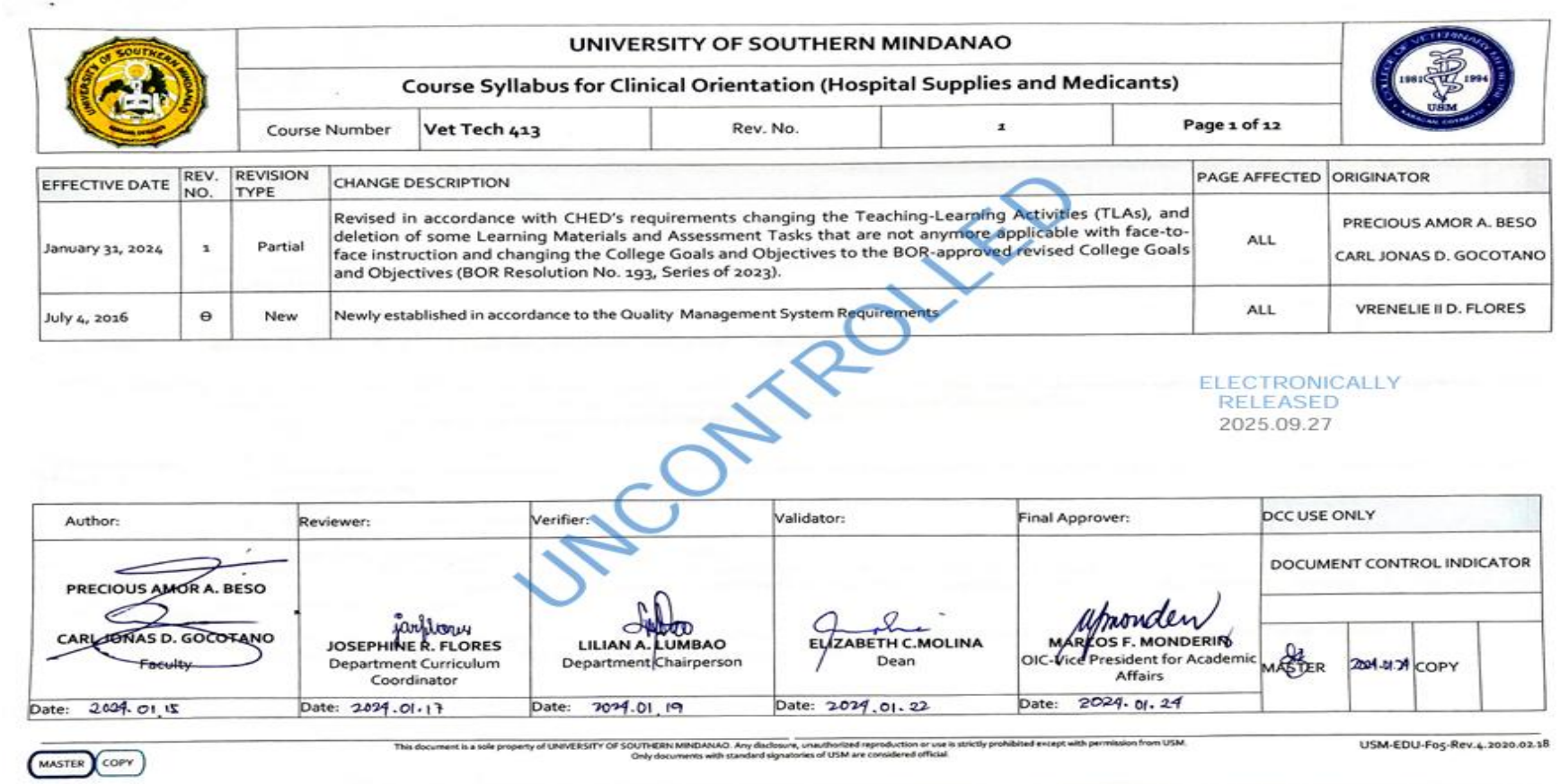
PRELIMINARY SURVEY VISIT

AREA II: FACULTY

F. PROFESSIONAL PERFORMANCE AND SCHOLARLY WORKS

F.1. UPDATED COURSE SYLLABI OF INDIVIDUAL FACULTY

Attached are sample copies of the updated course syllabi of the faculty, which further demonstrate their commitment to maintaining high academic standards and ensuring the relevance of course offerings. These syllabi reflect clearly defined learning outcomes, updated course content aligned with current industry trends, appropriate teaching and learning strategies, and well-structured assessment methods. They also highlight the integration of research-based knowledge, outcomes-based education (OBE) principles, and opportunities for lifelong learning. Overall, the submitted syllabi serve as supporting evidence of the faculty's dedication to continuous curriculum enhancement and effective instruction



UNIVERSITY OF SOUTHERN MINDANAO

Course Syllabus for Clinical Orientation (Hospital Supplies and Medicants)

Course Number	Vet Tech 413	Rev. No.	1	Page 1 of 12

EFFECTIVE DATE	REV. NO.	REVISION TYPE	CHANGE DESCRIPTION	PAGE AFFECTED	ORIGINATOR
January 31, 2024	1	Partial	Revised in accordance with CHED's requirements changing the Teaching-Learning Activities (TLAs), and deletion of some Learning Materials and Assessment Tasks that are not anymore applicable with face-to-face instruction and changing the College Goals and Objectives to the BOR-approved revised College Goals and Objectives (BOR Resolution No. 193, Series of 2023).	ALL	PRECIOUS AMOR A. BESO CARL JONAS D. GOCOTANO
July 4, 2016	0	New	Newly established in accordance to the Quality Management System Requirements	ALL	VRENELIE II D. FLORES

