the Joint Agreement between the Indonesian Veterinary Association and the Faculty of Veterinary Medicine, Bogor Agricultural University, Universitas Airlangga, Gadjah Mada University, Udayana University and Syah Kuala University on Improving the Quality of the Indonesian Veterinary Profession through: Veterinary Profession Competence, Legal Aspects of the Authority of the Veterinary Profession, Establishment of the Veterinary Professional Education Council and Veterinary Paramedic Competence, February 4, 2005;

2 Results of the Competency-Based Curriculum Development Workshop through Curriculum Redesign on 14 – 20 April 2005;

3 Results of the 2008 Curriculum Evaluation, 2010 Curriculum Redesign and 2013 Curriculum Review;

4 Results of the 2013 Curriculum Evaluation, 2016 Curriculum Redesign and the determination of the results of the 2016 curriculum redesign signed by the Chairperson of the Faculty Advisory Board (BPF) and approved by the Chancellor in 2019;

5 Results of the 2019 Curriculum Evaluation, 2021 Curriculum Redesign and determination of the results of the 2021 curriculum redesign signed by the Chairperson of the Faculty Advisory Board (BPF);

Decide :

Set First : Approving the validity of the updated 2023 Veterinary Medicine Undergraduate Education Guidelines for the Faculty of Veterinary Medicine, Universitas Airlangga with the following stages

1 The entire contents of the Veterinary Medicine Undergraduate Education Guidebook, Faculty of Veterinary Medicine, Universitas Airlangga, apply to students starting from the 2023/2024 intake and onwards;

2 For students from previous intakes, the Education Guidebook for the relevant Academic Year will still apply.

Second : Provisions concerning education that have not been stipulated in this Decree will be stipulated later;

Third : This decision shall come into effect from the date of its stipulation, with the provision that if at a later date it is found that there are deficiencies and errors in this decision, they will be corrected as appropriate;

Fourth : Decisions that are contrary to this Decision Letter, are stated to be no longer valid.

Set in : Surabaya
On: August 31, 2023

Dean,

ttd.

Prof. Dr. Mirni Lamid, Dr., M.P.
NIP 196201161992032001

Copy submitted to Yth. :
- Chancellor of Universitas Airlangga

DEAN'S DECISION
LETTER
FACULTY OF VETERINARY MEDICINE
UNIVERSITAS AIRLANGGA

No. 219/UN3.1.6/2023

About :

TEAM OF COMPILATION OF THE GUIDELINES FOR VETERINARY MEDICINE BACHELOR DEGREE FACULTY OF VETERINARY MEDICINE UNIVERSITAS AIRLANGGA 2023

Dean of the Faculty of Veterinary Medicine, Universitas Airlangga

Weigh :
a That in the implementation of education in order to produce graduates in accordance with the development of science and technology and meet the demands of development, it is necessary to hold a 2023 Veterinary Medicine Undergraduate Education Guidebook for the Faculty of Veterinary Medicine, Universitas Airlangga;
b That in this regard, it is necessary to form a Team to Draft the 2023 Veterinary Medicine Undergraduate Education Guidelines for the Faculty of Veterinary Medicine, Universitas Airlangga;
c That in connection with points (a) and (b), it is necessary to issue a Decree of the Dean of the Faculty of Veterinary Medicine, Universitas Airlangga.

Remember :
1 Law Number 20 of 2003 concerning the National Education System (State Gazette of the Republic of Indonesia 2003 Number 78, Supplement to the State Gazette of the Republic of Indonesia Number 4301;
2 Government Regulation Number 30 of 2006 concerning the Determination of Universitas Airlangga as a BHMN (LNRI 2006 No. 66);
3 Government Regulation Number 30 of 2014 concerning the Statutes of Universitas Airlangga (LNRI No. 100, TLN 5535);
4 Decree of the Minister of Education and Culture of the Republic of Indonesia Number: 055/O/1972 dated March 25, 1972 concerning the Establishment of the Faculty of Veterinary Medicine, Universitas Airlangga;
5 Decree of the Minister of National Education of the Republic of Indonesia Number: 232/U/2000 concerning Guidelines for the Preparation of Higher Education Curriculum and Assessment of Student Learning Outcomes;
6 Regulation of the Board of Trustees Number: 12/P/MWA-UA/2008 concerning the Universitas Airlangga Bylaws;
7 Rector Regulation No. 42 of 2016 concerning the Organizational

Structure and Work Procedures of Universitas Airlangga;

8 Rector Regulation No. 6933/J03/KP/2007 concerning the Organizational Structure and Management of Faculties within Universitas Airlangga;

9 Decree of the Chancellor of Universitas Airlangga Number 762/UN3/2020 concerning the Appointment of Deans of Faculties and Directors of Postgraduate Schools of Universitas Airlangga;

10 Universitas Airlangga Education Guidelines 2023/2024.

Decide:

Set First : Compiling the 2023 Veterinary Medicine Undergraduate Education Guidebook for the Faculty of Veterinary Medicine, Universitas Airlangga;

Second : Appointing the Committee Team for Compiling the Educational Guidelines for the Faculty of Veterinary Medicine, Universitas Airlangga 2023;

Third : This decision is effective from the date of stipulation, with the provision that if it turns out that there are deficiencies and errors in this decision, they will be corrected as appropriate.

Set in : Surabaya
On : August 31, 2023
Dean,

ttd.

Prof. Dr. Mirni Lamid, Dr., M.P.
NIP 196201161992032001

Copy submitted to Yth. :

- Rector of Universitas Airlangga
- Dean at Universitas Airlangga
- Concerned

Attachment : Decree of the Dean of the Faculty of Veterinary Medicine, Universitas Airlangga Number: 218/UN3.1.6/2023 dated August 31, 2023 concerning the Compilation Team for the Undergraduate Veterinary Medicine Education Guidebook, Faculty of Veterinary Medicine, Universitas Airlangga 2023

TEAM OF COMPILATION OF THE GUIDELINES FOR VETERINARY MEDICINE BACHELOR DEGREE FACULTY OF VETERINARY MEDICINE UNIVERSITAS AIRLANGGA YEAR 2023

Person responsible : 1. Dean of the Faculty of Veterinary Medicine
Prof. Dr. Mirni Lamid, drh., M.P
2. Deputy Dean I of the Faculty of Veterinary Medicine
Dr. Rimayanti, drh., M.Kes.
3. Deputy Dean II of the Faculty of Veterinary Medicine
Prof. Dr. Iwan Sahrial Hamid, drh
4. Vice Dean III of the Faculty of Veterinary Medicine
Prof. Dr. Mustofa Helmi Effendi, drh., DTAPH

Chief : Prof. Dr. Lilik Maslachah, drh., M.Kes.
Vice Chairman : Ratna Damayanti, drh., M.Kes.

Member : 1. Prof. Dr. Tita Damayanti Lestari, drh., M.Sc
2. Martia Rani Tacharina, drh., M.Sc.
3. Dian Ayu Permatasari, drh., M.Vet.

Set in : Surabaya
On : August 31, 2023 Dean,

ttd.

Prof. Dr. Mirni Lamid, Dr., M.P.
NIP 196201161992032001

TABLE OF CONTENTS

CHAPTER I PRELIMINARY

Based on the Decree of the Minister of Education and Culture of the Republic of Indonesia Number: 055/D/1972 on March 25, 1972, the Faculty of Veterinary Medicine officially became the sixth Faculty in Universitas Airlangga.

The 2020 – 2025 Board of Directors of Faculty of Veterinary Medicine of Universitas Airlangga consist of:

Dean	: Prof. Dr. Mirni Lamid, drh., M.P.
Vice Dean I	: Dr. Rimayanti, drh., M.Kes.
Vice Dean II	: Prof. Dr. Iwan Sahrial Hamid, drh., M.Si.
Vice Dean III	: Prof. Dr. Mustofa Helmi Effendi, drh., DTAPH

The study programs in the Faculty of Veterinary Medicine of Universitas Airlangga include:

1. Bachelor's Degree(S1) Program:
   a. Veterinary Medicine Program (SKH)
      Head of Program: Prof. Dr. Lilik Maslachah, drh., M.Kes.;
2. Professional Program:
   a. Veterinary Medicine Professional Program (drh.)
      Head of Program: Yuliana Puspitasari, drh., MVSc., Ph.D.;
3. Master's Degree (S2) Program:
   a. Master Degree in Reproductive Biology (M.Si)
      Head of Program: Dr. Erma Safitri, drh., M.Kes.;
   b. Master Degree in Veterinary Diseases and Public Health (M.Si)
      Head of Program: Dr. Eka Pramyrtha H., drh., M.Kes.;
   c. Master DegreeinVeterinary Agribusiness (M.Vet)
      Head of Program: Prof. Dr. Widya Paramita L, drh., MP.;
   d. Master Degree in Vaccinology and Imunotherapeutics (M.Si)
      Head of Program: Prof. Dr. Jola Rahmahani, drh., M.Kes.
4. Doctor's Degree (S3):
   a. Doctoral Degree in Veterinary Science (Dr)
      Head of Program: Prof. Dr. Lucia Tri Suwanti, drh., MP.

CHAPTER II
EDUCATION MANAGEMENT SYSTEM

1. VISION

To become a leading department on national and international levels and in the development of education and research in the field of veterinary and animal husbandry, which is based on independence through moral, ethical, environmentalsustainability, and through animal-welfare consciences by remaining oriented toward public welfare

2. MISSION

a. To provide academic, profession, and specialist educations in the field of veterinary and animal husbandry which is based on modern educational technology, which can produce graduates with profesional ability and strong motivation to develop their knowledge as well as their entrepreneurial ethos, which uphold religious morality and ethics;
b. To conduct basic, applied, and policy-oriented research programs which are highly qualified and innovative in the veterinary and livestock fields to support the development of science, education and community service based on religious morals, ethics, environmental sustainability and animal welfare;
c. To dedicate and provide services of veterinary science and animal husbandry expertise to society;
d. To establish mutually beneficial partnerships with related institutions in order to achieve independence of the faculty which focuses on its quality and competitiveness at national and international levels.

3. EDUCATIONAL OBJECTIVES

a. Produce knowledgeable and ethical graduates who possess a strong foundation in veterinary and animal husbandry sciences, preparing them for further professional education or to compete in related fields at the national and international levels.
b. Facilitate research-based learning that introduces students to innovative approaches in solving basic problems in veterinary science and animal husbandry, contributing to the development of science and technology.
c. Promote student involvement in community-based activities that build awareness and responsibility toward solving veterinary and animal husbandry issues within society.
d. Develop a bachelor-level program that is adaptive, creative, and responsive to developments in veterinary science, technology, and global challenges.
e. Foster an academic environment that nurtures critical thinking, ethical awareness, environmental consciousness, and the principles of animal welfare in line with national values and global standards.

