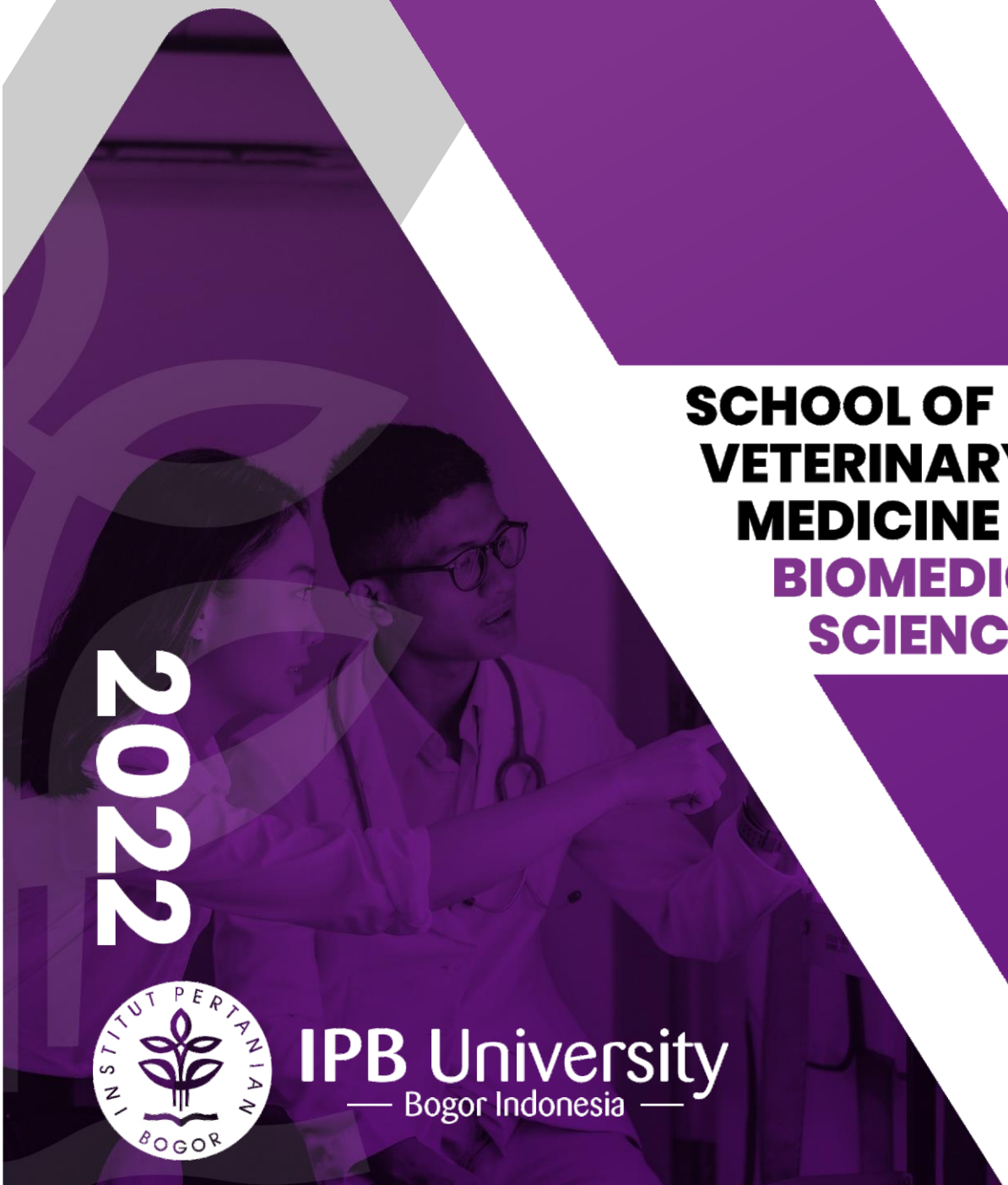
IPB University
Bogor Indonesia

Sekolah
Kedokteran Hewan
dan Biomedis

MODULE HANDBOOK



SCHOOL OF VETERINARY MEDICINE AND BIOMEDICAL SCIENCES

2022

IPB University
Bogor Indonesia

VPE Program

Veterinary Professional Education

Table of Contents

1. FKH 1501 Prescription and Drug Applications

Module designation	Veterinary Professional Program
Semester(s) in which the module is taught	1
Person responsible for the module	Dr. Rini Madyastuti Purwono, SSi, MSi, APt
Language	Indonesian
Relation to curriculum	Compulsory courses
Teaching methods	Tutorials, discussion, practicals of drug preparation, Pharmaceutical services individual task (report, presentation, literature view)
Workload (incl. contact hours, self-study hours)	Total time: 135.99 hours/semester Tutorial: 6.799 hours x 5 days = 33.995 hours/ semester Practical and Independent study: 6.799 hours x 15 days = 101.985 hours/semester
Credit points	3 x 1.8 ECTS = 5.4 ECTS
Required and recommended prerequisites for joining the module	Bachelor of Veterinary Medicine
Module objectives/intended learning outcomes	After finishing VPE, students could demonstrate several prescriptions based on animal variants (terrestrial dan aquatic) and 5 principles which are: the right preparation, the right amount of dose, the right route of administration, the right indication, and the right time.
Content	2. Composing the right prescription 3. Rational treatment of various organ systems due to infectious and non-infectious diseases in animals (terrestrial dan aquatic)
Examination forms	Attendance: 10% Quizz: 15% Final case report: 30% Paper and presentation: 15% Oral Final exam: 30%
Study and examination requirements	**Cognitive:** PBL **Psychomotor:** practice **Affective:** attendance, activeness, ability to write scientific papers, information selection and delivering information.
Reading list	Kementerian Kesehatan.1995. Farmakope Indonesia. Edisi Empat. Jakarta. 2. Kementerian Kesehatan. 2014. Farmakope Indonesia. Edisi Lima. Jakarta.