UNCONTROLLED

ELECTRONICALLY RELEASED
2025.09.27

Author:	Reviewer:	Verifier:	Validator:	Final Approver:	DCC USE ONLY
PRECIOUS AMOR A. BESO CARL JONAS D. GOCOTANO Faculty	JOSEPHINE R. FLORES Department Curriculum Coordinator	LILIAN A. LUMBAO Department Chairperson	ELIZABETH C.MOLINA Dean	MARCOS F. MONDERIN OIC-Vice President for Academic Affairs	DOCUMENT CONTROL INDICATOR MASTER 2024.01.24 COPY
Date: 2024.01.15	Date: 2024.01.17	Date: 2024.01.19	Date: 2024.01.22	Date: 2024.01.24	

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USM-EDU-F05-Rev.4.2020.02.18

INSTITUTIONAL POLICIES	
Vision	Quality and relevant education for its clientele to be globally competitive, culture sensitive and morally responsive human resources for sustainable development.
Mission	Help accelerate socio-economic development, promote harmony among the diverse cultures and improve quality of lifethrough instruction, research, extension and resource generation in Southern Philippines.
Core Values	**G**-Goodness, **R**-Responsiveness, **E**-Excellence, **A**-Assertion of Right and **T**-Truth
USM Quality Policy Statement	The University of Southern Mindanao, as a premier university, is committed to provide quality instruction, research development and extension services and resource generation that exceed stakeholders' expectations through the management of continual improvement efforts on the following initiatives. 1. Establish key result areas and performance indicators across all mandated functions; 2. Implement quality educational programs; 3. Guarantee competent educational service providers; 4. Spearhead need-based research outputs for commercialization, publication, patenting, and develop technologies for food security, climate change mitigation and improvement in the quality of life; 5. Facilitate transfer of technologies generated from research to the community for sustainable development; 6. Strengthen relationship with stakeholders; 7. Sustain good governance and culture, sensitivity, and 8. Comply with customer, regulatory and statutory requirements.
Goals of the College	The College aims to produce graduates possessing competence in the practice of general veterinary medicine that could assist in the treatment, control, prevention of the animal diseases. These graduates shall be also competent in the field of animals and public health. Parallel with this, the graduates are trained to be effective agents in the delivery of animal health and production technologies to farmers. The College aims to produce men and women who are sensitive to the needs of the society and to male significant contribution in the field of animal health research that will benefit the small-scale poultry livestock owners, through a meaningful and vigorous extension program.

AREA II: | FACULTY

INSTITUTIONAL POLICIES	
Department Objectives	To achieve these objectives, the students and trained: 1. To treat, prevent and control diseases; to conduct disease surveillance, and formulate animal health management programs; 2. To perform functions related to public health, promotion of animal rights and welfare and learn advancement of animal production and preservation of wildlife; 3. Not only to become competent veterinarians and veterinary technologists but also to enable them to acquire proficiency in communication skills and become familiar with the basic principles in social and natural sciences; 4. To exhibit altruism, integrity, honesty, responsibility, and compassion in the delivery of veterinary services: 5. To be culturally sensitive; and 6. To demonstrate knowledge and understanding of the concepts of "One Health" in the practice of the veterinary profession.

PROGRAM INFORMATION					
Degree Program	**BACHELOR OF SCIENCE IN VETERINARY TECHNOLOGY**	CHED CMO Reference	**No. 1 Series 2018**	BOR Approval	

COURSE DETAILS					
Course Title	Clinical Orientation (Hospital Supplies and Medicants)				
Course Number	Vet Tech 413		Curriculum Component	**Veterinary Technology**	
Credit (--Unit)	**3**	LECTURE (Unit-Hours)	**3-1**	LABORATORY (Unit-Hours)	**3-6**
Prerequisites	**Completed all 3rd year subjects**	Co-requisites	**None**	Year Level/Semester Offered	**4thyear / 1st semester**
Course Description	Clinical applications of laboratory test (urinalysis, hematology, and cytology) to be employed in a clinical settings and which will be discussed and performed in aid of diagnosis. This course will provide students with hands-on experience with various animal species under hospital setting.				
Faculty in charge	*(Must not be filled up in the master copy)*				
Consultation Hours	*(Must not be filled up in the master copy)*		Contact Information	cjgocotano@usm.edu.ph	

AREA II: | FACULTY

PROGRAM EDUCATIONAL OBJECTIVES (PEO) Upon graduation, the University of Southern Mindanao **BS Vet Tech** students must be able to:		**MISSION**		
		M1	***M2***	***M3***
PEO 1	Provide leadership in various development programs both public and private	√		
PEO 2	Equip with technical, conceptual and human resource skills	√		ü
PEO 3	Pursue entrepreneurial activities	√		ü
PEO 4	Able to adapt to diverse culture		√	
PEO 5	Pursue advanced studies in emerging related fields		√	ü

NOTE: The PEO's are based on the professional, industry, local, national and international needs and requirements of the program identified through consultation with constituents and stakeholders.

PROGRAM OUTCOMES (PO) Upon graduation, the University of Southern Mindanao **BS Vet Tech** students must be able to:	**PEO1**	**PEO2**	**PEO3**	**PEO4**	**PEO5**	**PEO6**	**PEO7**	**PEO8**	**PEO9**	**PEO10**	...
a) Articulate and discuss the latest development in the specific field of practice.		√									
b) Effectively communicate orally and in writing using both English and Filipino		√			√						
c) Work effectively and independently in multidisciplinary and multi-cultural teams.			√	√							
d) Act in recognition of professional, social and ethical responsibility	√										
e) Preserve and promote "Filipino historical and cultural heritage"					√						
f) Participate in the generation of new knowledge in research and development projects.		√	√								
g) Generate and share knowledge as it applies to specific problems in the discipline	√	√	√	√							
h) Formulate sustainable and productive agricultural development plans and programs	√		√	√	√						
i) Understand and apply biological principles and mechanisms underlying animal production, health and diseases	√			√	√						
j) Apply diagnostic methods and interpret results for accurate disease diagnosis	√	√	√	√	√						
k) Prescribe and implement treatment to remedy diseases and abnormalities of animals or prescribe termination of cases, as necessary	√			√	√						
l) Develop and formulate plans and programs for prevention and control of diseases				√							

NOTE: Minimum PO's shall come from the PSG/CMO of the program if applicable. Other additional PO's may come from consultations with constituents and stakeholders.

