

MODULE HANDBOOK
 Course : Veterinary Biochemistry I
 Academic Year :2017/2018

A. Course Identity

Module name	Veterinary Biochemistry I
Module level	Bachelor
Abbreviation, if applicable	KHU-1021
Sub-Heading, if applicable	-
Courses included in the module, if applicable	-
Semester/ Term	1 / First year
Coordinator	Dr. drh. ArisHaryanto, M.Si.
Lecturer(s)	Prof. Dr. drh. Wayan Tunas Artama, Dr. drh. RiniWidayanti, M.P., Dr. drh. TriniSusmiati, MP., drh. ArisPurwantoro, M.Si., drh. MedaniaPurwaningrum, M.Sc.
Language	Bahasa Indonesia
Classifications within the curriculum	Compulsory course
Teaching Format/ class hours per weeks during the semester	2 hours lecturers/week/semester during 14 weeks and 16 hours of focus group discussion (FGD) during 4 weeks/semester
Workload	2 hours lecturer, 1 hour independent work and 1 hour structural activities/week during 14 weeks, 16 hours of FGD total 72 hours/25 hours) = 2,88 ECTS
Credit points	2/0
Requirement	-
Learning goals/ competencies	CO1: students able to understand the role of basic biochemistry in veterinary medicine, chemical structure, function and configuration of monosaccharide, oligosaccharide and polysaccharide, the basic structure of carbohydrates, Fisher and Haworth formulas, classification of aldose and ketose, glycosidic bond formation and some chemical properties of carbohydrates, lipids chemical structures in general. Properties, nomenclature of fatty acid, phospholipids, sphingolipids, cerebrocides, steroids and lipids complex, chemical structures of nucleosides, nucleotides, nucleic acids (DNA and RNA), function, properties and method to isolate nucleic acid, chemical structures, properties of amino acid, peptide bond formation, protein structure, functions and protein properties, the general structure, properties and functions of vitamins and

	<p>minerals, general structure, properties, and factors that affect to the enzymes performance, enzyme kinetics, Michaelis-Menten equations and inhibition mechanism of enzyme performance, hormones and endocrine system in general, type, functions and mechanisms of hormone performance and hormone control system</p> <p>CO 2: Students able to create collaboration on inter cultural basis, multi courses, and create participatory leadership among student (to improve student soft skills: active listening, and socio-cultural awareness).</p>
Content	The course contents are: introduction and learning contract, chemical structure of carbohydrate, chemical structure of lipid, chemical structure of nucleic acid, chemical structure of amino acid and protein, enzymology, hormone and endocrinology, vitamin and mineral.
Study/ exam achievement	<p>Students are considered to be competent and pass if comply the 75% of lectures attendance and FGD requirements as stated in department and academic rules.</p> <p>Examination score: Mid Sem Exam (42,5%) + Final Sem Exam (42,5%)</p> <p>Total score : Examination score (85%) + FGD (15%)</p> <p>Final score : 100%</p> <p>Final index :</p> <p>$A \geq 80,0$</p> <p>$77,5 \leq A- < 80$</p> <p>$75 \leq A/B < 77,5$</p> <p>$72,5 \leq B+ < 75$</p> <p>$70 \leq B < 72,5$</p> <p>$67,5 \leq B- < 70$</p> <p>$65 \leq B/C < 67,5$</p> <p>$62,5 \leq C+ < 65$</p> <p>$60 \leq C < 62,5$</p> <p>$57,5 \leq C- < 60$</p> <p>$55 \leq C/D < 57,5$</p> <p>$52,5 \leq D+ < 55$</p> <p>$50 \leq D < 52,5$</p> <p>$E < 50$</p> <p>(absolute score)</p> <p>NB= if absolute score cannot be applied, the calculation with relative score will be conducted.</p>
Forms of Media	Powerpoint presentation, LCD Projector, Whiteboard, Laboratory
Literature	1. Lehninger Principles of Biochemistry, 7 th ed. . 2017. Albert L. Lehninger, Nelson, David L., Cox, Michael

	<p>2. Biochemistry, 2015. Springer Palgrave Macmillan. Berg Jeremy M., Stryer Lubert, Tymoczko, John L.</p> <p>3. Stryer Biochemistry, 2017. Springer Berlin. Berg Jeremy M., Tymoczko, John L., Gatto, Gregory J.</p> <p>4. Harper's Illustrated Biochemistry. 2015. Rodwell, Victor W.; Bender, David; Botham, Kathleen M.; Kennelly, Peter J.; Weil, P. Anthony, 30th rev. ed.</p> <p>5. Principles of Biochemistry. 4th, ed. 2013. Willey and sons. Donald Voet, Charlotte W. Pratt., Judith G Voet.</p> <p>6. Color Atlas of Biochemistry. 3rd ed. 2012. Thieme Stuttgart. Jan Koolman, Roehm Klaus-Heinrich.</p>
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B. PLO Mapping to CO

PLO	CO1	CO 2
PLO 1 : Having insight of veterinary ethic and comprehension towards the essence of profession vow and ethic code also baseline of veterinary profession;	√	
PLO 2 : Having insight in the field of national animal health system and veterinary legislation;	√	
PLO 3 : Having skills in practicing lege-artis medical treatment;	√	
PLO 11: Able to do innovation in the field of medical veterinary aligned with improvement of biotechnology and genetic engineering;	√	
PLO 14 : Well-communicate, able to cooperate in team;		√