4. ORGANIZATIONAL STRUCTURE

The Faculty of Veterinary Medicine of Universitas Airlangga consists of one Departement and 9 (nine) Divissions, including:

Department of Veterinary Medicine

Head of Department : Prof. Dr. Widjiati, drh., M.Si.
Secretary : Prof. Dr. Tita Damayanti Lestari, drh., M.Sc.

I. Divission of Veterinary Anatomy
Head of Divission : Dr. Epy Muhammad Luqman, drh., M.Si.

II. Divission of Veterinary Reproduction
Head of Divission : Dr. Tri Wahyu Suprayogi, drh., M.Si.

III. Divission of Veterinary Public Health
Head of Divission : Dr. Dadik Raharjo, drh., M.Kes.

IV. Divission of Veterinary Pathology
Head of Divission : Dr. Hani Plumeriastuti, drh., M.Kes.

V. Divission of Veterinary Parasitology
Head of Divission : Prof. Dr. Poedji Hastutiek, drh., M.Si.

VI. Divission of Veterinary Basic Medical Science
Head of Divission : Dr. Rochmah Kurnijasanti, drh., M.Si.

VII. Divission of Veterinary Microbiology
Head of Divission : Dr. Wiwiek Tyasningsih, drh., M.Kes.

VIII. Divission of Animal Husbandry
Head of Divission : Dr. M. Anam Al-Arif, drh., MP.

IX. Divission of Veterinary Clinic
Head of Divission : Prof. Dr. Wiwik Misaco Yuniarti, drh., M.Kes.

5. LEARNING ACHIEVEMENTS

Table of Learning Outcomes (LO) of Bachelor of Veterinary Medicine

Attitude	LO 1	Students are devout, uphold humanity and diversity, demonstrate nationalism, care for society and the environment, obey the law, act responsibly, uphold academic ethics, and embody independence, entrepreneurship, and excellence with morality.
	LO2	Able to keep up with developments in veterinary and animal science, think critically, creatively, and systematically, and demonstrate a commitment to lifelong learning.

General Skills	LO 3	Students are able to think logically, critically, and innovatively in applying science and technology; demonstrate independent and measurable performance; produce scientific work in accordance with ethical standards; process and utilize data accurately; and take responsibility for their work while maintaining the authenticity of scientific outputs.
Specific Skills	LO 4	Demonstrate an understanding of veterinary professional ethics, including the principles behind the veterinary oath and code of conduct, and the role of ethics in veterinary practice and animal welfare.
	LO 5	Understand the structure and function of the national animal health system, including the basics of veterinary legislation and programs related to disease prevention and control of zoonotic and non-zoonotic diseases.
	LO 6	Demonstrate basic knowledge of medical procedures and the principles of diagnostic and therapeutic techniques used in veterinary practice.
	LO 7	Demonstrate skills in handling several diseases in large animals, small animals, poultry, exotic animals, wild animals, aquatic animals and laboratory animals.
	LO 8	Demonstrate the ability to assist in basic clinical, laboratory, and epidemiological procedures, including simple diagnostics, animal nutrition assessment, and pre- and post-mortem examination procedures.
	LO 9	Possess foundational skills in professional communication, including basic client interaction, informed consent principles, and the ethical aspects of communication in veterinary contexts.
	LO 10	Understand the principles of biosecurity, zoonotic disease prevention, and environmental management in relation to veterinary public health.
	LO 11	Demonstrate the ability to perform basic data collection such as anamnesis, physical observation, and simple laboratory tests; understand how diagnoses are formed; and practice recordkeeping under supervision.

	LO 12	Understand the fundamentals of risk analysis, veterinary economics, and entrepreneurship relevant to animal health and veterinary services.
	LO 13	Develop basic analytical, research, and reporting skills applicable to veterinary science and be able to contribute to scientific communication.
	LO 14	Understand the foundational concepts of veterinary service and health management systems and the role of veterinarians within them.
Knowledge	LO 15	Students are able to master concepts, theories, methods, and philosophical foundations of science systematically through learning, work experience, research, and community service; possess fundamental knowledge of veterinary science; demonstrate scientific reasoning and sound research practices; and are capable of implementing outreach or counseling programs related to livestock development and animal health.
	LO 16	Understand Human Rights and associated rights and obligations, animal welfare, bioethics in veterinary research and services, academic ethics, veterinary health law, veterinary code of ethics, code of conduct for veterinary health services, informed consent, and issues of negligence (malpractice) in veterinary care.

6. COMPETENCE OF GRADUATES

a	Manager in the veterinary and animal husbandry sector	Capable of supporting professional veterinarian and institutions through data analysis, health monitoring, and laboratory or fieldwork assistance, while adhering to scientific and ethical standards.
b	Veterinary and animal husbandry consultant	Able to contribute to the preparation and delivery of basic advisory services under supervision of professional veterinarian, based on evidence and scientific reasoning in veterinary and animal husbandry contexts.
c	Entrepreneur in the veterinary and animal husbandry sector	Demonstrates an entrepreneurial mindset by identifying opportunities and applying knowledge to support business initiatives in animal health, production, or related industries at an entry level.

d	Researcher in the field of veterinary and animal husbandry	Able to assist in conducting basic research activities and contribute to scientific inquiry and innovation in veterinary and animal husbandry fields under the guidance of senior researchers.

7. EDUCATIONAL FACILITIES

The Faculty of Veterinary Medicine of UniversitasAirlanggais located on campus "C". The facilities are equipped with adequate educational equipments, such as:

a. Classrooms
b. Laboratories (for lab work)
c. Head of Department Room
d. Lecturer Room
e. TanjungAdiwinata Meeting Room
f. Library
g. Student Activity Room / BEM Room
h. Student Computer Room
i. Administration Room
j. Wifi Area (Hall, Floor 1 to 4), Gazebo, Canteen, and Mosque

8. EDUCATION SUPPORTING FACILITIES

a. Teaching Farm facility, located in Tanjung Village, Kecamatan Kedamean, Gresik: The facility consists of buildings for housing facility, corral (goats, sheep, beef cattle, and dairy cows), frozen semen production unit, laboratory, veterinary clinic, student dormitories, offices, garages, warehouses and biogas unit. This facility is for students in bachelor's degree and professional programs (PPDH).
b. Animal Hospital of UniversitasAirlangga: an educational facility and a public service area for candidates of veterinarian or for veterinarians who are in apprenticeship.
c. Veterinary Testing and Feed Analysis Unit (UPVETAP): Virology, Microbiology and Animal Feed (KAN accredited, LP-769-IDN).
d. Animal Laboratory Cages for mice, rats and rabbits are located on the third floor of *junction* and cages for cattle, goats/ sheep and poultry are located on the first floor.
e. Molecular Biology Laboratory
f. *In vitro* Laboratory

9. EDUCATION PROGRAMS AND SYSTEMS

9.1 Education Program

Education Program is a program that contains learning experiences in theories, skills and attitudes as a whole. The bachelor's degreeprogram (S1) available in The Faculty of Veterinary Medicine of Universitas Airlangga is Bachelor Degree Program of Veterinary Medicine.

9.2 Education System

The Education Program is implemented through the Credit Unit System. Lecture and practicum provided at the Faculty of Veterinary Medicine of UniversitasAirlangga has a ratio of 60%: 40 % for S1, thus it is expected that the Bachelors will have the ability and skills to deal with the problems of certain diseases and to master the techniques in animal husbandry.

9.2.1 Explanation of One Credit Semester

The credit system is an educational system in which the student study load, lecturer burden and educational institution program implementation burden are stated in credit units. In taking the Semester Credit System, students must be under the guidance of a guardian lecturer who is tasked with providing academic advice. Semester is a unit of activity time consisting of effective learning for at least 16 weeks including midterm and final semester exams. Semester credit units, hereinafter referred to as credits, are the measurement of time for learning activities charged to students per week per semester in the learning process through various forms of learning or the amount of recognition for the success of student efforts in participating in curricular activities in a study program.

To determine of the value and work load of one-semester credit unit 1 (one) credit is as follows:

1. Learning activities such as : lectures or tutorials, consisting of :
   a. face-to-face learning (lecture) activities for 50 (fifty) minutes per week per semester;
   b. structured assignments for 60 (sixty) minutes per week per semester; and
   c. independent learning activities for 60 (sixty) minutes per week persemester.

2. Seminars or other similar forms, consisting of:
   a. Seminar work load is 100 (one hundred) minutes per week per semester; and
   b. Independent activity 70 (seventy) minutes per week per semester.
3. Practicum, studio practice, workshop practice, field practice, student exchange, apprenticeship, entrepreneurship, research, community service, and/or other similar learning processes 170 (one hundred and seventy) minutes per week per semester.
4. Study load of MBKM Program is mentioned in Airlangga Smart Education guidebook.

9.2.2 General Purposes of the Credit Unit System

a. Providing opportunities for students who are capable and active in learning to complete their studies in a relatively short time, according to their abilities and individual plans;
b. Provide opportunities for students to be able to take courses according to their talents, interests, and abilities;
c. Opening up the possibility of implementing an education system with multiple inputs and outputs;
d. Facilitate curriculum adjustment from time to time, according to developments in science and technology as well as changes in community needs;
e. Providing the possibility that the study evaluation system for student learning progress can be carried out in a more thorough and objective manner;
f. Allows credit transfers between Faculties/study programs within UNAIR; And
g. Allows transfer of students from other universities to UNAIR or vice versa.