AREA II: | FACULTY

UNIVERSITY OF SOUTHERN MINDANAO						
Course Number	**Vet Tech 413**	Course Title	Clinical Orientation(Hospital Supplies and Medicants)	Rev. No.	1	Page5of12

COURSE OUTCOMES (CO)		POa	POb	POc	POd	POe	POf	POg	POh	POi	POj	POk	POl	POm	POn	POo	POp	POq	POr	POs	POt	POu	POv	POw	POx	POy	POz
Upon passing this course, the students must be able to:	**Course Alignment to Program Outcomes**																										
CO 1	Understand the principles of clinical applications of laboratory tests for aid in diagnosis and treatment.	I	E							I																	
CO 2	Conduct laboratory tests (urinalysis, hematology, and cytology).	I	E							I																	
CO 3	Understand and follow steps by step procedures of the laboratory tests foe reading of results in aid of diagnosis and treatment of animals.	I	E							I																	

**Level*(follow the legend used in the most relevant PSG/CMO)*

[I]Introductory. This introduces the student to the Program Outcome (PO)

[E] Enablng. This enables the students to attain the Program outcome (PO)

[D]Demonstrative. This demonstrates the student's attainment of the Program Outcome (PO)

COURSE LEARNING PLAN								
Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame *(Wee)*	Course Content *(Topics)*	Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
1. Describe the policies, lecture and laboratory classes including the computation of their grades. 2. Describe the coverage of the course and the requirements. 3. Discuss the vision and mission of the USM and the goal of CVM related to		1	**Class Orientation** 1. Policies/Rules And Regulation in The Lecture Class/Laboratory 2. Computation Of Grades/Grading System 3. Requirements in The Lecture And Laboratory Classes 4. Vision, Mission, Goals	*Orientation through face to face mode*	Review of VMGO; UQPS; GREAT USM Understnding the policies, rules and regulations in the class	Computer; internet connection; VMGO of USM; Goals and objectives of CVM; Course syllabus	Recitation	USM VMGO https://www.usm.edu.ph/about-usm/mandates-vision-mission/

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame *(Wee)*	Course Content *(Topics)*	Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
objectives of CVM 4. Enumerate the quality policy statement of the university			And Objectives of USM and CVM 5. GREAT USM 6. Coverage of The Course/s 7. Quality Policy Statement					
1. Describe, compare and evaluate the various collection methods of urine samples. 2. Describe the various procedures for evaluation of urine. 3. Explain the various components of the test results as they relate to the normal physiological and pathophysiological patient. 4. Identify the limit of pre-analytical patient variables and care influences, and specimen collection, handling and timing influences that affect and results.	**CO1** **CO2** **CO3**	**2 - 3**	**I. Urinalysis** a. Specimen collection and handling b. Chemical components c. Microscopic evaluation d. Uroliths	*Lecture discussion; PPT discussion; Inter-active discussion*		Learning module; Laboratory manual	Short quiz	[1] pp. 57-70
1. Describe, compare and evaluate the various	**CO1**	**4- 6**	**II. Hematology** **a.** Blood collection and sampling	*Synchronous /Onsite Synthesizing Activities*	Onsite facilitated group activities	Business Machine, Laboratory manual; Messenger	Short quiz	[1] pp. 17-55 [3] pp. 19-58

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame *(Wee)*	Course Content *(Topics)*	Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
collection methods of blood samples. 2. Describe the various procedures for evaluation of blood. 3. Explain the various components of the test results as they relate to the normal physiological and pathophysiological patient. 4. Identify the limit of pre-analytical patient variables and care influences, and specimen collection, handling and timing influences that affect and results.	CO2 CO3		b. Erythrocyte evaluative c. Leukocyte evaluative d. Thrombocyte evaluation		Completion of Assessment task			
1. Describe the variety of collection and processing techniques for cytology samples. 2. Identify common normal cells found in cytology samples. 3. Identify common abnormal cells found in cytology samples.	CO1 CO2 CO3	7 - 8	**III. Cytology** **a.** Indications b. Specimen collection c. Concentration techniques d. Characteristics of fluid samples e. Slide preparation	*Synchronous /Onsite Synthesizing Activities*	Onsite facilitated group activities Completion of Assessment task	Business Machine, Laboratory manual; Messenger	Short quiz	[1] pp. 121-155 [2] pp. 386-389
ALL ILOs covered in Midterm		9	**MIDTERM EXAMINATION**					

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame *(Wee)*	Course Content *(Topics)*	Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
1.Identify key proteins and cellular components involved in hemostasis. 2.Estimate the platelet count in a peripheral blood sample. 3. calculate plasma fibrinogen concentration. 4. measure buccal mucosal bleeding time. 5. determine activated clotting time 6. discuss blood collection and storage methods for analysis of fibrinolysis. 7. Discuss blood collection and storage methods for analysis of coagulation pathways. 8. Discuss blood collection and storage methods for specialize platelet function tests.	**CO1** **CO2** **CO3**	**10 - 12**	**IV. Hemostasis** a. introduction b.Physiology c. Diagnostic testing Blood collection Platelet count Buccal mucosal Clot retraction Platelet aggregation Activated clotting time Activated partial Thromboplastin time Prothrombin time FDP's D-dimers Anthrombin III (ATIII) Thromboelastography	*Synchronous /Onsite Synthesizing Activities*	Onsite facilitated group activities Completion of Assessment task	Business Machine, Laboratory manual; Messenger	Short quiz	[1] pp. 17-18; 37-39; 43-45 [2] pp. 72-91
1.Describe the technique used to prepare a stained blood smear, list actors that influence smear quality , and discuss the valuation process.	**CO1** **CO2** **CO3**	**13 - 14**	**IV. Staining Techniques** Romanowsky Stain (Wright's and Diff- quick) Methylene blue stain	*Synchronous /Onsite Synthesizing Activities*	Onsite facilitated group activities Completion of Assessment task	Business Machine, Laboratory manual; Messenger	Short quiz	[1] pp. 22-23