	3. Kementerian Pertanian. 2008. Farmakope Obat Hewan Indonesia, Jakarta. 4. Suharmi S, Murini T. 2009. Bentuk Sediaan Obat. Bagian Farmasi Kedokteran Fakultas Kedokteran UGM. Yogyakarta 5. Didona N. 2013. Sediaan dan Dosis Obat. Penerbit Erlangga. Jakarta. 6. Gibson M. 2009. Pharmaceutical Preformulation and Formulation, Second Edition,Informa Health Care, New York. 7. Howard C. A. 2010. Bentuk Sediaan Farmasetis dan Sistem Penghantaran Obat, Edisi sembilan, Penerbit EGC, Jakarta. 8. Voight R, 1996, Teknologi Farmasi, Edisi Kedua, Gadjah Mada Press, Yogyakarta. 9. Peraturan Pemerintah mengenai klasifikasi, registrasi, distribusi, penggunaan, dan pengawasan obat hewan. 10. Artikel publikasi ilmiah yang relevan

2. FKH 1502 Veterinary Surgery and Radiology

Module designation	Veterinary Professional Program
Semester(s) in which the module is taught	1
Person responsible for the module	Drh. Budhy Jasa Widyananta, M.Si
Language	Indonesian
Relation to curriculum	Compulsory courses
Teaching methods	Tutorials, discussion, practical (preparation of surgery, surgery and post-operative activities), individual assignment (animal examination, dan supporting laboratories, operation, reports, presentation)
Workload (incl. contact hours, self-study hours)	Total time 181.32 hours/semester Tutorial: 7.556 hours x 6 days = 45.336 hours/ semester Practical and Independent study: 7.556 hours x 18 days = 136.008 hours/semester
Credit points	4 x 1.8 ECTS = 7.2 ECTS
Required and recommended prerequisites for joining the module	Bachelor of Veterinary Medicine
Module objectives/intended learning outcomes	After completing this course, students can apply surgical and anesthetic techniques, supported by the ability to perform clinical diagnoses, imaging diagnoses, and other supporting diagnoses as well as preoperative, surgical, and post-operative care.
Content	Skills in conducting a clinical diagnosis of veterinary surgical cases, interpretation of radiographs and ultrasonography as diagnose supporting tools, anesthetic management, laboratory skill activities, management of emergency surgery actions, handling surgical cases including pre-operation, operation, and post-operation as well as writing reports, presentations, and case discussion.
Examination forms	Paper, presentation, and Discussion: 70% Animal surgical case handling: 30%
Study and examination requirements	**Cognitive:** PBL **Psychomotor:** examining the practical practice by doing hands-on and diagnosing cases and operations. **Affective:** aseptically behavior, attendance, activeness, ability to write scientific papers, information selection, and delivering information.
Reading list	1. Bright RM, et al. 2008. Handbook of Small Animal Practice 5th ed. Missouri (US): Saunders Elsevier.

2. Dunn JK. 2000. Text Book of Animal Medicine. China (CHN): Saunders.
3. Fossum TW, Hedlund CS, Hulse DA, Johnson AL, Seim III HB, Willard MD, Carroll GL. 2002. Small Animal Surgery. Ed 2nd. Missouri (US): Mosby.
4. Foster ME, Morris-Stiff G. 2001. Teknik Bedah Umum. Jakarta (ID): Farmedia.
5. Harari J. 2004. Small Animal Surgery Secrets. 2nd ed. Pennsylvania (US): Elsevier.
6. Hedlund CS, Donald AH, Ann LJ, Howard BS, Michael DW, Gwendolyn LC. 2002. 2nd ed. Small Animal Surgery. Mosby of Elsevier.
7. Hoad J. 2006. Minor Veterinary Surgery. A Handbook for Veterinary Nurses. China (CHN): Butterworth Heinemann Elsevier.
8. Johnson Al, Dunning D. 2005. Atlas of Orthopedic Surgical Procedures of The Dog and Cat. Missouri (US): Saunders Elsevier.
9. Mann FA, Constantinescu GM, Yoon HY. 2011. Fundamentals of Small Animal Surgery. New Delhi (): Blackwell Pb.
10. Piermattei D, Flo G, DeCamp C. 2006. Brinker, Piermattei, and Flo's Handbook of Small Animal Orthopedics and Fracture. 4th ed. Missouri (US): Saunders Elsevier.
11. Tobias, KM. 2010. Manual of Small Animal Soft Tissue Surgery. 1st ed. Iowa (US): Blackwell Pb.
12. McCurnin DM, Joanna MB. 2002. Clinical Textbook for Veterinary Technicians. 6th ed. Elsevier Sabre Foundation.
13. Leahy JR, Pat B. 2002. Animal Restraint. Philadelphia.
14. Busch SJ. 2006. Small Animal Surgical Nursing. Skill and Concepts. Elsevier Mosby. Inc
15. Barbara L. Christe. 2009. Introduction to Biomedical Instrumentation (The Technology of Patient Care). Indiana University Purdue University Indianapolis: Cambridge University Press.
16. Catherine et al. 2007. Animal Physiotherapy.
17. Hall LW. 1977. Wright's Veterinary Anaesthesia and Analgesia. 7th ed. Baillife Tindal.
18. Knueven D. 2008. The Holistic Health Guide.
19. Fossum TW. 2013. Small Animal Surgery. 4th ed. Missouri (US): Elsevier
20. Novakovski TD, de Vries M, Seymour C. 2016. BSAVA Manual of Canine and Feline Anaesthesia and Analgesia. 3rd ed. Quedgeley (UK): BSAVA

3. FKH 1503 Internal Medicine and Clinical Pathology

Module designation	Veterinary Professional Program
Semester(s) in which the module is taught	1
Person responsible for the module	Drh Agus Wijaya, M.Sc, Ph.D
Language	Indonesian
Relation to curriculum	Compulsory courses
Teaching methods	Tutorials, discussion, individual tasks, practicals of clinical services, (report, presentation, literature view).
Workload (incl. contact hours, self-study hours)	Total time 181.32 hours/semester Tutorial: 7.556 hours x 6 days = 45.336 hours/ semester Practical and Independent study: 7.556 hours x 18 days = 136.008 hours/semester
Credit points	4 x 1.8 ECTS = 7.2 ECTS
Required and recommended prerequisites for joining the module	Bachelor of Veterinary Medicine
Module objectives/intended learning outcomes	After completing this course, students can diagnose various animal diseases (terrestrial and aquatic) with medical treatment on animals based on clinical diagnostic practice and clinical laboratory diagnostics, emergency management, treatment management, clinical dietetics and medicine as well as medical rehabilitation.
Content	Knowledge and skills in obtaining signalment and anamnesis, physical examination and clinical diagnosis, laboratory examination, interpretation of laboratory examination results as a means of supporting diagnosis, medical records, establishing a diagnosis, differential diagnosis, and performing medical actions for various cases of organ systems due to infectious diseases and non-infectious
Examination forms	Topic exam: 20% Evaluation by supervisor: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	**Cognitive:** PBL **Psychomotor:** hands on practice and diagnosing cases **Affective:** communication skill, attendance, activeness, ability to write scientific papers, information selection and delivering information
Reading list	1. Blood DC, Radostits OM, Handerson JA. 2000.