9.2.3 Credit Value and Study Load

The value of one semester credit is determined by the overall activity load of 3 (three) types of activities per week per semester as follows:

a. Student Activities
   - Fifty (50) minutes of a scheduled face-to-face activity with a teaching staff, for example in the form of lectures;
   - Sixty (60) minutes of structured academic activity, namely unscheduled study activities but planned by teaching staff, for example in the form of homework, exercises, practical activities, other tasks outside the classroom and others of the like;
   - Sixty (60) minutes of independent activities, namely activities that must be carried out independently by students to explore, to prepare for, or otherwise to aim for an academic assignment, for example to read reference books.

b. Lecturer Activity
   - Fifty (50) minutes of a scheduled face-to-face activity with students;
   - Sixty (60) minutes of planning and evaluating structured academic activities;
   - Sixty (60) minutes of learnig-material development through reading and writing.

c. Fieldwork, Preparation of Thesis and Final Assignment Activities. The value of credit unit system for lecture activities in the form of group discussions, lab work in the laboratory, research, field work, preparation of theses, final assignments etc are determined as follows :
   - Activities of group discussions is valued as 1 (one) credit and equal to the activity load of 2 (two) hours per week for one semester;
   - Practicum activities is valued as 1 (one) credit and equal to the practical assignment in the laboratory or in the practicum room of 2 (two) hours per week for one semester;
   - Field work/practical work/ apprenticeship in industry/ company/institutions and in the like activities is valued as 1 (one) credit and equal to the activity load of 4 (four) hours per week for one semester, or equivalent to 80-90 accumulative hours in one semester;
   - For academic activities in the form of research and/ or preparation of final assignments, thesis and of the like is valued as 1 (one) credit and equal to the activity load of 3-4 hours per day per month, in which one month is equivalent to 25 working days.

9.2.4 Study Load in Semester

Student study load in 1 (one) semester is determined based on the average working time per day and individual abilities, consist of learning activities in class and outside class, approximately 8-10 (eight to ten) study hours per day or 48-60 (forty eight to sixty) hours study per week. The value of 1 (one) credit is equivalent to 3 (three) hours of work, so the student study load is generally for each semester equal to 15-24 (fifteen to twenty four) credits or around 18 (eighteen) credits per semester.

9.2.5 Assessment of Learning Outcomes

The results of the learning process are calculated as the Semester Achievement Index (IPS) and the Grade Point Average (GPA). Semester Achievement Index (IPS) is a measure of student success in taking courses in

1 (one) semester. The Grade Point Average (GPA) is a measure of student success which is calculated from the beginning of the study period to the last semester that has been attended. The amount of IPS and GPA can be calculated as follows:

$$\text{IPS} = \frac{\sum(\text{Ks x N})}{\sum \text{Ks}}$$

$$\text{GPA} = \frac{\sum(\text{Kk x N})}{\sum \text{Kk}}$$

Note :
Ks = number of credits of courses taken in the semester;
Kk = number of credits of courses taken from the beginning to the recent without grade E;
N = weight value of each course.
Based on the IPS obtained in the last semester, the learning load can be calculated in the following semester, with the conditions set by the Dean.

CHAPTER III
BACHELOR'S DEGREE PROGRAM IN VETERINARY MEDICE
FAKULTY OF VETERINARY MEDICINE
UNIVERSITAS AIRLANGGA

1. IMPLEMENTATION OF EDUCATION SYSTEM

Class Distribution

This program consists of regular class (parallel 5 classes) and English class (1 class).

Academic Year

Each teaching year is divided into 2 (two) semesters:

Odd Semester (I, III, V, VII)
From August to December
Even Semester (II, IV, VI, VIII)
From January to July

2. BACHELOR'S DEGREE

The Judiciary Meeting is held at least 1 month before the graduation ceremony. The schedule for graduation in 1 year is carried out in accordance with the academic calendar of Universitas Airlangga.

For students who have completed their thesis and the predetermined academic requirements, they will earn a **Bachelor degree of Veterinary Medicine (S.KH)** after being judged by the Dean of the Faculty of Veterinary Medicine of Universitas Airlangga.

3. TERMS OF EVALUATION OF LEARNING OUTCOMES

3.1. EXAMINATION

3.1.1. Purpose and Objectives of Examination

1. To assess the learning progress of students after the lecture is given, to evaluate whether students have understood or mastered the material presented in a course.;
2. To classify the assessment of learning outcomes, is defined by letters of A, AB, B, BC, C, D, and E.

3.1.2. Examination System and Implementation

1. New students are required to attend study program lectures of at least 75% (seventy five percent), and Joint Basic Learning (GDP) of at least 90%. All students are required to attend practicum/tutorial 100% (one hundred percent). For students who obtained D and E grades, they are allowed to take exams in one subject if they have attended the lecture process at least 75% (seventy five percent) and practicum 100% (one hundred percent);
2. Lack of attendance of a student at lectures as stated in paragraph on without a valid reason, resulting the students not being allowed to take the exam for that course;
3. The Dean may allow students who are not allowed to take the exam as referred to in paragraph two, to take the exam based on the following reasons:
    a. Illness, as evidenced by a doctor's letters;
    b. Currently carrying out curricular activities off campus, as evidenced by a statement from the Dean/Rector;

c. Currently carrying out extra-curricular activities, as evidenced by a certificate from the Dean/Rector; And
d. Have certain needs with the approval of the Dean/Rector;

4. The forms of examination are available in written test, practicum, structured assignments, quizzes and soft skills (see lecture document). Examination Details:
   a. Quiz and structured assignments are compulsory, and the frequency of implementation depends on the Semester Lecture Plan (RPS). These types of assessments are conducted before the Final Exam (UAS);
   b. The Practicum Examination is carried out base on material of the Practicum RPS;
   c. Mid-Semester Examination (UTS) is conducted according to the schedule determined by the Faculty. The materials of examination start from the beginning of the lecture to the end of the middle of the semester;
   d. Final Semester Examination (UAS) is conducted according to the schedule determined by the Faculty in the Academic Calendar. Materials in this examination comprise topic from the beginning of the lecture to the end of the semester with a composition of 25% of the materials before the Mid-Semester Examination (UTS) and 75% of the materials after the Mid-Semester Examination (UTS).
5. For students who are unable to attend the examination, report must be made by providing legitimate evidence to authority no later than one day after the examination. Exceeding the due date in providing the report, either in the Mid-Semester Examination (UTS) or in the Final Semester Examination (UAS), will result in zero (0) value and will still be counted in the calculation of the final grade;
6. The final score (grades already in the form of letters) must be announced no later than 2 weeks after the exam and submitted to the Academic Subdivision (SBAK) by the PJMK;
7. Students may improve their grades through a remedial examination during the same semester, provided that the permitted study period has not been exceeded. The final grade recorded will be the higher of the two, with the maximum attainable grade being B. Alternatively, students can improve their grades by reprogramming them in the Study Plan Card (KRS), as long as the allowed study time limit has not been exceeded. The final score used are the best grades with the highest grade of A.

3.2. SCORING SYSTEM

3.2.1. **Each evaluation provides raw score** within the scale of 0 to 100. The final grade is indicated into seven grades: A, AB, B, BC, C, D and E.

3.2.2. ***The final score*** of a course is determined by the cumulative results of the evaluation administered by the related lecturer. Here is an example of the proportions of each assessment, respectively:

A1. Course without Practicum

No	Value Component	Value Weight
1	Independent Assignment	14
2	Group Assignment	14
3	Quiz	18
4	Softskills	10
5	Mid-Semester Examination (UTS)	20
6	Final Examination (UAS)	24
	Total	100

A2. Course without Practicum

No	Value Component	Value Weight
1	Assignment	15
2	Quiz	18
3	Softskills	12
4	Mid-Semester Examination (UTS)	25
5	Final Examination (UAS)	30
	Total	100

B. Course with Practicum

No	Value Component	Value Weight
1	Practicum Test	18
2	Assignment	12
3	Quiz	16
4	Softskills	10
5	Mid-Semester Examination (UTS)	20
6	Final Examination (UAS)	24
	Total	100

Example:
X student has taken all the examination in Parasitology class, the score for each evaluation is described in the following:

Practicum Test	= 80	Softskills	= 88
Assignments	= 85	UTS	= 75
Quiz	= 87	UAS	= 80

The final score is (still in raw score)

$$\frac{(80x18) + (85x12) + (87x16) + (88x10) + (75x20) + (80x24)}{18 + 12 + 16 + 10 + 20 + 24} = \frac{8152}{100} = 81{,}52$$

Alphabetical Score is AB

3.2.3. ***Processing the Final Score:*** The raw score (in the form of number) is to be converted into Quality Scor of 7 (seven) grades. As the final score (raw score) is obtained, the mean score (X) can then be processed. The grouping of scores is done by using the ASSESSMENT REFERENCE EVALUATION (PAP), as described in the following:

Raw Score	Alphabetical Score
≥ 86	A
78 – < 86	AB
70 – < 78	B
62 – < 70	BC
54 – < 62	C
40 – < 54	D
< 40	E

3.2.4. ***Alphabetical Scores*** in the results above are then to be converted into 7 (seven) Numerical Grades, as described in the following:

Alphabetical Score	Numeric Score
A	4
AB	3,5
B	3
BC	2,5
C	2
D	1
E	0

3.3. ACHIEVEMENT ASSESSMENT

3.3.1. ***Student Learning Achievement Assessment is*** stated in Grade Point Average (GPA) or Average Quality Score (*NMR*).

3.3.2. **The Grade Point Average (GPA)** is determined by summing the multiplication of each credit by its quality value, divided by the number of credits:

$$\text{GPA or NMR} = \frac{\Sigma (Ki \times Ni)}{\Sigma Ki}$$

Ki = credits taken from each course

Ni = quality value of each course

Σ = total

To give an illustration of how the Grade Point Average (GPA or NMR) is assessed, below is a sample of calculation.

Code	Subject	Credit	Grade	Quality Score	S x Q
NOP104	Civics	2	A	4	8
NOP103	Pancasila	2	AB	3.5	7
SIP107	Data and Literature	2	BC	2,5	5
BIZ113	Basic Veterinary Anatomy	3	B	3	9
BIR102	Veterinary Embryology	2	C	2	4
Total		11			33

$$\text{GPA or NMR} = \frac{33}{11} = 3$$

3.3.3. The Predicate for Grade Point Average (GPA) are available as follows:

Indeks Prestasi (IP)	Predikat
3,51 – 4,00 (with the lowest grade of B)	With distinction (Cum laude)
3,01 – 3,50 (with the lowest grade of C)	Very satisfactory
2,76 – 3,00 (with the lowest grade of D)	Satisfactory

3.4. EVALUATION OF STUDY

The measurement of success in the study is stated in the Grade Point Average (GPA) or *NMR*. The evaluation is conducted at the end of the semester,in every academic year (note that there are at least 20 credits to be taken in the first year of the study) to the end of the bachelor's degree program (4 years), or up to a maximum of 7 (seven) years (provided that students meet each semester's evaluation).