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame *(Wee)*	Course Content *(Topics)*	Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
1. Differentiate between active and passive immunity, and discuss why it is necessary to administer a series of vaccinations to young puupies and kittens. 2. Differentiate between nonifectiouus and infectious types of vaccines and eplain the purpose of adjuants. 3. Descrbe a routine preventive health program for horses, including physical eamination , vaccinations, prevention of parasitic infcetions, dental and hoof car,and nutrtion. 4. Describe vaccines and other preventive measures that can be used during various life stages of pigs, cattle, sheep, and goats.	CO1 CO2	15	**Preventive Health Programs** Preventive Health Programs for dogs and cats Preventive Health Programs for horses Preventive Health Programs for goats and sheep	*Synchronous /Onsite Synthesizing Activities*	Onsite facilitated group activities Completion of Assessment task	Business Machine, Laboratory manual; Messenger	Short quiz	[2] pp. 243-273
1. List considerations for having an in-clinic laboratory and for using a reference laboratory.	CO1 CO3	16-17	**Minimizing Laboratory Errors in Veterinary Practice** A. Laboratory considerations	*Synchronous /Onsite Synthesizing Activities*	Onsite facilitated group activities Completion of Assessment task	Business Machine, Laboratory manual; Messenger	Short quiz	[3] pp. 227-242

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame *(Wee)*	Course Content *(Topics)*	Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
2. Explain the different types of laboratory error and give examples of each.			B. Laboratory area C. Types of Laboratory error D. Minimizing Laboratory error					
All ILOs covered in the Course		**18**	**FINAL EXAMINATION**					

** any interaction, course, program, or other experience in which learning takes place (https://www.edglossary.org/learning-experience/).*

Textbook/References

[1] Bellwood, B.,and Catton, M.A (2014). *Veterinary Technician's Handbook of Laboratory Procedures*. John Wiley & Sons.

[2] Bassert, J.M., Beal, A.D., and Samples, O.M. (2018). McCurnin's Veterinary Clinical Textbook for Veterinary Technician. 9th edition. Elsevier , Inc.

[3] Barger, A.M., and MacNeil, A.L. (2015). Clinical Pathology and Laboratory Techniques for Veterinary Technician. Willey Blackwell

[4] USM Policy

Life-long Learning Opportunity

AREA II: | FACULTY

Course Evaluation Course Outcomes (CO)	Assessment Task Addressing CO	Weight (%)	Satisfactory Rating	Target Standard
CO_1:Discuss the general principles in veterinary clinical procedures in large animals;	Written Exam Requirement	15 5	50%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_2:Describe the basic methods in restraining large animal species safely and effectively;	Written Exam Requirement	15 5	50%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_3:Describe the role of the veterinary technician in taking a patient history and physical examination;	Written Exam Requirement	15 5	50%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_4:List and describe the equipment and techniques required to perform common sample collections, drug administration; and	Written Exam Requirement	15 5	50%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_5:Discuss the different identification techniques used in large animals.	Written Exam Requirement	15 5	50%	60% of the class obtained a rating of at least 4 and/or a score of 50

Grading System

1. The University grading system shall be adopted, where the term grade shall constitute 40% of the grade for quizzes and long examinations and 60% for the term examination.
2. The term grade shall constitute 60% of the lecture grade and 40% laboratory grade.
3. The final grade shall constitute 50% of the mid-term grade and 50% of the final term grade.
4. Passing percentage in any examination is 50% with an equivalent grade of 3.0
5. Evaluation of the student's performance will be based on the results of the quizzes, one-hour examination, mid-term examination, final examination for both laboratory and lecture and requirements, if any.

Classroom Policies

1. Rules on class attendance as stipulated in Sections 1-3, Article 179, Chapter 49 of the USM Code as stated on the Section "Class Attendance" of the Student Manual, shall be applied.
2. Only students who are officially enrolled will be admitted to class.
3. Attendance to the class will be regularly monitored and recorded.
4. Learning materials shared in the class should only be accessed by students officially enrolled in the course.

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Classroom Policies

5. Students are expected to devote their scheduled class hours to cope up with the topics in the class syllabi and perform asynchronous learning.
6. Students are expected to manage their time to meet deadlines on lessons and topics assigned to them as stipulated in the course syllabi.
7. Outputs for the course such as reports during exams should be checked for plagiarism.
8. Students are expected to submit assignments and take-home activities on time.
9. Students are expected to provide their own means of access to the internet, as delivery of learning shall be partially online.
10. Students are expected to reach out to their classmates and instructor every time for monitoring and evaluation of learning.