	Veterinary Medicine 8th ed. 2. Davies C, Shell L. 2002. Common Small Animal Diagnoses. An Algorithmic Approach. Philadelphia: WB Saunders Company. Hlm. 6.9.72.75.92.93.130.133.138.141.194.199. 3. Ettinger SJ, Feldman EC.1983. Textbook of Veterinary Internal Medicine. 4th Ed. By W.B. Saunders Comp. 4. Morgan RV. 2008. Handbook of Small Animal Practice. 5th Ed. Vol.2.4. Blowey RWAD. Weaver.1991. A Colour Atlas of Disease & Disorder of Cattle. Wolfe Publishing Ltd. 5. Prince SA. Dan Wilson LMC. 2006. Pathophysiology. The Concept of Clinical Desiasen Processes. 6th Ed. Jakarta. Penerbit Buku Kedokteran EGC. 6. Stockham SL. Scott MA. 2002. Fundamentals of Veterinary Clinical Pathology State Avenue. Ames. Iowa: A Blackwell Publishing Company. 7. Susan. EA. 2000. The Merck Veterinary Manual. Published by Merck & Co. Corp. White House Station. N.J. USA.

4. FKH 1504 Reproduction and Obstetrics

Module designation	Veterinary Professional Program
Semester(s) in which the module is taught	1
Person responsible for the module	Dr. drh. Dedi Rahmat Setiadi, MSi
Language	Indonesian
Relation to curriculum	Compulsory courses
Teaching methods	Tutorials, discussion, individual tasks (Collecting semen, laboratory testing, manufacturing frozen cement, pregnancy check, rehabilitation reproduction, reports, presentation, dan exam).
Workload (incl. contact hours, self-study hours)	Total time 181.32 hours/semester Tutorial: 7.556 hours x 6 days = 45.336 hours/ semester Practical and Independent study: 7.556 hours x 18 days = 136.008 hours/semester
Credit points	4 x 1.8 ECTS = 7.2 ECTS
Required and recommended prerequisites for joining the module	Bachelor of Veterinary Medicine
Module objectives/intended learning outcomes	After completing this course, students are able to; 1) diagnose reproductive status, 2) practice breeding soundness examination and cement processing, 3) perform artificial insemination (IB) and pregnancy examination, and 4) able to explain the application of embryo transfer reproductive technology (ET) and in vitro fertilization (IVF))5) diagnose and treat reproductive disorders, 6) implementation of reproductive management
Content	1. Anatomy of the reproductive system, estrus cycle, ovarian dynamics, and pregnancy 2. Collection, evaluation, and processing of cement (liquid and frozen) 3. Semen preparation, IB technique and IB success parameters 4. Pregnancy disorders, complications of parturition, as well as anatomical, functional and reproductive infections/disorders 5. Embryo Transfer (ET) and In vitro Fertilization (IVF) technology 6. The role of nutrition and seasons, breeding management, individual and group reproductive management, and reproductive efficiency
Examination forms	Attendance: 10% Lab activity and presentation: 10% Paper and discussion: 10%

	Practical exam: 45% Final comprehensive exam: 25%
Study and examination requirements	**Cognitive:** PBL **Psychomotor:** practicum, hands on for diagnose reproduction case, artificial insemination, and semen processing **Affective:** attendance, participation, scientific writing, information selection and information delivery ability
Reading list	1. Alikodra HS. 2010. Teknik Pengabdian Satwa Liar. Bogor. IPB Press. 2. Andrew AH. 2000. The Health of Dairy Cattle. UK. Blackwell Publishing. 3. Arthur GH. Noakes DE. Pearsen H. Parkinson TJ. 1996. Veterinary Reproduction and Obstetrics. 7th Ed. London: WB Saunders Co. Ltd. 4. Cordon I. 2004. Reproductive Technologies in Farm Animals Wallingford. UK: CABI Publishing. 5. Cordon I. 1994. Laboratory Production of Cattle Embryos. Wallingford. UK: CABI Publishing. 6. Hafez ESE, Hafez B. 2000. Reproduction in Farm Anomals 7th Ed. Philadelphia. Lipponcot William & Wilkins. 7. Hardjopranjoto S. 1995. Ilmu Kemajiran pada Ternak. Surabaya: Airlangga Universitas Press. 8. Jackson PGG. 2004. Handbook of Veterinary Obstetrics. London. WB Saunders Co. Ltd. 9. Kahn WD, Volkmann, R. Kenney. 1994. Veterinary Reproductive Ultrasonography. London. UK: Times Mirros International. 10. Morrow DA. 1986. Current Theraphy in Theriogenelogy. Philadelphia: WB Saundersa Co.Ltd. 11. Noakes D. 1986. Fertility and Obstetrics in Cattle. Oxford: Blackwell Scientific Publication. 12. Parakkasi A. 1999. Ilmu Nutrisi dan MAKANAN Ternak Ruminan. Jakarta: UI Press. 13. Peters AR, Ball PJH. 1987. Reproduction in Cattle. London: Butterworths. 14. Roberts SJ. 1989. Veterinary Obstetrics and Genital Diseases. Ann Arbor. Michigan. Edwars Brother Inc. 15. Senger PL. 2003. Pathways to pregnancy and parturition. 2nd Ed. Current Conseptions. Inc. Washington. USA.