3.4.1. Evaluation of Semester Study Result

The evaluation of the results of the semester study, which is conducted at the end of each semester, covers the courses taken by students during the semester. The results are stated by calculating the student's IPS in the semester taken. The results of this evaluation are mainly used to determine the study load (number of credits) that can be taken in the following semester, with the following conditions:

IPS	The number of credits allowed in the following semester
> 3	Maximum 24 credits
2.51 - 3.00	Maximum 20 credits
2.00 - 2.50	Maximum 18 credits
< 2	Maximum 15 credits

Note:

For students who plan an acceleration program (unavaible for those who are in the 1st and 2nd semester), the only possible courses available to take, which are beyond their semester, are those of 1 (one) year above respectively to the semester they are into (odd semester or even semester). For example, a student in Semester IV can only take courses that are being offered in Semester VI, while those in Semester III are only allowed to take courses in Semester V.

3.4.2. Result Evaluation of First Year of Study

On the first year (end of Semester II), starting from the enrollment of students to the Faculty of Veterinary Medicine of UniversitasAirlangga, the results of their study are evaluated to monitor the student's progress to see if they **are eligible to continue their study or not.** Students are allowed to proceed to the next semester if they fulfill the following requirements:

1. Having taken at least 20 credits from the available credits in the first year curriculum.
2. Achieved a Grade Point Average (GPA) of ≥ 2.00.

3.4.3. Result Evaluation of Fourth Year of Study

At the end of the fourth year, starting from the enrollment of students to the Faculty of Veterinary Medicine of UniversitasAirlangga, their results are evaluated to determine the **on-sheculed graduation and the available extensive semester(s).** Students may continue their study if they fulfill the following conditions:

1. Having taken at least 80 credits of the total lecture credits.
2. Reached a Grade Point Average (GPA) of ≥ 2.00

3.4.4. Evaluation of Study Result

Students are declared to have passed the Bachelor's degree Program of Veterinary Medicine of Universitas Airlangga if:

1. They have collected all programmed courses (150 credits);
2. They have a Grade Point Average of ≥ 2,00;
3. They have NO score of D > 20% of programmed courses;
4. They have NO score of E;
5. Have completed a thesis, other requirements set by the university and/or faculty; And
6. Has attended judiciary announcement

Students would otherwise **have to leave the study** if they do not meet the requirements mentioned above.

3.4.5. Students can complete the study earlier in the period of 3.5 years or 7 semesters provided that they have taken the specified study load (150 credits).

3.4.6. Evaluation of Study Period Limits

1. Students are given the opportunity to complete the Bachelor's degree (S1) Program of Veterinary Medicine within **8 (eight) semesters** and **a maximum of 14 (fourteen) semesters.**
2. The decision to leave the faculty is determined based on the decision letter of the Rector of UniversitasAirlangga, after receiving a proposal from the Dean of Faculty of Veterinary Medicine of Universitas Airlangga.

3.5. COMMUNITY SERVICE PROGRAM – LEARNING WITH COMMUNITY (KKN-BBM)

Students must take the Academic-Credit-System-based (SKS-based) course of Community Service Program – Learning with Community (KKN- BBM) organised by the Directorate of Education of Universitas Airlangga. Students are advised to take this program as early as semester V. If students participate in an Outbound program abroad, they are not subject to this program, according to Rector's Decree Number 4 Year 2018.

3.6. THESIS

Bachelor's Degree students of Veterinary Medicine are obliged to write a thesis as a requirement to obtain the degree, as explained in the following details:

1. Student is allowed to write a thesis after fulfilling the requirements of:
   a. Having passed all the programmed courses up to Semester VII;
   b. Having been enrolled as a student at the Faculty of Veterinary Medicine of Universitas Airlangga;
   c. Obtained a minimum ELPT score of 450 from the Language Center

of Universitas Airlangga;

2. The thesis subject is exclusively determined by the student, with the approval of the Supervisor;
3. For students who take part in other lecturer's research projects, they are required to fill out a research approval form signed by 2 (two) supervisors and by lecturers who manage the research project;
4. The title of the thesis should meet the following requirements:
   a. Scientific regulations that fulfill variables for publication;
   b. The availability of sufficient research references;
   c. The relevance to the subjects with the fields of Veterinary and/ or Animal Husbandry;
   d. The conditions specified by the Faculty of Veterinary Medicine of UniversitasAirlangga;
   e. A minimum of 40 pages with the format of quarto paper size and double space;
5. Both **Supervisor** and **Co-Supervisors must** have a rank of at least Lector (III-c) or having a minimum Master's degree, with the notions that **The Supervisor is a staff permanently registered to the Faculty and to the University and the Co-Supervisor** is appointed by the Dean and determined by the Dean Decree;
6. Thesis Writing is based on:
   a. Research conducted individually and/ or by participating in a lecturer's research that has been approved by the supervisor;
   b. Field and laboratory surveys;
7. The supervisor is fully responsible for the validity of the student's thesis or seminar;
8. The results of the thesis and/ or seminar are considered invalid if fraud/ plagiarism is found in the writing;
9. Thesis Writing or Seminar must follow the rules in the Manual of Thesis Writing published by the Faculty of Veterinary Medicine of UniversitasAirlangga;
10. Students are required to publish their thesis at least in the institution repository that is intergated in the Ministry of Research, Technology and Higher Education student final project repository portal (RAMA) or published in journals.

THESIS STAGES

To earn a Bachelor degree of Veterinary Medicine, a student must pass 3 (three) stages namely research proposal presentation, research result seminar, and thesis defense exam.

3.6.1. Proposal Penelitian

1. Research proposal presentation may be conducted by students who have passed the evaluation of their first two years of study and have been approved to get a supervisor for seminar and thesis.
2. All Examiners are appointed by the Vice Dean I. A research proposal presentation is considered valid if it is attended by at least 4 (four) staffs consisting of a minimum of 1 (one) supervisor and 3 (three) examiners or 2 (two) supervisors and 2 (two) examiners.
3. The research proposal presentation result will be the determining indicator of the research feasibility

3.6.2. Research Result Seminar

1. Research result seminar may only be conducted by the students with the following conditions:
   a. Have completed research proposal presentation;
   b. Have taken at least 142 credit hours;
   c. Have no grade E in the previous semesters
   d. Have actively attended at least 10 sessions of seminar
   e. Have revised the proposal based on the feedback given by the board of examiners which is proven by the research evaluation form.
2. The Seminar is led by a chairperson who is appointed by Vice Dean I. Research result seminar presentation is considered valid if it is attended by at least 4 (four) staffs consisting of a minimum of 1 (one) supervisor and 3 (three) examiners or 2 (two) supervisors and 2 (two) examiners. In case of the examiners are unable to reach agreement whether or not the result is eligible to pass the evaluation, the final decision will be made by the Vice Dean I.
3. The minimum passing grade for the seminar is 70 (seventy) or B. If the minimum score cannot be achieved, a repeat seminar must be held no later than 30 days after the previous seminar.

3.6.3. Thesis defense

Requirements for students to take the thesis exam must show a seminar card that has been attended 10 times, including proposal and research results seminars.

At least two weeks after doing the research result seminar, the students are mandated to do the thesis defense by proposing the application letter for a thesis defense which is addressed to the Vice Dean I of the Faculty of Veterinary Medicine, UniversitasAirlangga. Upon receiving the application letter, the Vice Dean I will form a committee as follows:

1. Five examiners are to be assigned, including 2 thesis supervisors;
2. The thesis defense is led by an examiner chairperson who is appointed by the Vice Dean I.
3. The thesis defense must be conducted simultaneously and considered valid if attended by at least 4 (four) staffs consisting of at least 1 (one) supervisor and 3 (three) examiners or 2 (two) supervisors and 2 (two) examiners;
4. The examination materials are taken from the thesis and other thesis-related materials;
5. The final grade of the thesis is solely determined by the result of the defense. The passing grade of the thesis defense is 70 or B;
6. When the passing grade is not achieved, the student will have to rearrange a thesis defense within 30 days of the initial examinaton;
7. In case of the examiners are unable to reach agreement whether or not a student is eligible to pass the examination, the final decision will be made by the Vice Dean I.

3.7. GRADING POINT AND PREDICATES

By the end of an academic year, the final evaluation of Bachelor of Veterinary Medicine will be conducted through the finalization of Grade Point Average which is elaborated in the following:

3.7.1. **The grade predicates consists of 3 levels**: satisfactory, very satisfactory, and with distinction that appear on the academic transcript;

3.7.2. **Grade Point Average** is used as the determining factor for final grading which is classified as follows:
GPA of 2.76 – 3.00 : satisfactory
GPA of 3.01 – 3.50 : very satisfactory
GPA of 3.51 – 4.00 : with distinction (Cumlaude);

3.7.3. **The predicate "with distinction"** takes the maximum length of study that is 4 years into account.

3.8. ACADEMIC LEAVE

3.8.1. An academic leave is a condition when a student is legitimately permitted by the Rector to leave academic activities for one full semester;

3.8.2. An Academic leave is granted only to students who have completed at least 4 semesters consecutively or those who suffer from severe health impairment;

3.8.3. During the course of study, the students are permitted to take academic leave for maximum 2 semesters, not in consecutively;

3.8.4. During the academic leave students must maintain their registered status;

3.8.5. The academic leave is not taken into account in the evaluation of study period.

3.9. STUDENT TRANSFER

Students from other faculties may be considered to transfer to the bachelor's degree program at the Faculty of Veterinary Medicine of Universitas Airlangga. ***Student credit transfer*** is determined by the number of credentials earned.