UNIVERSITY OF SOUTHERN MINDANAO				
Course Syllabus for Basic Veterinary Microbiology				
Course Number	Vet Tech 322	Rev. No.	1	Page 1 of 16

EFFECTIVE DATE	REV. NO.	REVISION TYPE	CHANGE DESCRIPTION	PAGE AFFECTED	ORIGINATOR
February 01, 2021	1	Partial	Revised in accordance to CHED's OBE requirements changing document to Outcomes-Based Teaching and Learning (OBTL) Course Syllabus incorporating Program Information section, Program Educational Objectives (PEO), Program Outcomes (PO), Curriculum Component, Lecture and Laboratory Hours, Co-requisites, Year Level and Semester Offering, Faculty Consultation Hours and Contact Information, Level Legend, Numbering scheme of the ILO, Lifelong Learning Opportunity section, Course Evaluation section, PO, Course, CO, and ILO, deletion of Institutional I Outcomes statements and removal of Values Integration column, Course Outline section and Course Requirement section.	ALL	FLEURMINA EULA C. USOP
July 06, 2016	0	New	Newly established in accordance to the Quality management System Requirements	ALL	EMERLIE R. OKIT

Author:	Reviewer:	Verifier:	Validator:	Final Approver:	DCC USE ONLY
FLEURMINA EULA C. USOP Faculty	JOSEPHINE R. FLORES Department Curriculum Coordinator	VRENELIE II D. FLORES Department Chairperson	ROLANDO J. GARDUQUE Dean	CONSUELO A. TAGARO Vice President for Academic Affairs	DOCUMENT CONTROL INDICATOR MASTER 2021.01.27 COPY
Date: 2021.01.13	Date: 2021.01.15	Date: 2021.01.19	Date: 2021.01.21	Date: 2021.01.27	

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INSTITUTIONAL POLICIES	
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AREA II: | FACULTY

	3. Not only to become competent veterinarian but also to enable them to acquire proficiency in communication skills and become familiar with the basic principles in social and natural sciences.
Department Objectives	To produce BS Vet Tech graduates who are: 1. Globally competent in the prevention, and control of diseases of different animal species; 2. Globally competent to formulate, communicate and implement programs in animal health and production and health management, animal health, food safety, public health, animal welfare and environmental production and preservation; 3. Achievers, team players and leaders in the profession or related fields of practice; 4. capable to handle and conduct researches in pharmaceutical, biotechnological and other industrial fields; and 5. Understand and apply biological principles and mechanisms underlying animal production, health and diseases.

PROGRAM INFORMATION					
Degree Program	**BACHELOR OF SCIENCE IN VETERINARY TECHNOLOGY**	CHED CMO Reference	**No. 1 Series 2018**	BOR Approval	

COURSE DETAILS					
Course Title	**Basic Veterinary Microbiology**				
Course Number	**Vet Tech 322**		Curriculum Component	**Veterinary Technology**	
Credit (--Unit)	**3**	LECTURE (Unit-Hours)	**3-2**	LABORATORY (Unit-Hours)	**3-3**
Prerequisites	**Chem 122**	Co-requisites	**None**	Year Level/Semester Offered	**3rd year/ 2nd semester**
Course Description	**This course provides an overview of the classification and general characteristics of microorganisms of veterinary importance. The course includes both lectures and activities to reinforce knowledge and identification skills necessary for the veterinary technician.**				
Faculty in charge	FLEURMINA EULA C. USOP				
Consultation Hours			Contact Information	fecusop@usm.edu.ph	

AREA II: | FACULTY

PROGRAM EDUCATIONAL OBJECTIVES (PEO)		**MISSION**		
Upon graduation, the University of Southern Mindanao **BS Vet Tech** students must be able to:		*M1*	*M2*	*M3*
PEO 1	Provide leadership in various development programs both public and private	✓		
PEO 2	Equip with technical, conceptual and human resource skills	✓		✓
PEO 3	Pursue entrepreneurial activities	✓		✓
PEO 4	Able to adapt to diverse culture		✓	
PEO 5	Pursue advanced studies in emerging related fields		✓	✓
PEO ...	(*Insert additional PEO's if applicable*)			

NOTE: The PEO's are based on the professional, industry, local, national and international needs and requirements of the program identified through consultation with constituents and stakeholders.

PROGRAM OUTCOMES (PO) Upon graduation, the University of Southern Mindanao **BS Vet Tech** students must be able to:	PEO1	PEO2	PEO3	PEO4	PEO5	PEO6	PEO7	PEO8	PEO9	PEO10	...
a) Articulate and discuss the latest development in the specific field of practice.		✓									
b) Effectively communicate orally and in writing using both English and Filipino		✓			✓						
c) Work effectively and independently in multidisciplinary and multi-cultural teams.			✓	✓							
d) Act in recognition of professional, social and ethical responsibility	✓										
e) Preserve and promote "Filipino historical and cultural heritage"					✓						
f) Participate in the generation of new knowledge in research and development projects.		✓	✓								
g) Generate and share knowledge as it applies to specific problems in the discipline	✓	✓	✓	✓							
h) Formulate sustainable and productive agricultural development plans and programs	✓		✓	✓	✓						
i) Understand and apply biological principles and mechanisms underlying animal production, health and diseases	✓			✓	✓						
j) Apply diagnostic methods and interpret results for accurate disease diagnosis	✓	✓	✓	✓	✓						
k) Develop and formulate plans and programs for prevention and control of diseases	✓			✓	✓						
l) Design and engage in social entrepreneurial ventures in the field of practice				✓							

NOTE: Minimum PO's shall come from the PSG/CMO of the program if applicable. Other additional PO's may come from consultations with constituents and stakeholders.

AREA II: | FACULTY

COURSE OUTCOMES (CO)		POa	POb	POc	POd	POe	POf	POg	POh	POi	POj	POk	POl	POm	PON	POo	POp	POq	POr	POs	POt	POu	POv	POw	POx	POy	POz
Upon passing this course, the students must be able to:	**Course Alignment to Program Outcomes**																										
CO 1	Discuss and apply the principles of basic microbiology	I	P							I																	
CO 2	Discuss the comparative features of microorganisms;	I	P							I																	
CO 3	Discuss and apply methods of microbial characterization and culture;	I	P							I																	
CO 4	Discuss and apply methods of microbial growth and cultivation; and	I	P								I																
CO 5	Discuss and apply methods of control and prevention of microorganisms.	I	P										I														

__Level__(follow the legend used in the most relevant PSG/CMO)*

[I] Introductory. Introduced to concepts/principles [P] Practiced. Practiced with supervision. [D]Demonstrative. Demonstrated with minimal supervision.