	16. Toelihere MR. 1985. Ilmu Kebidanan pada Sapi dan Kerbau. Jakarta: UI Press. 17. Toelihere MR. 1993a. Fisiologi Reproduksi pada Hewan Ternak. CV Angkasa. Bandung. 18. Toelihere mr. 1993b. Inseminasi Buatan pada Ternak. CV Angkasa. Bandung.

5. FKH 1505 Diagnostic Laboratory

Module designation	Veterinary Professional Program
Semester(s) in which the module is taught	1
Person responsible for the module	Drh Usamah Affif, MSc
Language	Indonesian
Relation to curriculum	Compulsory courses
Teaching methods	Tutorials, discussion, individual tasks of laboratory diagnostic (collecting samples, examining and reporting), final reports, presentation and exam.
Workload (incl. contact hours, self-study hours)	Total time 181.32 hours/semester Tutorial: 7.556 hours x 6 days = 45.336 hours/ semester Practical and Independent study: 7.556 hours x 18 days = 136.008 hours/semester
Credit points	4 x 1.8 ECTS = 7.2 ECTS
Required and recommended prerequisites for joining the module	Bachelor of Veterinary Medicine
Module objectives/intended learning outcomes	After completing this course, students can determine the causative agent of infectious animal diseases based on microbiological, parasitological, and immunologic laboratory examinations as well as disease control and controlling measures.
Content	Receiving, handling, storage, and examining samples from animals, reading and interpretation, determining and reporting the results of laboratory examinations (microbiology, parasitology, and immunology), proper and correct extermination of samples, as well as advice on measuring to control and animal diseases countermeasures
Examination forms	Attendance: 10% Quiz and daily discussion: 15% Final case report and exam: 50% Paper and presentation: 25%
Study and examination requirements	**Cognitive:** PBL **Psychomotor:** practical hands on lab examine of bacteria, microbes, viruses, and parasites from any samples. **Affective:** attendance, activeness, ability to write scientific papers, information selection and delivering information.
Reading list	Adam, KMG, G. Paul, V. Zaman, 1971. Medical and Veterinary protozoology. Churchil livingstone, Edinburg and London

	2. Adam, KM., GJ. Paul and V. Zaman. 1971. Medical and Veterinary, Protozoology, Edinburg. 3. Ashadi, G dan Partosoedjono. 1992. Penuntun Laboratorium Parasitologi I, PAU – IPB. 4. Bowman, DD. 2009. Georgis' Parasitology for Veterinarians (Ed 9th). Elsevier (USA). 5. Carter, G.R, M.M. Chengapa, dan A.W. Roberts. 1995. Essentials of Veterinary Microbiology. Williams & Wilkins, Baltimore, PA 6. Carter, G.R.. dan J.R. Cole. 1990. Diagnostic Procedures in Veterinary Bacteriology and Mycology. Academic Press, Inc, San Diego, CA 7. Kwon-Chung, K.J. dan J.E. Bennet. 1992. Medical Mycology. Lea and Febiger, Philadelphia. 8. Paricia M. Tille 2014 Bailey and Scott's: Diagnostic Microbiology. 13th Edition. Elsevier 9. Quinn, P.J., M.E. Carter, W.J. Donnelly, and F.C. Leonard. 2001. Veterinary Microbiology and Microbial Diseases. Oxford, UK. 10. Salyer, A.A. dan D.D. Whitt. 1994. Bacterial Pathogenesis, A Molecular Approach. Asm Press, Washington, D.C. 11. Soulsby, EJL.1986. Helminths, Arthropods and Protozoa of Domesticated Animals. Bailliere Tindall. Londonl 12. Symon LEA. 1989. Pathophisiology of Endoparasitic Infection, Compared with ectoparasitic infestation and microbial infection. Academic Press Australia. 13. Tortora, G.J. dan B. R. Funke. 2016. Microbiology, an Introduction. 12th Edition. Benjamin/Cummings Publishing Company, Inc, Menlo Park, CA.

6. FKH 1506 Diagnostic Pathology

Module designation	**Veterinary Professional Education Program**
Semester(s) in which the module is taught	2
Person responsible for the module	Drh Mawar Subangkit, MSi, PhD
Language	Indonesian
Relation to curriculum	Compulsory courses
Teaching methods	Practical of necroption, discussion interpretation of necroption result, histopathological examination, literature review, presentation dan final examination.
Workload (incl. contact hours, self-study hours)	Total time 181.32 hours/semester Tutorial: 7.556 hours x 6 days = 45.336 hours/ semester Practical and Independent study: 7.556 hours x 18 days = 136.008 hours/semester
Credit points	4 x 1.8 ECTS= 7.2 ECTS
Required and recommended prerequisites for joining the module	Bachelor of Veterinary Medicine
Module objectives/intended learning outcomes	Students can perform a necropsy and conclude a diagnosis of animal disease based on pathological anatomy and histopathology and provide advice on medical actions.
Content	Knowledge and skills of veterinary necropsy, anatomical and histopathological diagnosis, samples techniques and preparation, writing a good and correct necropsy reports.
Examination forms	Theoretical exam: 15% Necropsy exam: 50% Histopathology exam: 25% Presentation and discussion: 10%
Study and examination requirements	Cognitive: PBL Psychomotor: practices and hands on necropsy of various animals

	Affective: Forensic investigative mindset, attendance, activeness, ability to write scientific papers, selection of information and delivery of information
Reading list	Calnek BW et al. 2008. Disease of Poultry. 12th ed. Blackwell Hayat 2002. Microscopy, Immunohistochemistry, and Antigen Retrieval Methods: For Light and Electron Microscopy. Springer. Carlton WW and MD McGavin. 1995. Thomson's Special Veterinary Pathology. 2nd ed. Mosby Year Book. Jones TC, RD Hunt and NW King. 1997. Veterinary Pathology 6th ed. Williams & Wilkins King et al. 1989. The Necropsy Book. College of Veterinary Medicine, Cornell University-USA. McGavin MD, Zachary JF. 2007. Pathologic Basis of Veterinary Disease. Mosby Van Dijk JE et al. 2007. Color Atlas of Veterinary Pathology 2nd ed. Saunders Ltd