4. CURRICULUM & COURE SYLLABUS

4.1. THE CURRICULUM FOR BACHELOR OF VETERINARY MEDICINE STUDY PROGRAM, FACULTY VETERINARY MEDICINE, UNIVERSITAS AIRLANGGA

NO	CODE	SUBJECT	CREDIT		TOTAL	PREREQUISITE
			Lec	Lab		
SEMESTER I						
Institutional Compulsory Courses						
1.	AGI101	Islam Religion I	2	0	2	-
	AGP101	Christianity Protestant Religion I	2	0		-
	AGK101	Catholicisms Religion I	2	0		-
	AGH101	Hinduism Religion I	2	0		-
	AGB101	Budhism Religion I	2	0		-
	AGC101	Confucianism Religion I	2	0		-
2.	NOP104	Civic Education	2	0	2	-
3.	NOP103	Five Principle of Indonesia	2	0	2	-
4.	BAI101	Indonesian Language	2	0	2	-
5.	SIP107	Data and Literature	2	0	2	-
Compulsory Subjects in the Health Cluster						
6.	ETM101	Health Law Ethics	2	0	2	-
7.	KMU103	Communication & Health Service	2	0	2	-
Study Program Compulsory Courses						
8.	BIZ113	Basic Veterinary Anatomy	2	1	3	-
9.	BIR102	Veterinary Embriology	1	1	2	-
	Sub Total		**17**	**2**	**19**	-
		Off Campus				
SEMESTER II						
Institutional Compulsory Courses						
1.	PHP103	Logic and Critical Thinking	2	0	2	-
2.	MNM107	Introduction to Collaborative Science	2	0	2	-
3.	MNM106	Communication and Self-development	2	0	2	-
Study Program Compulsory Courses						
4.	BIZ114	Veterinary Topographic Anatomy	2	1	3	BIZ113
5.	BIZ116	Veterinary Histology	2	2	4	-
6.	BIZ118	Veterinary Biochemistry	3	1	4	-
7.	KHR101	Introduction of Veterinary Science	2	0	2	-
	Sub Total		**15**	**4**	**19**	
		Off Campus				

SEMESTER III						
Study Program Compulsory Courses						
1.	BIZ115	Applied Anatomy and Capita Selecta	1	1	2	BIZ114
2.	KHU105	Veterinary Physiology	3	1	4	-
3.	FAT402	Veterinary Pharmacology	2	1	3	-
4.	BIM214	Bacteriology and Mycology	2	1	3	-
5.	BIM215	Virology	1	1	2	-
6.	BIM212	Veterinary Parasitology	1	1	2	-
7.	KHR201	Ruminant and Non-Ruminant Science	1	1	2	KHR101
8.	NUV101	Animal Feed and Nutrition Science	2	0	2	-
9.	BIG101	Animal Genetic	2	0	2	-
	Sub Total		**15**	**7**	**22**	
		Off Campus				
SEMESTER IV						
Institusi Institutional Compulsory Courses						
1.	AGI403	Applied Islamic Religion	2	0	2	-
	AGP403	Applied Protestant Religion	2	0		-
	AGK403	Applied Catholicisms Religion	2	0		-
	AGH403	Applied Hinduism Religion	2	0		-
	AGB403	Applied Budhism Religion	2	0		-
	AGC403	Applied Confucianism Religion	2	0		-
Study Program Compulsory Courses						
2.	FAT403	Veterinary Toxicology and Pharmacotherapy	2	1	3	FAT402
3.	KHD206	Bacterial and Fungal Disease	2	1	3	BIM214
4.	KHD207	Viral Diseases	2	1	3	BIM215
5.	KHU103	General Veterinary Pathology	2	1	3	BIZ113
6.	KHD203	Parasitic Disease	2	1	3	BIM212
7.	KLV201	Veterinary Counseling	2	0	2	-
8.	KHT301	Animal Feed Technology	1	2	2	NUV101
	Sub Total		**15**	**7**	**22**	
		Off Campus				
SEMESTER V						
Study Program Compulsory Courses						
1.	KHD401	Veterinary Clinic Diagnosis	2	1	3	-
2.	FAF303	Veterinary Pharmaceutical Sciences	2	1	3	FAT403
3.	KHU104	Systemic Veterinary Pathology	2	1	3	KHU103
4.	KMV303	Veterinary Public Health	2	0	2	-
5.	KHU401	Veterinary Clinical Pathology	2	1	3	BIZ118, KHU105

6.	PNV301	Research methodology & Statistics	2	0	2	-
7.	BII101	Immunology	2	0	2	BIM214, BIM215, BIM212
			14	**4**	**18**	
		Off Campus				
8.	KNT401	Community Services (KKN-BBM)	-	-	**3**	
	Sub Total				**21**	
SEMESTER VI						
Study Program Compulsory Courses						
1.	KHB401	General Veterinary Surgery Science	1	1	2	-
2.	KHD313	Poultry Health Management	2	0	2	KHD206, KHD207, KHD205
3.	KMV305	Health Feed of Animal Origin	2	1	3	KMV303
4.	HKD104	Veterinary Legislation	2	0	2	-
5.	KHD312	Large Animal Internal Medicine Science	1	1	2	KHD401
6.	KHD302	Zoonoses	2	0	2	KHD206, KHD207, KHD205
7.	FIN402	Veterinary Radiology	1	1	2	KHD401
8.	KHF201	Reproductive Physiology and Technology	2	1	3	BIZ114 KHU105
Elective Courses (choose one)						
1.	MNH401	Experimental Animal Management	2	0	**2**	
2.	MNS201	Dairy Cow Health Management	2	0		
3.	MNG306	Horse, Dog, and Cat Management	2	0		
4.	KIO311	*Bioproduct, Biosafety* and *Biosecurity*	2	0		
	Sub Total		**15**	**5**	**20**	
		Off Campus				
SEMESTER VII						
Study Program Compulsory Courses						
1.	MNW201	Enterpreneurship	2	0	2	-
2.	LKM401	Environmental Health	2	0	2	-
3.	KHD304	Aquatic Animal Disease Science	1	1	2	-
4.	KHB402	Special Veterinary Surgery Science	2	1	3	KHB401
5.	KHD403	Small Animal Internal Medicine Science	2	1	3	KHD312

6.	KHO403	Veterinary Obstetrics and Infertility	2	1	3	KHF201
7.	KME418	Veterinary Economics and Epidemiology	1	1	2	-
Elective Courses (choose one)						
1.	LKM106	Wildlife	2	0	2	
2.	PKA401	Veterinary Acupuncture	2	0		
3.	KUH401	Veterinary Forensics	2	0		
4.	KHT401	Stem Cell	2	0		
		Sub Total	**14**	**5**	**19**	
		Off Campus				
SEMESTER VIII						
1.	PNH498	Seminar	-	-	3	-
2.	PNH499	Undergraduate Thesis	-	-	5	-
		Sub Jumlah			**8**	
		Jumlah Total			**150**	

The total number of credits for bachelor's degree program = 150 sks

Notes :

- Students in semesters 1 and 2 are only allowed to take the courses offered in that semester.
- Students must pay attention to the prerequisites of each course.
- Students are only allowed to take one elective course offered in odd semesters (5) and in even semesters (6).
- Specifically for IUP students in the seventh semester, it is encouraged to participate in a one-month outbound program at a university abroad.

4.2 COURSE SYLLABUS FOR VETERINARY MEDICINE BACHELOR'S DEGREE PROGRAM, FACULTY OFVETERINARY MEDICINE, UNIVERSITAS AIRLANGGA

1 RELIGION **2/0 sks**

ISLAM RELIGION I (AGI101)

This course outlines the concept of God in Islam, faith and devotion and its implementation in the modern life, the nature of human in Islam, law, the human rights and democracy from Islamic perspectives. In addition, it also discusses the Islamic law, the contribution of Indonesian Muslims, ethics, morals, science, technology and arts in Islam, interfaith harmony, civil society and wellfare, economics, culture and politics.

CATHOLICISM PROTESTANT RELIGION I (AGK101)

This course explores the nature and dimension of human beings, the concept of supreme God, Jesus Christ, moral, ethics, interfaith dialog and harmony, the communal faith, and the church community. It also teaches about science and knowledge, socio-politics, law, human rights, and democracy from Catholic perspectives and women role in the church.

CHRISTIANITY RELIGION I (AGP101)

This course focuses on Christianity as the fundamental source of values and guidance in instilling the christianity characters which upholds human dignity.

HINDUISM RELIGION I (AGH101)

This course focuses on the concept of God (*Brahma Widya*), the four pathways

to God (*CaturMarga Yoga*), Hinduism views on human nature course I and II; Ethics and morals course I and II; and science and technology from hinduism perspectives course I and II. Moreover, it also covers interfaith harmony, the physical prosperousness (*Jagadhita*), culture as the implementation of Hinduism teachings, politics from Hinduism perspective and Hinduism framework in the reinforcement of justice.

BUDDHISM RELIGION I (AGB101)
Mata kuliah ini membahas tentang Hakekat Tuhan Yang Maha Esa, didalam This course discusses the nature of God, as described in the Holy Book UDANA VII:3 : the absolute, unconditial, and unborn is Nibbana (A person who has attained holiness) Arahat. The birth of P. Sidarta, the accomplishment of perfect enlightment to become Budha; The disemmination of Dharma at Isipatana Garden. The establishment of Sangha. Prior to attaining Budha, a person must become Bodhisatva, possessing MettaKaruna and Mudta and prioritize others than one's self. The Emptiness Law manifested in 31 world dimensions. Karma as a result of a prior action.

CONFUCIANISM RELIGION I (AGC101)
This course focuses on the sufficient faith in which the Confucianism followers should be able to take responsibility and implement their faith as inclusive, sociable and civilized beings in their community.

2 CIVIC EDUCATION (NOP104) 2/0 sks
This course outlines the archipelago concept, the national defence in terms of defense and security to promote the students' spirit and awareness in safeguarding our nation.

3 FIVE PRINCIPLE OF INDONESIA (NOP103) 2/0 sks
This course discusses ways to understand the philosophy of Pancasila as the national identity of Indonesia and the country's ideology in relation with the social life.

4 INDONESIAN LANGUAGE (BAI101) 2/0 sks
This course focuses on how to write scientific papers in Indonesian languange accurately and properly.

5 DATA AND LITERATURE (SIP107) 2/0 sks
This course aims to encourage students to learn to understand how to interpret and use data properly and responsibly so the students can develop strong and coherent arguments, as well as equip them with the ability to evaluate the quality of arguments of other parties/people. In this course, students are also given the opportunity to practice organizing scientific references with the help of a reference manager application.

6 HEALTH LAW ETHICS (ETM101) 2/0 sks
This subject discusses Human Rights (HAM), as well as Rights and Obligations; Bioethics in Health Research and Services; Ethics, Academic Ethics, Health Ethics, and Law; Health Code of Ethics; Health Service Code of Ethics; Informed Consent in Health Services; Negligence in Health Services (Malpractice); Professionalism and Professional Oath.

7 COMMUNICATION AND HEALTH SERVICE (KMU103) **2/0 sks**

This course discusses topics related to the basic concepts of forming the character of health service providers who are altruistic, have a caring attitude, empathize, apply effective communication, solve evidence-based problems that prioritize ethical, practical and theoretical aspects.