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience, students must be able to*	Aligned to CO:	Time Frame *(Week)*	Course Content *(Topics)*	Teaching Activities	Learning Activities	Learning Materials	Assessment (AT)	Tasks	Suggested Readings
1. Describe the policies, lecture and laboratory classes including the computation of their grades. 2. Describe the coverage of the course and the requirements. 3. Discuss the vision and mission of the USM and the goal of CVM related to objectives of CVM 4. Enumerate the quality policy statement of the university		**Week 1**	**Class Orientation** 1. Policies/Rules And Regulation In The Lecture Class/Laboratory 2. Computation Of Grades/Grading System 3. Requirements In The Lecture And Laboratory Classes 4. Vision, Mission, Goals And Objectives Of USM and CVM 5. GREAT USM 6. Coverage Of The Course/s 7. Quality Policy Statement	Online Orientation	Visiting the USM Homepage Downloading and reading of electronic files posted in USM VLE	Business machine	Recitation		USM VMGO https://www.usm.edu.ph/about-usm/mandates-vision-mission/
1. Discuss the origin of microbiology as a science.	**CO1**	**Week 2**	I. Scope and History of Microbiology A. Why Study Microbiology?	Asynchronous	Downloading and reading of e-modules	E-Learning module via VLE,	Online examination in multiple choice		[2] pp.1-5

2. Discuss the development in veterinary microbiology.			B. Scope of Microbiology C. Historical Roots of Microbiology	Online Teaching; Offline Teaching; Online Synthesizing Activities	Completion of Assessment task	Messenger, Google Meet Business machine	format, and short answer questions	[3] pp. 1-8
1. Identify the different types and functions of microscope, equipment, supplies and materials in the microbiology laboratory. 2. Illustrate how to properly use and care for the microscope.	CO1 CO1	Week 3	II. Microscopy A. The Microscope: Parts and Functions B. Types of Microscope C. Equipment, supplies and materials in the microbiology laboratory.	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities **Laboratory** Review on the different parts of a compound microscope	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	[1] pp. 51-65
1. Describe the major groups of microorganisms 2. Describe the gross and microscopic characteristics of various types of microorganisms. 3. List the major characteristics that	CO2	Week 4	III. Characterization of Microorganisms A. The Major Group of Microorganisms B. Gross and microscopic characteristics of the major group of microorganisms.	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	[1] pp. 1-6

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differentiate the groups of microorganisms			C. Characteristics that differentiate the different groups of microorganisms.					
1. Recognize and compare structural characteristics of prokaryotic and eukaryotic structures. 2. Compare and discuss the functions of prokaryotic and eukaryotic cells. 3. List the differences between prokaryotic Gram-negative and Gram-positive cells.	CO2 CO2	Week 5	IV: Prokaryotic and Eukaryotic Structures A. Structural characteristics of prokaryotic and eukaryotic cells. B. Functions of prokaryotic and eukaryotic cells. C. Differences between the prokaryotic gram-negative and gram-positive	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities **Laboratory** Cellular morphology and arrangement of bacteria	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	[1] pp. 77-101
1. Describe the various physical barriers and mechanical defenses that protect the human body against infection and disease. 2. Describe the role of microbiota as a first-line	CO2	Week 6	V. Introduction to Innate Nonspecific Host Defenses A.Physical Defenses 1. Physical barriers 2.Mechanical defenses 3.Microbiome B.Chemical defenses	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	[1] pp. 472-491

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defense against infection and disease. 3. Describe how enzymes in body fluids provide protection against infection or disease. 4. List and describe the function of antimicrobial peptides, complement components, cytokines, and acute-phase proteins. 5. Identify and describe the components of blood. 6. Explain the process by which the formed elements of blood are formed (hematopoiesis). 7. Describe the characteristics of formed elements found in peripheral blood, as well as their respective functions within the innate immune system.			1. Chemicals and enzymes in body fluids 2. Antimicrobial peptides 3. Plasma protein mediators 4. Cytokines 5. Inflammation-eliciting mediators	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	
1. Describe the characteristics of an ideal disinfectant/antiseptics.	CO5	Week 7	VI. Controls of Microorganisms: Disinfectants and Antiseptics	Asynchronous		E-Learning module via VLE,	Online examination in multiple choice	[1] pp. 345-366

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2. Discuss the specific applications of the major groups of chemicals used as disinfectants and antiseptics. 3. Explain how the autoclave can kill microorganisms. 4. Discuss how temperature, radiation, filters, and moisture affect microbial survival and control.	CO5		A. Properties of Disinfectants and antiseptics B. Major groups of chemicals as disinfectants and antiseptics C. The autoclave D. Factors affecting the microbial survival and growth	Online Teaching; Offline Teaching; Online Synthesizing Activities	Downloading and reading of e-modules Completion of Assessment task	Messenger, Google Meet Business machine	format, and short answer questions	
1. Enumerate the do's and don'ts in the laboratory. 2. Explain the concept of "safety first" when in the laboratory. 4. List the rules concerning the borrowing of apparatus/equipment in the laboratory.	CO1 CO1	Week 8	VII. Laboratory Safety Guidelines A. Rules concerning the borrowing of apparatus/ equipment. B. The effectiveness of hand washing	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities **Laboratory** Evaluation of disinfectants	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	[4] pp. 1-9
All ILOs covered in Midterm		**Week 9**	**MIDTERM EXAMINATION**					