7. FKH 1507 Veterinary Public Health and Epidemiology

Module designation	Veterinary Professional Education Program
Semester(s) in which the module is taught	2
Person responsible for the module	Dr Drh Chaerul Basri, M.Epid
Language	Indonesian
Relation to curriculum	Compulsory courses
Teaching methods	Practices of risk analysis for animal disease control, surveillance of animal disease control, examination of food safety from animal products, discussion, literature review, presentation and examination
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	Bachelor of Veterinary Medicine
Module objectives/intended learning outcomes	After participating in activities at the Veterinary Public Health Laboratory, students are able to carry out, explain, and conclude about the safety and quality inspection of dairy and meat products. Students are able to check the freshness and safety of eggs, subclinical mastitis, as well as compose scientific papers and explain topics related to veterinary public health, national animal health systems, animal welfare and zoonotic diseases.
Content	Veterinary Health: Veterinary public health, national animal health system, zoonotic diseases, and animal welfare by conducting safety and quality inspections of dairy and meat products as well as egg health and safety inspections. Diagnosis of subclinical mastitis. Epidemiology: planning steps (step by step) program for controlling and eradicating animal and zoonotic diseases systematically starting from the stage of preparing the background on the importance of controlling disease, understanding the nature of disease through the preparation of survey or surveillance plans to determine disease status, preparation of disease control programs to the stage of compiling the costs and benefits of disease control.

Examination forms	Quiz and assignment: 30% Paper and presentation: 25% Oral final exam: 25% Report: 20%
Study and examination requirements	Cognitive: PBL Psychomotor: practicum, hands on lab testing of milk, eggs and meat in fresh and processed forms Affective: mindset and disease control analytics, veterinary economic considerations, attendance, activeness, ability to write scientific papers, selection of information and delivery of information.
Reading list	1. Bagian kesmavet FKH IPB 2009. Buku Bahan Ajar Mandiri Ilmu Higiene Pangan Asal Hewan. Bogor: Bagian Kesmavet, Departemen Ilmu Penyakit Hewan dan Kesmavet FKH IPB. 2. Bagian kesmavet FKH IPB 2009. Penuntun Pemeriksaan dan pengujian Higiene Pangan Asal Hewan. Bogor: Bagian Kesmavet, Departemen Ilmu Penyakit Hewan dan Kesmavet FKH IPB. 3. Jurnal buku teks dan pustaka elektronik 4. Dohoo I, Martin W. dan Stryhn H. 2003. Veterinary Epidemiologic Research. Canada: AVC Inc. 5. Martin SW, Meek AH, Willeberg P. 1988. Veterinary Epidemiology. USA: Iowa State University Press 6. Putt SNH, Shaw APM, Woods AJ, Tyler L, James AD. 1988. Veterinary Epidemiology and Economic in Africa. ILCA Manual no.3. VEERU. University of Reading, England 7. Salman MD. 2003. Animal Disease Surveillance and Survey Systems. Iowa: Iowa State Press. 8. Thrusfield M. 2005. Veterinary Epidemiology 3th ed. Berlin: Blackwell Science

8. FKH1508 Cattle Health Field Practice

Module designation	**Veterinary Professional Education Program**
Semester(s) in which the module is taught	2
Person responsible for the module	Drh Riki Siswandi, M.Si, Ph.D
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Field practices of clinical service and reproduction for dairy cattle, case discussion, presentation and examination.
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH Courses in surgery and radiology, reproduction and obstetrics, laboratory diagnostics and pathology
Module objectives/intended learning outcomes	Students will be able to diagnose and treat internal diseases, surgery, reproductive and obstetric disorders, artificial insemination, pregnancy detection and be able to analyze the relationship between feed nutrition and environmental sanitation with livestock production.
Content	Cattle Health Management as an integrated practices in the fields including surgical disease, internal medicine, reproduction, nutrition, and the environment which related with increasing milk or beef production
Examination forms	Attendance: 20% Topic discussion and exam: 40% Paper and case presentation: 40%
Study and examination requirements	Cognitive: problem-based learning (PBL) Psychomotor: practical, hands-on physical examination (examination of large animals) for surgical cases, internal and reproductive diseases, AI, PKB, activeness, ability to write scientific papers, selection of information and delivery of information
Reading List	Veterinary Medicine: A Textbook of the Diseases of Cattle, Horses, Sheep, Pigs, and Goats, 11th edition, Volumes 1 and 2. Constable PD, Hinchcliff KW, Done SH, et al. Elsevier, St. Louis, Missouri, USA. 2017. 2308 pp. ISBN: 9780-7020-5246-8.

	2. Veterinary Reproduction & Obstetrics . Editors: David Noakes, Timothy Parkinson, Gary England, eBook ISBN: 9780702072383, Hardcover ISBN: 9780702072338 3. Bovine Reproduction, 2nd Edition By Richard M. Hopper Bovine 4. Veterinary Surgery. ISSN. 01613499, 1532950X. Wiley-Blackwell

9. FKH1509 Animal Hospital Field Practice

Module designation.	**Veterinary Professional Education Program**
Semester(s) in which the module is taught	2
Person responsible for the module	Dr Drh Anita Esfandiari, MSi
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Practices of hospital management, clinical service, client communication, case discussion, presentation dan examination
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH Courses in surgery and radiology, internal medicine and clinical pathology, reproduction and obstetrics, laboratory diagnostics and pathology
Module objectives/intended learning outcomes	Students are able to establish a diagnosis, prognosis, treatment of diseases in small animals, perform emergency medical assistance, laboratory examinations and treatments
Content	Ethical, legal and systematic hospital management related to transactions, therapeutics, emergency management, outpatient, inpatient care, hospital laboratory management, treatment management, animal diet management, recording management, service management clients, as well as entrepreneurial skills in the field of animal health
Examination forms	Evaluation by Field Advisor: 20% Evaluation by Lecturer: 20% Presentation: 30% Group Report: 30%
Study and examination requirements	Cognitive: PBL Psychomotor: The practices of following hospital routines (patient admission to hospitalization), handling infectious cases, surgery and internal medicine, tumors, etc. Affective: systematic and managerial mindset, activeness, ability to write scientific papers, selection of information and delivery of information.