8 BASIC VETERINARY ANATOMY (BIZ113) **2/1 sks**

This course focuses on basic terms of anatomy and how to understand the positions, names, shapes and structures of bones in relation with body skeleton as well as the systemic anatomy of visceral organs of domestic animals.

9 VETERINARY EMBRIOLOGY (BIP101) **1/1 sks**

This course explores the initial concept of organism development, the development of sex organ in embryonic phase, the development of male and female gametes, the developmental process of organism, the pathology of embryo and the advanced development of embryo.

10 LOGIC AND CRITICAL THINKING (PHP103) **2/0 sks**

This course provides students with a basis for critical thinking in understanding modern scientific buildings, basic scientific thinking, and ethical principles in modern science.

11 INTRODUCTION TO COLLABORATIVE SCIENCE (MNM107) **2/0 sks**

This course discusses the basic concepts of Interprofessional Education (IPE), leadership, and managerial principles, as well as principles of decision-making in problems that occur in society, especially health and social-humanities problems in several service in the community through interprofessional collaboration based on ethical principles and legal.

12 COMMUNICATION AND SELF DEVELOPMENT (MNM106) **2/0 sks**

This course provides insight and opportunities for students to be able to explore their own potential in order to develop and increase their own capacity through synergy with coaching activities in student activity units.

13 VETERINARY TOPOGRAPHIC ANATOMY (BIZ114) **2/1 sks**

This course explores the structures and functions of head and neck area, fore legs, abdomen, toraxs and rear legs in which each region is elaborated into 3 subtopics: lateral, medial and distal position.

14 VETERINARY HISTOLOGY (BIZ116) **2/2 sks**

The course features the general structure of a cell (core, cytoplasm, core degeneration, mitosis);organelles and ultrastructure;intercell substances and connective; epithelial, muscle, peripheral blood, bone marrow, cartilage, and bone tissues; the process of reinforcing peripheral nervous system and central nervous system.

15 VETERINARY BIOCHEMISTRY (BIZ118) **3/1 sks**

This course discusses the nature and mechanism of action of biocatalysts (enzymes), the process of forming energy in organisms (bioenergetics), the process of carbohydrate metabolism in monogastric and poligastric animals, the basics of molecular biology, lipid metabolism, amino acid metabolism and protein synthesis, hormones

16 INTRODUCTION TO VETERINARY SCIENCE (KHR101) **2/0 sks**

This course focuses on the relationship of human and animal, animal farming industry, animal behaviour, zootechnique and the effects of environment to animal performance.

17 APPLIED ANATOMY AND CAPITA SELECTA (BIZ115) **1/1 sks**

This course teaches students how to distinguishes and identify the shapes, structures, and the position of sensory organs which include visus, auditorius, and integument. In addition, it discusses how to identify the location, names, shapes and structures of visceral organ in poultry. It also presents how to analyse a clinical case through the anatomical approach of domestic animals (dogs, cows, and horses).

18 VETERINARY PHYSIOLOGY (KHU105) **3/1 sks**

This course outlines the fundamental knowledge on the physiologic functions of organ system. It covers the functions of organelles and biophysics, functions of autonomic nerves, central nervous system and senses, the functions of skeletal and smooth muscles and the role of alveolar ventilation and gas exchange. Furthermore, it outlines the functions of energy metabolism and thermoregulatory, the heart with its circulatory functions, absorbtion function in monogastric digestive system of poultry and ruminants, functions of hormone in pituitary, pancreas, adrenal, tyroid and paratyroid, the mechanism of electrolytereabsorbtion in kidneys and the balance system of acid and base and the functions of blood components.

19 RUMINANT & NON-RUMINANTS SCIENCE (KHR201) **1/1 sks**

Ruminant Animal Science discusses (1) Management factors for dairy and beef livestock (cattle, sheep and goats); (2) business management factors for broiler chickens, laying eggs, ducks, pigs, quails, and rabbits. Management factors include the selection of breeds for livestock, selection, health control, feed programs, housing systems, cage sanitation, and hygiene, development of human resources, and business analysis of poultry and non-ruminant livestock properly and correctly.

20 VETERINARY PHARMACOLOGY (FAT402) **2/1 sks**

The course discusses introduction to pharmacology and general pharmacology, autonomic drugs, CNS stimulants & muscle relaxants, general anesthesia, local anesthesia, sedatives-hypnotics, analgesics-antipyretics, diuretics, hormones &uterotonic, hemostatic, histamine & antihistamine.

21 BACTERIOLOGY & MYCOLOGY (BIM214) **2/1 sks**

This course discusses introductionto microbiology, basics of bacteria and fungi, Gram-positive bacteria (aerobic and anaerobic spore-forming Gram-positive rods, non-spore forming Gram-positive rods), Gram-indeterminate bacteria, Enterobacteriaceae Gram-negative rods, non-enterobacteriaceae Gram-negative rods, basics of fungi, pathogenic fungi.

22 VIROLOGY (BIM215) **1/1 sks**

The course discusses the characteristics of viruses, virus classification, virus replication, pathogenesis of viral diseases, virus seeding, virus counting, viral vaccines, virus identification and isolation.

23 VETERINARY PARASITOLOGY (BIM212) **1/1 sks**

This course discusses the classification, morphology, predilection, host, modes

of transmission and life cycle of parasites (Helminths, Protozoa, and Arthropod) in zoonotic and non-zoonotic animals (livestock, pets and wild animals).

24 ANIMAL FEED AND NUTRITION SCIENCE (NUV101) 2/0 sks

This course discusses the notions of animal feed, nutrition, animal feed formulas, feed ingredients classification & nutritional value, digestion and metabolic processes, feed substance balance, feed requirements, formulating ration using various methods for both ruminant and non-ruminant animals .

25 ANIMAL GENETICS (BIG101) 2/0 sks

Animal Genetics provides a basic understanding of the nature of individual genetic inheritance and animal populations qualitatively and quantitatively, selection system, breeding system of inbreeding and outbreeding, and animal genetic improvements.

26 RELIGION APPLIED 2/0 sks

APPLIED ISLAMIC RELIGION (AGI403)

This course presents practical Islamic materials especially in the field of veterinary medicine to equip students with skills to develop and implement the Islamic sharia appropriately. The materials cover Islamic characters, and human existence as God's creature as well as knowledge and other related skills.

APPLIED PROTESTANT RELIGION (AGP403)

This course focuses on Protestant as the fundamental source of values and guidance in instilling the Protestant characters which upholds human dignity. This course is presented based on the competency-based curriculum which includes some competencies with the contents and topics set by the Directorate General of Higher Education (Dikti).

APPLIED CATHOLICISMS RELIGION (AGK403)

This course explores the nature and dimension of human beings, the concept of supreme God, Jesus Christ, moral, ethics, interfaith dialog and harmony, the communal faith, and the church community. It also teaches about science and knowledge, socio-politics, law, human rights, and democracy from Catholic perspectives and women role in the church. These materials are taught in terms of practical implementation.

APPLIED HINDUISM RELIGION (AGH403)

This course focuses on the concept of God (*Brahma Widya*), the four pathways to God (CaturMarga Yoga), Hinduism views on human nature course I and II, Ethics and morals course I and II, and Science and Technology from Hinduism Perspectives course I and II. Moreover, it also covers interfaith harmony, the physical prosperousness (*Jagadhita*), culture as the implementation of Hinduism teachings, politics in Hinduism perspective and Hinduism framework in the reinforcement of justice.

APPLIED BUDHISM RELIGION (AGB401)

This course discusses God, as described in the Holy Book UDANA VII:3 : the absolute, unconditial, and unborn is Nibbana (A person who has attained holiness) Arahat; The birth of P. Sidarta, the accomplishment of perfect enlightment to become Budha; The disemmination of Dharma at Isipatana Garden; The establishment of Sangha. Prior to attaining Budha, a person must become Bodhisatva, possessing MettaKaruna and Mudta and prioritize others than one's self; The Emptiness Law manifested in 31 world dimensions; Karma

as a result of a prior action

APPLIED CONFUCIANISM RELIGION (AGC403)
This course focuses on the sufficient faith in a person, so that one can take responsibility as an inclusive, sociable, and civilized Confucianism follower in the community.

27 VETERINARY TOXICOLOGY AND PHARMACOTHERAPY (FAT403) **2/1 sks**
This course discusses antibiotics, antacids, antidiarrheal, anthelmintic, chemotherapy, anti-protozoa agents, antiviral drugs, anticancer drugs, introduction to toxicology, toxic plant toxicology, pesticides toxicology, heavy metalstoxicology, drugstoxicology, and toxic animaltoxicology.

28 BACTERIAL AND FUNGAL DISEASES (KHD206) **2/1 sks**
This course studies infectious diseases attacking animals or livestock,causing a large economic loss, and some of them being zoonotic. The subjects of this course include the etiology, epizootiology, pathogenesis, clinical symptoms, diagnostic methods, and control (prevention & treatment) of Anthrax, Clostridiosis, Colibacillosis, Salmonellosis, Mastitis, TBC, Malleus, Brucellosis, Leptospirosis, Pasteurellosis, Ringworm, and Aspergillosis. These subjects can be used as a reference in handling animal diseases caused by bacteria and fungi.

29 VIRAL DISEASES (KHD207) **2/1 sks**
This course discusses: 1) viral diseases in ruminants, non-ruminants and poultry, 2) transmission and pathogenesis of viral diseases in relation to treatment, prevention and disease control.

30 GENERAL VETERINARY PATHOLOGY (KHU103) **2/1 sks**
This course discusses the causes, pathogenesis, macroscopic/microscopic forms of lesions on cells/tissues, calcification and pigmentation, hemodynamic disorders, inflammatory and healing reactions, cell adaptation, growth disorders, and neoplasia, which are caused by infectious or non-infectiousagents.

31 PARASITIC DISEASE (KHD203) **2/1 sks**
This course discusses the importance of parasitic disease in animals, the harm caused, pathogenesis, clinical symptoms, diagnosis, control of diseases caused by protozoa, arthropods and helminths, as well as the importance of parasiteasvectorsin Indonesia.

32 VETERINARY COUNSELING (KLV201) **2/0 sks**
This course discusses basic knowledge of the scope and role of counseling in the development of healthy farms, and making counseling program for farmers. Subjects include: Planning, scheduling, evaluatingacounseling program, assignments, field work systems and field counseling organizations. The course also discusses Human Resource Management (HR) includes: HR framework, HR challenges, recruitment, selection, and leadership.