1. Discuss the basic principles of the various staining methods. 2. Differentiate Gram-negative from Gram-positive stained cells.	CO1	**Week 10**	VIII. Staining Techniques in Microbiology A. Preparation of Specimens for the Light Microscope 1. Wet Mounts 2. Smears B. Principles of Staining 1. The Gram Stain 2. The Ziehl-Neelsen Acid-Fast Stain 3. Special Staining Procedures a. Negative Staining. b. Flagellar Staining c. Endospore Staining	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	[1] pp. 68-69
1. Classify microorganisms into group based on their temperature, pH, osmotic pressure and oxygen requirements 2. Identify other requirements needed by microorganisms for their growth.	CO3 CO4	**Week 11-14**	IX. Growth and Culturing of Bacteria A. Growth and Cell Division 1. Microbial Growth Defined	*Asynchronous* *Online Teaching; Offline Teaching; Online Synthesizing Activities* Laboratory	*Downloading and reading of e-modules* *Completion of Assessment task*	*E-Learning module via VLE, Messenger, Google Meet* *Business machine*	*Online examination in multiple choice format, and short answer questions*	[1] pp. 146-172

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1. Discuss the basic principles of the various staining methods. 2. Differentiate Gram-negative from Gram-positive stained cells.	CO1	Week 10	VIII. Staining Techniques in Microbiology A. Preparation of Specimens for the Light Microscope 1. Wet Mounts 2. Smears B. Principles of Staining 1. The Gram Stain 2. The Ziehl-Neelsen Acid-Fast Stain 3. Special Staining Procedures a. Negative Staining. b. Flagellar Staining c. Endospore Staining	Asynchronous Online Teaching; Offline Teaching; Online Synthesizing Activities	Downloading and reading of e-modules Completion of Assessment task	E-Learning module via VLE, Messenger, Google Meet Business machine	Online examination in multiple choice format, and short answer questions	[1] pp. 68-69
1. Classify microorganisms into group based on their temperature, pH, osmotic pressure and oxygen requirements 2. Identify other requirements needed by microorganisms for their growth.	CO3 CO4	Week 11-14	IX. Growth and Culturing of Bacteria A. Growth and Cell Division 1. Microbial Growth Defined	*Asynchronous* *Online Teaching; Offline Teaching; Online Synthesizing Activities* Laboratory	*Downloading and reading of e-modules* *Completion of Assessment task*	*E-Learning module via VLE, Messenger, Google Meet* *Business machine*	*Online examination in multiple choice format, and short answer questions*	[1] pp. 146-172

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3. Describe the phases of bacterial growth. 4. Describe the method used in measuring bacterial growth 5. Distinguish between chemically defined and complex medium. 6. Identify the use of each of the following media: selective, differential and enrichment media. 7. Describe the methods of obtaining pure culture and preserving bacterial cultures			2. Phases of Growth 3.Measuring Bacterial Growth B. Factors Affecting Bacterial Growth 1. Physical Factors 2.Nutritional Factors 3.Bacterial Interactions Affecting Growth C. Sporulation D.Culturing Bacteria 1. Methods of Obtaining Pure Cultures 2. Culture Media 3. Methods of Performing Multiple Diagnostic Tests	Enumeration of bacteria Pure culture techniques				
1. Classify microorganisms of veterinary importance. 2. Identify diseases caused by microorganisms. 3. Describe the salient signs and symptoms of	**CO1**	**Week 13-14**	X. Classification of Microorganisms of veterinary importance and the diseases they cause. A. Bacterial Diseases B. Viral Diseases	*Asynchronous* *Online Teaching; Offline Teaching; Online Synthesizing Activities)*	*Downloading and reading of e-modules* *Completion of Assessment task*	*E-Learning module via VLE, Messenger, Google Meet* *Business machine*	*Online examination in multiple choice format, and short answer questions*	[4] pp. 36-172

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the diseases caused by microorganisms.			C. Fungal Diseases			*Onsite and online exam*		
1. Discuss the processes involved during the infection of the host by the microorganisms.	**CO1**	**Week 15**	XI. Mechanisms and consequences of infection of microorganisms.	*Asynchronous* *Online Teaching; Offline Teaching; Online Synthesizing Activities*	*Downloading and reading of e-modules* *Completion of Assessment task*	*E-Learning module via VLE, Messenger, Google Meet* *Business machine*	*Online examination in multiple choice format, and short answer questions*	[1] pp. 405-423
1. Describe the characteristics of an ideal microbial agent. 2. Discuss the specific applications of the major groups of chemicals used as antimicrobials. 3. List examples of antibiotics and chemotherapeutic agents. 4. Outline events leading to the era of chemotherapy. 5. Distinguish between antibiotics and other chemotherapeutic agents.	**CO5**	**Week 16-17**	XII. Antibiotics and Other Chemotherapeutic Agents A. Characteristics of an ideal antimicrobial agent B. Classification, mode of action of antibiotics and other chemotherapeutic agents	*Asynchronous* *Online Teaching; Offline Teaching; Online Synthesizing Activities* *Asynchronous* *Online Teaching;*	*Downloading and reading of e-modules* *Completion of Assessment task* *Downloading and reading of e-modules*	*E-Learning module via VLE, Messenger, Google Meet* *Business machine* *E-Learning module via VLE,*	*Online examination in multiple choice format, and short answer questions* *Online examination in multiple choice format, and short answer questions*	[1] pp.372-391

				Offline Teaching; Online Synthesizing Activities	*Completion of Assessment task*	*Messenger, Google Meet* *Business machine*		
All ILOs covered in the Course		**Week 18**		**FINAL EXAMINATION**				

** any interaction, course, program, or other experience in which learning takes place (https://www.edglossary.org/learning-experience/).*

Textbook/References

[1] Black, J.G., and Black, L.J. (2015). *Microbiology: Principles and Explorations*. John Wiley & Sons, Inc.