Reading list	Davies C, Shell L. 2002. Common Small Animal Diagnoses. An Algorithmic Approach. Philadelphia: WB Saunders Company 2. Ettinger SJ, Feldman EC. 1983. Textbook of Veterinary Internal Medicine. 4th Ed. By W.B. Saunders Comp 3. Morgan RV. 2008. Handbook of Small Animal Practice. Ed ke- 5. Vol 2.4. 4. Price SA dan Wilson LMC. 2006. Pathophysiology. The Concept of Clinical Disease Processes. Ed ke-6. Jakarta: Penerbit Buku Kedokteran EGC. 5. Stockham SL, Scott MA. 2002. Fundamentals of Veterinary Clinical Pathology. State Avenue, Ames, Iowa: A Blackwell Publishing Company. 6. Susan, E.A. 2000. The Merck Veterinary Manual. Published by Merck & Co. Corp White House Station N.J. USA

10. FKH150A Poultry Farm Field Practice

Module designation	**Veterinary Professional Education Program**
Semester(s) in which the module is taught	2
Person responsible for the module	Dr Drh Okti Nadia Poetri, MSi
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Field practices of poultry health management and production, case discussion, presentation and examination
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH Courses in laboratory diagnostics and pathology
Module objectives/intended learning outcomes	Students are able to practice poultry rearing management, poultry health management, biosecurity and biosafety management and determine poultry disease diagnosis based on anatomical pathology examination
Content	Poultry rearing management, poultry health management, biosecurity and biosafety management, diagnosis of poultry disease based on anatomical pathology examination, introduction to hatchery and feed mill
Examination forms	Final exam: 40% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: PBL Psychomotor: The practice of following the routine of poultry farming (vaccination, monitoring), necropsy when there is a case of death Affective: Mindset of poultry population health management, activeness, ability to write scientific papers, selection of information and delivery of information

Reading list	Arnall L and Keymer IF. 1975. Bird Disease. Baillierre Tindall Calnek et al. 1997. Disease of poultry. 10th Ed. Iowa University Press Jordan FTW. 1990. Poultry Diseases. 3rd Ed. The English Lab Guide Book Society and Balilliere Tindall Pusat Biosekuriti Unggas Indonesia dalam Rencana Manajemen Risiko. Pelatihan untuk Peternak Unggas. Bogor 8-9 Juli 2011 Riddell C. 1990. Avian Histopathology 2nd Ed. The American Association of Avian Pathologist SNI 1995. Pedoman Budidaya Ternak Ayam Petelur Yang Baik. Menteri Pertanian Republik Indonesia.

11. FKH150B Slaughterhouse Management & Veterinary Public Service

Module designation.	**Veterinary Professional Education Program**
Semester(s) in which the module is taught	2
Person responsible for the module	Dr. drh. Herwin Pisestyani, M.Si
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Field practices of slaughterhouse management, case discussion, presentation, and examination
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH Courses in veterinary public health and epidemiology, laboratory diagnostics, and pathology
Module objectives/intended learning outcomes	Students are able to carry out antemortem and postmortem inspections at the animal slaughterhouse, practice hygiene and sanitation, assessment of animal welfare, handling and mitigation of strategic infectious animal diseases (PHMS) and supervision of food of animal origin that is fulfil with safe, healthy, whole, halal (ASUH) criteria.
Content	Animal slaughterhouse framework, supply chain of animal origin products, service bureaucracy, flow of handling outbreaks and handling of strategic infectious animal diseases (PHMS)
Examination forms	Exam: 50% Field activity: 15% Report: 35%
Study and examination requirements	Cognitive: PBL Psychomotor: The practice of following the animal slaughterhouse and government service routines, Affective: The mindset of the veterinary authority at the location of the animal slaughterhouse and the government service, activeness, ability to write scientific papers, selection of information and delivery of information

Reading list	1. Bagian kesmavet FKH IPB 2009. Buku Bahan Ajar Mandiri Ilmu Higiene Pangan Asal Hewan. Bogor: Bagian Kesmavet, Departemen Ilmu Penyakit Hewan dan Kesmavet FKH IPB. 2. Bagian kesmavet FKH IPB 2009. Penuntun Pemeriksaan dan pengujian Higiene Pangan Asal Hewan. Bogor: Bagian Kesmavet, Departemen Ilmu Penyakit Hewan dan Kesmavet FKH IPB. 3. Jurnal buku teks dan pustaka elektronik 4. Dohoo I, Martin W. dan Stryhn H. 2003. Veterinary Epidemiologic Research. Canada: AVC Inc. 5. Martin SW, Meek AH, Willeberg P. 1988. Veterinary Epidemiology. USA: Iowa State University Press 6. Putt SNH, Shaw APM, Woods AJ, Tyler L, James AD. 1988. Veterinary Epidemiology and Economic in Africa. ILCA Manual no.3. VEERU. University of Reading, England 7. Salman MD. 2003. Animal Disease Surveillance and Survey Systems. Iowa: Iowa State Press. 8. Thrusfield M. 2005. Veterinary Epidemiology 3th ed. Berlin: Blackwell Science

12. FKH150C Horse Health Field Practice

Module designation	**Veterinary Professional Education Program**
Semester(s) in which the module is taught	3
Person responsible for the module	drh. R Harry Soehartono, M.AppSc., Ph.D.
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Field practices of horse health management, discussions, presentations and exams
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH Courses in internal medicine and clinical pathology, surgery and radiology, laboratory diagnostics and pathology
Module objectives/intended learning outcomes	Students are able to diagnose various cases related in horse diseases and management skills in horse health services, including having insight into husbandry for horses in various activities
Content	How to diagnose and prove the clinical cases on horse farms, integrated with clinical examinations and its supporting, also optional of medical therapy by consideration of environmental conditions
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: problem-based learning (PBL) Psychomotor: Practice of following the horse stable routine (daily care, cases observation, medical treatment) Affective: Practitioner mindset of large animals, especially in horses as a veterinary and managerial profession, activeness, ability to write scientific papers, selection, and deliver the information