33 ANIMAL FEED TECHNOLOGY (KHT301) **1/2 sks**
This course discusses feed nutrition, feed nutrition testing, forage preservation

(silage &haylage), agricultural waste processing (ammoniation, alkaline hydrolysis, fermentation), wafer feed making, feedsupplement, minerals, feed preparation, forgery detection, rations homogeneity, and feed experiment.

34 VETERINARY CLINIC DIAGNOSIS (KHD401) 2/1 sks

This course discusses the anatomical and physiological analysis of large and small animals, through physical and laboratory examination, with the aim of finding physiological and pathological abnormalities in various animal organ systems.

35 VETERINARY PHARMACEUTICAL SCIENCES (FAF303) 2/1 sks

This course discusses the philosophy of medicine and medication, the Latin abbreviation and method of prescribing, drugs selection and the basis of Manual for Prime Method of Animal Drugs Manufacturing, dosage and calculation of drug dosage, selection of drug forms and uses in therapy, selection of methods and timing of drug administration, drug therapy according to the patient.

36 SYSTEMIC VETERINARY PATHOLOGY (KHU104) 2/1 sks

This course discusses the causes, pathogenesis, clinical symptoms and some forms of lesions, both macroscopically / microscopically in integumentary system, muscles and joints, respiration system, cardiovascular system, digestive system, urinary system, male and female genitaliasystems, nervous system in various types of mammals and ruminants generated by infectious and non-infectious causes.

37 VETERINARY PUBLIC HEALTH (KMV303) 2/0 sks

This course discusses the legislations of meat, slaughterhouse, slaughtering process, and carcass handling. In addition, the structure and quality of eggs are also discussed.

38 VETERINARY CLINICAL PATHOLOGY (KHU401) 2/1 sks

This course discusses the scope of veterinary clinical pathology (hematology, clinical chemistry, clinical microbiology and clinical toxicology), the process of hematopoiesis which includes blood cell function and abnormalities, hemostasis disorders, immunohepatological disorders, hematology in exotic and aquatic animals, body fluids, acid-base balance disorders, kidney and liver function disorders, microbiology and toxicology clinics interpretation of laboratory tests in animals.

39 RESEARCH METHODOLOGY AND STATISTICS (PNV301) 2/0 sks

This course discusses the Introduction, basic understanding, and basic elements of design of experiment, kinds of design models, complete random design, multiple comparisons with least significance difference, honestly significance difference, and Duncan's multiple range tests, orthogonal contrast and orthogonal polynomial, randomized block design, missing data, Latin Square Design, factorial experiment with complete random design. Factorial experiments with block designs, factorial experiments with split plot designs. basic concepts of statistics, *t* test, proportion test, sign test, Wilcoxon test, MannWhitney test, Kruskal-Wallis test, Friedman test, X2 test, regression test and Pearson correlation, and Sperman correlation

40 IMMUNOLOGY (BII101) 2/0 sks

By the end of the course, students will be able to discuss the history of immunology development, the origin of cells and types of immune systems;

organs in the immune system; antigen and antibody structures as well as antibody-antigen interactions; cellular basis and regulation of humoral immune response, cellular immune response and differentiation of immune cells; complement system; hypersensitivity reaction; MHC (Major Histocompatibility Complexes) and APC (Anytigent-Presenting Cell) in transplant immunology; immunity to infectious diseases; immunoprophylaxis and immunotherapy; factors that affect the immune response; immunodeficiency and autoimmune diseases; cancer immunology; and measurement of immune response.

41 COMMUNITY SERVICES (KKN-BBM) (KNT401) **3/0 sks**

Students are required to take part in Real Work Lectures - Learning Together with the Community (KKN-BBM), which are regulated by the Directorate of Education, Universitas Airlangga, and the assessment system is based on Semester Credit Units (sks). Students are advised to take this program starting in semester V. If students take part in the Outbound program abroad, they are exempt from the obligation to take part in KKN according to Rector's Decree Number 4 of 2018.

42 GENERAL VETERINARY SURGERY SCIENCE (KHB401) **1/1 sks**

This course discusses surgical equipments, asepsis procedures, types of anesthesia, bleeding and how to stop one, types of injuries and treatments, types of threads, needles and surgical sutures, diagnosis and types of fractures, fracture healing process, hip dislocation and hip dysplasia, types of shock and how to treat them, and fluid therapy. The courseis conducted by lecturing, discussion and video screening.

43 HEALTH FEED OF ANIMAL ORIGIN (KMV305) **2/1 sks**

This subject discusses veterinary public health and milk hygiene law, milk health, biosynthesis and the composition and characteristic of milk, dairy starter culture, milk nutrition value, microbiology and milk safety, milk processing technology, mammary health program, mastitis and Milk borne diseases.

44 VETERINARY LEGISLATION (HKD104) **2/0 sks**

The course discusses legislation, policies, protection norms, livestock utilization and development, animal health, veterinary public health, and quarantine traffic.

45 ZOONOSES (KHD302) **2/0 sks**

The course discusses the definition and classification of zoonotic diseases, humans and animals in relation to the sustainability of infectious diseases, ways of transmission to/from humans, zoonotic disease patterns, and zoonotic disease control measures.

46 VETERINARY RADIOLOGY (FIN402) **1/1 sks**

Veterinary radiology lectures are held in one semester, discusses the introduction to radiological machines usage, the dangers they pose, and radiation protection. It also discusses how to determine the exact position and layout for radiological examinations and the interpretation and conclusion of radiographic results.

47 REPRODUCTION PHYSIOLOGY AND TECHNOLOGY (KHF201) **2/1 sks**

The course is held for one semesterlongthroughface-to-face discussions and practicum sessions. Face-to-face discussions cover the history of reproduction and animals breeding, anatomy and physiology of the genitals of cattle, poultry,

dogs and cats, semen collection techniques, semen and sperm characteristics, semen processing and preservation techniques, reproductive endocrine, reproductive cycle in cattle, anatomy and physiology of mammary gland, physiology of parturition in cattle, physiology of pregnancy in cattle, artificial insemination techniques, estrus synchronization, superovulation, and embryo transfer. At the end of the course, mastery of the material is evaluated by multiple choice exams and essay.

48 POULTRY HEALTH MANAGEMENT (KHD313) 2/0 sks

The course discusses poultry management in relation to disease prevention, both diseases caused by microorganisms and diseases caused by management errors.

49 EXPERIMENTAL ANIMAL MANAGEMENT (MNH401) 2/0 sks

This lecture discusses the definition and important role of experimental animals in researches, developments and applications of science and technology, which includes types of experimental animals that can be used for research purposes as well as cultivation, understanding and implementation of ethics and animal welfare in experimental animals, how to take care of experimental animals, diseases and their handlings in experimental animals, selection of experimental animals for medical research, experimentation techniques, and understanding and implementation of biosafety in experimental animals.

50 BIOPRODUCT, BIOSAFETY AND BIOSECURITY (KIO311) 2/0 sks

This course discusses: Definition of Bioproducts, TyoesofBioproducts (Vaccines; Sera &Steamsel, Inoculants, Probiotics, Enzymes, Fermented Products), Bioproducts Production Process, Definition of Biosafety, Indonesian Biodiversity, Biodiversity Security Technology, Legislation of biological materials safety (MTA (material transfer agreement), etc.), Identification of Biological Materials as Agro-Bioterorism agents, Biosecurity at the Laboratory Level, Biosecurity at Inter-Regional Levels, Biosecurity in National Resilience Aspect.

51 DAIRY COW HEALTH MANAGEMENT (MNS201) 2/0 sks

This course discusses the history of dairy cows, anatomy and physiology of dairy cows, feed patterns, calves management, weaning calves management, heifer and lactation management, barn systems, abnormalities, prevention and diagnosis of diseases frequentlyattacking dairy cows. Course evaluation is carried out by involving soft skills, assignments, mid-term, and final semester examinations.

52 HORSE, DOG, AND CAT MANAGEMENT (MNG306) 2/0 sks

This course discusses the management system in raising horse, dogs, and cats including introduction to breeds, genetic traits and phenotypes, selection, health and disease control, feeding programs, barn systems, fur and nail care, and sanitation hygiene.

53 ENTERPRENEURSHIP (MNW201) 2/0 sks

This course discusses the characteristics of entrepreneurs, business opportunities, pricing, marketing strategies, Human ResourcesDevelopment, business negotiations, and business plan.

54 ENVIRONMENTAL HEALTH (LKM401) 2/0 sks

This course discusses various types of pollution resulted in household environment, animal husbandry, slaughterhouses, food industries, whether in

liquid, solid or gas form, methods for processing and utilizing waste,as well as sanitizers and their applications.

55 AQUATIC ANIMAL DISEASE SCIENCE (KHD304) **1/1 sks**

course discusses the importance of bacterial, fungal, viral, parasitic and micellaneous diseases in fish and aquatic mammals, losses caused pathogenesis, clinical symptoms, diagnosis and control, especially for occurence in Indonesia.

56 SPECIAL VETERINARY SURGERY SCIENCE (KHB402) **2/1 sks**

This course discusses the steps of veterinary surgical procedures in both large animals and small animals including diagnostic techniques, surgical preparation, anesthesia, surgical techniques and postoperative care. The materials are categorized based on the body systems, namely the urogenital system, digestive tract system, integument system, integumentary system and musculoskeletal system.

57 SMALL ANIMAL INTERNAL MEDICINE SCIENCE (KHD403) **2/1 sks**

The subject is given face-to-face, discussing ways of obtaining a medical history, physical and laboratory examinations, distinguishing various types of diseases, establishing diagnosis and treatment for diseases attacking internal organs in dogs and cats. Mastery of the material is evaluated by a single, multiple, and causal choice tests at the end of the course on each disease of the body system.

58 VETERINARY OBSTETRICS AND INFERTILITY (KHO403) **2/1 sks**

This course discusses the activities of the Veterinary Profession, which includes: pregnancy diagnosis, physiology and parturition induction, maternal dystocia and dystocia fetalis, Anesthesia (epidural and local) and sectio caesaria, as well as reproductive disorders and infertility in livestock, dogs, and cats, and its disadvantages, peri and postpartum pathology, and the use of hormones and antibiotics in reproductive disorders.

59 VETERINARY ECONOMICS AND EPIDEMIOLOGY (KME418) **1/1 sks**

The course discusses basic concepts of epidemiology, sampling methods, measurement system in epidemiology, descriptive epidemiology, causes of diseases, analytical epidemiology & surveys, field trial designs, system analysis & epidemiological models, veterinary economics in animal health, disease control and risk analysis.