Reading list	1. “Lameness in Horses”. O.R. Adams. Lea & Febiger; 3rd edition (1987). 2. “Adams and Stashak’s Lameness in Horse”. Baxter GM. (2011) 3. “Horse Shoeing Theory and Hoof Care”. Leslie et.al.. (1977). 4. “Veterinary Surgery”. Frank ER, Burgess Publishing Company. 5. “Biomechanics and Physical Training of the Horse”. Denoix JM, (2014). 6. “Biomechanics of Lameness in Horse”. Rooney JR (1969). 7. “Horse Sense”. Anneli Drummond-Hay (1977). 8. “Horse Massage”. Lisa Mason’s 9. “Animal Physioterapy”. Mc Gowan et.al (2007) 10. “TV-Vet BOOK”. Roger Blowey 11. “Veteinary Notes for Horse Owners”. Rossdale DR (1989) 12. “Complete Equine Veterinary Manual”. Tony Pavord dan Marcy Pavord (2009

13. FKH150D Preferred Professional Field Practice

Module designation	**Veterinary Professional Education Program**
Semester(s) in which the module is taught	3
The person responsible for the module	Dr. drh. Sus Dherti Widhyari, M.Si.
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Field practices of professional veterinarians, case discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS =3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH courses, both first and second-semester
Module objectives/intended learning outcomes	Students are able to obtain deeper understanding of basic knowledge and techniques that carried out in prospective work fields following their own passions
Content	According to their own preferred internship location
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: practice-based learning (PBL) Psychomotor: Practice of following daily routine (daily care, cases observation, medical treatment) Affective: Practitioner mindset of large animals, especially in horses as a veterinary and managerial profession, activeness, ability to write scientific papers, selection and delivery information
Reading list	1. Davies C, Shell L. 2002. Common Small Animal Diagnoses. An Algorithmic Approach. Philadelphia: WB Saunders Company. Hlm 6-9, 72-75, 92-93, 130-133, 138-141, 194-199. 2. Ettinger SJ, Feldman EC. 1983. Textbook of Veterinary Internal Medicine. 4th Ed. by W.B. Saunders Comp.

	3. Hand et al, 2000. Small Animal Clinical Nutrition, 4th Edition. Walsworth Publish Company, Marceline, Missouri. 4. Morgan RV. 2008. Handbook of Small Animal Practice. Ed ke-5. Vol 2.4. Blowey RWAD, Weaver, 1991. A Colour Atlas of Diseases & Disorders of Cattle. Wolfe Publishing Ltd.

14. FKH150F Quarantine Field Practice

Module designation	Veterinary Professional Education Program
Semester(s) in which the module is taught	3
Person responsible for the module	drh. Mokhamad Fahrudin, Ph.D
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Field practices of animal quarantine management, discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH courses, both first and second semester
Module objectives/intended learning outcomes	Explain the duties and functions of animal quarantine. Explain the administrative and services flows of animal quarantine. Explain the installation of animal quarantine and animal product. Explain the information and document system of animal quarantine. Explain the laboratory equipment of animal quarantine. Communicate animal quarantine safety to the public and stakeholders
Content	Quarantine functions, quarantine requirements, quarantine services, quarantine support facilities including animal quarantine and diagnostic laboratories
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: practice-based learning (PBL) Psychomotor: Practice of following daily routine (daily care, cases observation, medical treatment) Affective: Practitioner mindset of large animals, especially in horses as a veterinary and managerial profession, activeness, ability to write scientific papers, selection, and deliver the information

Reading list	https://jdih.bumn.go.id/baca/UU%20Nomor%2021%20Tahun%202019.pdf 2. https://peraturan.bpk.go.id/Home/Details/123687/uu-no-21-tahun-2019 3. https://karantinasby.pertanian.go.id/undang-undang-peraturan-karantina/ 4. https://www.bphn.go.id/data/documents/92uu016.doc 5. http://tanjungpriok.karantina.pertanian.go.id/ 6. https://www.woah.org/en/home/ 7. https://www.woah.org/app/uploads/2021/03/dayone-b-ang-vc.pdf

15. FKH150G Veterinary Industry Field Practice

Module designation	**Veterinary Professional Education (VPE) Programme**
Semester(s) in which the module is taught	3
Person responsible for the module	Dr. Drh. Sri Murtini, M.Si
Language	Indonesian
Relation to curriculum	Compulsory course of VPE
Teaching methods	Field practices in veterinary industry products, discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	All VPE courses semester 1 and 2
Module objectives/intended learning outcomes	Students are able to demonstrate the production technique of biomedical materials, especially vaccines and antisera along with monitoring the quality of their products and animal care for the production of antisera.
Content	Production technique of biomedical materials, especially vaccines and antisera, methods for monitoring the new products and/or old products.
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: Problem base learning (PBL) Psychomotor: practice following quarantine Affective: mindset of veterinarians in terms of animal welfare, practice of animal welfare, the ability to write scientific papers, selection and delivery of information.
Reading list	1.https://www.who.int/bloodproducts/AntivenomGLrevWHO_TRS_1004_web_Annex_5.pdf?ua=1 2.https://www.who.int/biologicals/publications/trs/areas/vaccines/polio/WHO_TRS_910_Annex2_polioinactivated.pdf 3.https://www.who.int/biologicals/publications/trs/areas/vaccines/influenza/ANNEX%203%20InfluenzaP99-134.pdf?ua=1

	4.https://www.who.int/biologicals/vaccines/Tetanus_Recommendations_TRS_980_Annex_5.pdf 5. http://perundangan.pertanian.go.id/admin/file/SK-466-99.pdf 6. https://peraturan.go.id/common/dokumen/bn/2021/bn497-2021.pdf

16. FKH150H Wildlife Health Field Practice

Module designation	**Veterinary Professional Education Programme (PPDH)**
Semester(s) in which the module is taught	3
Person responsible for the module	drh. Isdoni, M.Biomed.
Language	Indonesian
Relation to curriculum	Compulsory course of PPDH
Teaching methods	Field practices of wildlife health management, case discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	PPDH courses, both first and second semester
Module objectives/intended learning outcomes	Students are able to understand to do handling and restrain on wild animals, diagnose various cases of wildlife diseases, and having insight into conservation either in situ or ex situ
Content	In situ or ex situ conservation management, handling and restrain skill management, disease diagnosis, wildlife health services
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: practice-based learning (PBL) Psychomotor: Practice of following daily routine (daily care, cases observation, medical treatment) Affective: Practitioner mindset of wild animals as a veterinary and managerial profession, activeness, ability to write scientific papers, selection, and deliver the information
Reading list	Sonia, M.H.,H.W. Barron. E.A Miller, R.F. Aquilarand M.J. Yabsley. (Editors). 2020. Medical Management of Wildlife Species (A Guide for Practitioners). John Wiley & Sons, Inc. Hoboken, USA. 2. Miller, R. E. and M.E. Fowler. (Editors). 2015. Fowler's Zoo and Wild Animals Medicine. Vol 8. Elseviers Saunders. St. Louis, Missouri. 3. Margi S. 2020. Laboratory Procedures for Veterinary Technicians. 7