60 WILDLIFE (LKM106) **2/0 sks**

This course discusses the life of wildlife in general with several reviews concerning conservation, behavior, management, breeding, and health management of wild animals in zoos or conservation parks.

61 VETERINARY ACUPUNCTURE (PKA401) **2/0 sks**

This course explains the philosophy of acupuncture, acupuncture technology, determining acupuncture points, acupuncture research, acupuncture equipment, and the results of acupuncture technology in field.

62 VETERINARY FORENSICS (KUH401) **2/0 sks**

This lecture discusses: 1) anamnesis and euthanasia, 2) necropsy procedure, organ examination and diagnosis of disease based on identified pathological abnormalities.

63 STEM CELL (KHT401) **2/0 sks**

The Stem Cell course discusses the main basic concepts, various basic technologies that are often used in research in the stem cell, as well as clinical and non-clinical applications of the use of stem cell technology in the fields of medicine and veterinary medicine.

64 SEMINAR (PNV498) **3/0 sks**

To apply the concept of thinking and research method in veterinary science. It is a learning experience for students to make written scientific work by applying attitudes, ways of thinking, and scientific methods in solving scientific problems through research and being able to present and defend the results openly, in writing and orally in order to complete the seminar study load to obtain a degree bachelor of veterinary medicine.

65 UNDERGRADUATE THESIS (PNH499) **5/0 sks**

Thesis writing is done based on research in accordance with the guidance book. Students to make written scientific work by applying attitudes, ways of thinking, and scientific methods in solving scientific problems through research and being able to present and defend the results closed, written and orally in order to complete the thesis study load to obtain a degree bachelor of veterinary medicine.

CHAPTER IV
CREDIT UNIT SYSTEM ADMINISTRATION

ADMINISTRATION

The application of academic administration is managed by the Academic Subdivision under the coordination of the Vice Dean I of the Faculty of Veterinary Medicine of Universitas Airlangga.

4.1. Preparation for Course Enrollment (KRS)

Preparation for course enrollment through filling in the Study Plan Card (*KRS*) is an activity carried out by students to determine the courses to be taken in the ongoing semester, and the process of filling in the *KRS* is always carried out through consultation with the academic advisor in each semester. This process is performed online through cybercampus.

4.2. *Kartu Rencana Studi* (KRS)

For students who are admitted through SNMPTN and SBMPTN, it can be implemented after the student completes registration administration and pays the Single Tuition Fee (UKT), while the MANDIRI Path pays the Initial Tuition Fee (UKA) and Semester Tuition Fees (UKS).

This requirement must be done by all students online through *cybercampus* in accordance with the Guidelines Education Bachelor.

4.3. Filling the form of Study Plan Card

At the beginning of an ongoing semester, students are required to have the Manual of Education Implementation of Faculty of Veterinary Medicine of UniversitasAirlangga, MP-IK, and Learning Form. Students are required to get instructions and suggestions from their respective Academic Advisor to discuss about the maximum credit load and courses available to be taken in the ongoing semester.

After students fill in the Study Plan Card (*KRS*) online via cybercampus and after they have the approval of the Advisor evidenced by her/ his signature on the Card (KRS), the Study Plan Card (KRS) is to be submitted to the Sub-Division of Academic of Faculty of Veterinary Medicine of UniversitasAirlangga. After the Study Plan Card (KRS) is processed, students will receive 2 (two) sheets of registered Study Plan Card (KRS), and they have to submit one sheet to the Advisor and put the other sheet into their own archive.

If students do not submit the Study Plan Card (KRS) on schedule, they are not permitted to take part in curricular activities.

Changes to the study plan can be carried out no later than one week after the lecture begins and with the approval of the Advisor. The procedure in changing the Study Plan is in accordance with the procedure for filling out the Study Plan Card (KRS).

4.4. Instructions for Revising Study Plan Card

1. A student plans the courses to be taken along with the credit load available in the ongoing semester through consultation with an Academic Advisor.
2. After being approved by the Academic Advisor, the student encloses the Study Plan Card (KRS) sheet in the provided columns/ spaces.
3. After being filled in correctly, the Study Plan Card (KRS) is to be signed by the

student and by the Advisor as an approval.

4. After being received and processed, the student receives 2 (two) sheets of registered Study Plan Card (KRS), 1 (one) sheet for the student's archive and 1 (one) sheet to be submitted to the Academic Advisor.
5. Students who plan to change the Study Plan Card (KRS) must obtain the approval of the Academic Advisor and then must report to the Academic Sub-Division of the Faculty of Veterinary Medicine of UniversitasAirlangga to fill the Revised Study Plan Card (KPRS).
6. After being filled by the student and signed by the Advisor, the Revised Study Plan Card (KPRS) is to be handed back to the Academic Sub-Division of the Faculty of Veterinary Medicine of UniversitasAirlangga. The student then receives 2 (two) sheets of registered Revised Study Plan Card (KPRS)signed by the Officer of the Academic Sub-Division, 1 (one) sheet for the student and 1 (one) sheet to be submitted to the Academic Advisor.

4.5. Examination and Exam Results

Two weeks after the final examination (UAS), a course coordinator (PJMK) for each subject must release the Final Grade through cybercampus. The listed score is a combination of the scores achieved by students through the quiz/ assignment/ practicum/ soft skill / mid-term and final examinations (see CHAPTER III Exam Evaluation). The Final Grade is then submitted to the Academic Sub-Division in accordance with the form specified. The score is then input into the Study Result Card (KHS) and is made into 4 (four) copies, each for students, Advisors, Academic Subdivision archives and student parents. The Grade Point Average is issued by Academic Sub-Division and sent to the Academic Advisors of the students.

Supplementary exams for UTS and UAS are carried out according to a predetermined schedule after UTS or UAS ends (the following week).

4.6. Student Attendance in the Lecture Process

1. The presence of a student in a lecture is archived through the Presence List for each course per semester.
2. In each taken course, students must sign on the Presence List provided.
3. If a student is unable to attend a lecture, he/she must provide a certificate of absence no later than 1 (one) week after the lecture. If the report is not provided within 1 (one) week, the absence will be taken into account at the end of the course.
4. A new student and a student who retakesacourse due to E score are allowed to take the exam of the courses if they attend at least 75% (seventy five percent) of the total meetings of the taken lecture and attend 100% (one hundred percent) of meetings of Practicum, for those who are retaking courses due to D score must attend the lectures at least 75% (seventy five percent) of the total meetings of the retaken lectures.

4.7. Academy Advisor's Responsibility

An advisor is to simplify and to ensure the delivery of education and lectures. The responsibilities of an advisor are as follows:

1. To check the requirements that students must fulfill, in order for them to be able to take part in the education program in the ongoing semester;
2. To direct and to assist students in filling out the Study Plan Card (*KRS*) and the Achievement Plan Card (*KRP*) and to give advice to students regarding available courses that may be taken in the current semester;
3. To provide advice regarding the credit load taken by students according to the students' Grade Point Average at the end of the previous semester;
4. To ensure that students of Semester I and II take all courses programmed in those

semesters;

5. To archive each of his/her assigned students' KRS, KRP, KHS, and KHP;
6. To monitor the progress of each student whom s/he is responsible for in order to prevent and to overcome any possible obstacle the students face;
7. To provide consultation for students whom s/he is responsible for, especially for those who have difficulty in completing their studies;
8. The tasks listed in this provision will be subjects of elaboration in the future. In order to carry out the aforementioned tasks properly, an Academic Advisor must:
   a. Understand the procedures in administering education and lectures according to the credit unit system;
   b. Understand the rules and obey the rules that are regulated to facilitate the implementation of education and lectures;
   c. Provide sufficient time to actively interact with students regarding their study progress study.
   d. Sign Academic Advisement Report book (buku Laporan Bimbingan Akademik) at least 3 times in each semester
9. Menandatangani buku laporan akademik (buku putih) pada tiap semester.

4.8. Rules of Lecture, Practicum and Exam

In order for the education and the lecture process to be delivered smoothly according to the objectives of education and study, Codes of Conduct must be consistently implemented, as further described in the followings:

1. General Rules of Conduct

a. Students must behave politely towards fellow students, lecturers, assistants and employees (*Academic Community*) to ensure good relationships with one another
b. Students must comply with the rules and conditions governed by their study program

2. Rules of Conduct in Lecture and Practicum

During the lecture and practicum, students are required to comply with the following conditions:

a. Be polite towards the Lecturer/Assistant.
b. Dress cleanly, neatly, politely, and properly; T-shirt is prohibited.
c. The lateness of student in lectures and in practicum is of 15 minutes at maximum.
d. Smoking in the lecture room and in interaction with the Lecturer/ Assistant is prohibited.
e. Leaving the class during the lecture and practicum (except with the permission of the relevant Lecturer/ Assistant) is prohibited.
f. Inactivating Mobile Phone (HP) during the lecture and practicum is a must .

3. Rules of Mid-term (UTS) and Final Examinations (UAS)

a. In taking the quiz/ tentamen/ structured/ practicum/ Mid-term Exam (*UTS*)/ Final Exam (*UAS*), students are required to comply with the following conditions:
   - To occupy a predetermined room and seat
   - To present a valid student card and stationery during the exam
   - To place notebook and non-active mobile phone to the designated place
   - To sign the attendance list provided
b. During the exam, it is **prohibited** for students to do the followings:
   - To talk to fellow test takers
   - To cheat with other participant(s), to request blank sheet from other participant(s)

- To open any notebook in any form
- To perform other actions that can be equated with points b and c
- To perform actions that are potentially disruptive to the examination
- To take any photographs, both of question sheet and of answer sheet.

c. All test takers must submit the question sheet and the answer sheet of the test.
d. A student who takes the exam to assist another student is considered academic misconduct, both the assistance and the assisted student will be subject to sanctions for 2 (two) semesters and all SCORES in the ongoing semester are aborted.
e. A student who cannot take the exam is required to submit a supporting document and valid reason to be put into consideration over whether or not s/he is allowed to have the follow-up exam. The exam is delivered no later than **1 WEEK** after the scheduled exam takes place.
f. Any violation committed by a student may result in him/ her be dismissed from the exam room and the exam score for the course cannot be processed.

LIST OF LECTURERS OF
FACULTY OF VETERINARY MEDICINE OF
UNIVERSITAS AIRLANGGA

NO	DEPARTMENT	NAMES
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