	th Edition. Elseviers Saunders. St. Louis, Missouri. 4. Devra G. K., K V. Thompson, and C. K. Baer (Editors). 2010. Wild Mammals in Captivity Principles and Techniques for Zoo Management, Second Edition. the university of chicago press • chicago and london 5. Bob A.. 2017. The Wildlife Rehabber's Handbook (an all-inclusive how-to for professionals and novices). Krittergitters Publishing Wills Point, Texas

17. FKH150I Aquatic Animal Health Field Practice

Module designation	**Veterinary Professional Education (VPE) Programme**
Semester(s) in which the module is taught	3
Person responsible for the module	Dr. Drh. Hj. Agustin Indrawati, M.Biomed
Language	Indonesian
Relation to curriculum	Compulsory course of VPE
Teaching methods	Field practices of aquatic animals health management, discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	All VPE courses semesters 1 and 2
Module objectives/intended learning outcomes	Students are able to understand how to handle and restraint on aquatic animals, diagnose various cases of aquatic animal diseases, and have skills in aquatic animal health services.
Content	handling and restraint on aquatic animals, diagnosis of aquatic animal diseases, therapy, and administration of drugs on aquatic animals, management of aquatic animal health
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: PBL Psychomotor: practice following the internship location routine Affective: build the mindset of veterinary practitioners, especially in the aquatic field as a veterinary and managerial profession, activeness, ability to write scientific papers, selection of information and delivery of information
Exposure/student	Handling and restraint of aquatic animals: 20 times Diagnosing aquatic animal diseases: 10 times

18. FKH150J Animal Laboratory Field Practice

Module designation	**Veterinary Professional Education (VPE) Programme**
Semester(s) in which the module is taught	3
Person responsible for the module	Dr Drh Aulia Andi Mustika, MSi
Language	Indonesian
Relation to curriculum	Compulsory course of VPE
Teaching methods	Field practices of animal laboratory management, discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time 90.66 hours/semester Tutorial: 4.533 hours x 5 days = 22.665 hours/ semester Practical and Independent study: 4.533 hours x 15 days = 67.995 hours/semester
Credit points	2 x 1.8 ECTS = 3.6 ECTS
Required and recommended prerequisites for joining the module	All VPE courses semester 1 and 2
Module objectives/intended learning outcomes	students are able to understand and carry out handling and restraint on laboratory animals, perform various engineering methods in the use of laboratory animals for biomedical research, skills in laboratory animal health services.
Content	handling and restraint on laboratory animals, various engineering methods on laboratory animals carried out at internship locations in the context of biomedical research, management of laboratory animal health.
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: PBL Phycomotor: practice following the internship location routine. Affective: mindset of veterinarians who will be involved in certain fields, activeness, ability to write scientific papers, selection of information and delivery of information
Exposure/student	handling and restraint on laboratory animals: 30 times engineering methods in laboratory animals: minimal 3 method
Reading list	Laboratory Animal Medicine - Handbook of Laboratory Animal Science - Handbook of Laboratory Animal Management and Welfare - Guide For The Care and Use of Laboratory - A Textbook of Veterinary Laboratory Technique

19. FKH150E Animal Welfare Field Practice

Module designation	**Veterinary Professional Education (VPE) Programme**
Semester(s) in which the module is taught	3
Person responsible for the module	Dr. Drh. Ligaya ITA Tumbelaka, M.Sc, SpMP
Language	Indonesian
Relation to curriculum	Compulsory course of VPE
Teaching methods	Field practices of animal welfare assesment, discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time: 45.33 hours/semester Presentation: 2.2665 hours x 5 days = 11.3325 hours/ semester Practical and Independent study: 2.2665 hours x 15 days = 33.9975 hours/semester
Credit points	1 x 1.8 ECTS = 1.8 ECTS
Required and recommended prerequisites for joining the module	All VPE courses semester 1 and 2
Module objectives/intended learning outcomes	Students are able to understand how to handle and restraint animals and understand about five freedoms.
Content	Animal welfare in animal hospitals, horses stable, cattle farms, poultry and laboratory animals.
Examination forms	Field exam: 20% Exam by Lecturer: 20% Group report: 30% Group presentation: 30%
Study and examination requirements	Cognitive: Problem base learning (PBL) Psychomotor: the practice of participating in the activities of Cattle Health Field Practice, Poultry Farm Field Practice, and Poultry Farm Field Practice. Affective: mindset of veterinarians in terms of animal welfare, practice of animal welfare, the ability to write scientific papers, selection and delivery of information.
Exposure/student	Animal welfare assessment on various animals according to the location of the internship.

20. FKH150K FINAL EXAM VETERINARIAN

Module designation	**Veterinary Professional Education (VPE) Programme**
Semester(s) in which the module is taught	3
Person responsible for the module	Drh. Nurhidayat M.S PhD
Language	Indonesian
Relation to curriculum	Compulsory course of VPE
Teaching methods	discussions, presentations, and exams
Workload (incl. contact hours, self-study hours)	Total time: 45.33 hours/semester Independent study: 42.83 hours/semester Exams: 2.5 hours x 1 days = 2,5 hours /semester
Credit points	1 x 1.8 ECTS = 1.8 ECTS
Required and recommended prerequisites for joining the module	All VPE courses dan National competence of Veterinary Student Exam
Module objectives/intended learning outcomes	Students are able to understand the veterinary competence dan duties as explain in Day one competence of veterinarian by WOAH
Content	All subject of ten competence of Indonesian veterinarian
Examination forms	Oral examination by board of lecture (100%)
Study and examination requirements	Cognitive: Problem base learning (PBL) of veterinarian competence
Exposure/student	Day one competence of veterinarian and 10 competence of Indonesian veterinarian.