[2] Introduction, History & Scope of Veterinary Microbiology. (n.d.). Retrieved from http://veterinarymicrobiology.in/introduction-scope-history-of-veterinary-microbiology/#:~:text=Role%20of%20microbiology%20is%20unparallel,by%20performing%20drug%20sensitivity%20test.&text=Knowledge%20of%20veterinary%20microbiology%20is,vaccines%20for%20diseases%20of%20livestock.

[3] Introduction, Scope, and Historical Development of Veterinary Microbiology. (n.d.) Retrieved from http://veterinarymicrobiology.in/wp-content/uploads/2017/11/Introduction-Scope-and-Historical-Development-of-Veterinary-Microbiology-Lecture-notes.pdf.

[4]. Quinn, P.J., Markey, B.K., Leonard, F.C., and Fanning, S. (2016). *Concise Review of Veterinary Microbiology*. John Wiley & Sons, Inc.

Life-long Learning Opportunity

AREA II: | FACULTY

Course Evaluation

Course Outcomes (CO)	Assessment Task Addressing CO	Weight (%)	Satisfactory Rating	Target Standard
CO_1: Discuss and apply the principles of basic microbiology	Written Exam Assignments	15 5	20%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_2: Discuss the comparative features of microorganisms;	Written Exam Assignments	15 5	20%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_3: Discuss and apply methods of microbial characterization and culture;	Written Exam Assignments	15 5	20%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_4: Discuss and apply methods of microbial growth and cultivation; and	Written Exam Assignments	15 5	20%	60% of the class obtained a rating of at least 4 and/or a score of 50
CO_5: Discuss and apply methods of control and prevention of microorganisms.	Written Exam Assignments	15 5	20%	60% of the class obtained a rating of at least 4 and/or a score of 50

Grading System

1. The University grading system shall be adopted, where the term grade shall constitute 33% of the grade for quizzes and long examinations and 67% for the term examination.
2. The term grade shall constitute 50% of the lecture grade and 50% of laboratory grade.
3. The final grade shall constitute 33% of the mid-term grade and 67% of the final term grade.
4. Passing percentage in any examination is 50% with an equivalent grade of 3.0

Evaluation of the student's performance will be based on the results of the quizzes, one-hour examination, mid-term examination, final examination and requirements, if any.

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Classroom Policies
1. Participation in class recitation 2. On time submission of laboratory reports 3. Pass the quizzes and term examinations 4. Submission of additional requirements

UNIVERSITY OF SOUTHERN MINDANAO				
Course Syllabus for Small, Large and Exotic Animal Nursing				
Course Number	Vet Tech 321	Rev. No.	2	Page 1 of 18

EFFECTIVE DATE	REV. NO.	REVISION TYPE	CHANGE DESCRIPTION	PAGE AFFECTED	ORIGINATOR
February 12, 2024	2	Partial	Revised in accordance with CHED's requirements changing the Teaching-Learning Activities (TLAs), and deletion of some Learning Materials and Assessment Tasks that are not anymore applicable with face-to-face instruction and changing the College Goals and Objectives to the BOR-approved revised College Goals and Objectives (BOR Resolution No. 193, Series of 2023).	ALL	PRECIOUS AMOR A. BESO DESERIE JANE V. OLIVAR
January 24, 2022	1	Partial	Revision in accordance with the 18-week time frame for the delivery of instruction and inclusion of new topics from new references.	ALL	PRECIOUS AMOR A. BESO
July 4, 2016	Ø	New	Newly established in accordance with the Quality Management System Requirements	ALL	PRECIOUS AMOR A. BESO

Author:	Reviewer:	Verifier:	Validator:	Final Approver:	DCC USE ONLY
DESERIE JANE V. OLIVAR PRECIOUS AMOR A. BESO Faculty	JOSEPHINE R. FLORES Department Curriculum Coordinator	ROLANDO J. GARDUQUE Department Chairperson	ELIZABETH C. MOLINA Dean	MARCOS F. MONDERIN OIC-Vice President for Academic Affairs	DOCUMENT CONTROL INDICATOR MASTER 2024.01.22 COPY
Date: 2024.01.10	Date: 2024.01.12	Date: 2024.01.16	Date: 2024.01.18	Date: 2024.01.22	

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INSTITUTIONAL POLICIES	
Vision	Quality and relevant education for its clientele to be globally competitive, culture sensitive and morally responsive human resources for sustainable development.
Mission	Help accelerate socio-economic development[M1], promote harmony among the diverse cultures[M2] and improve quality of life[M3] through instruction, research, extension, and resource generation in Southern Philippines.
Core Values	**G**-Goodness, **R**-Responsiveness, **E**-Excellence, **A**-Assertion of Right and **T**-Truth
USM Quality Policy Statement	The University of Southern Mindanao, as a premier university, is committed to provide quality instruction, research development and extension services and resource generation that exceed stakeholders' expectations through the management of continual improvement efforts on the following initiatives. 1. Establish key result areas and performance indicators across all mandated functions; 2. Implement quality educational programs; 3. Guarantee competent educational service providers; 4. Spearhead need-based research outputs for commercialization, publication, patenting, and develop technologies for food security, climate change mitigation and improvement in the quality of life; 5. Facilitate transfer of technologies generated from research to the community for sustainable development; 6. Strengthen relationship with stakeholders; 7. Sustain good governance and culture, sensitivity; and 8. Comply with customer, regulatory and statutory requirements.
Goals of the College	The College aims to produce graduates possessing competence in the practice of general veterinary medicine that could assist in the treatment, control, prevention of the animal diseases. These graduates shall be also competent in the field of animals and public health. Parallel with this, the graduates are trained to be effective agents in the delivery of animal health and production technologies to farmers.

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INSTITUTIONAL POLICIES	
	The College aims to produce men and women who are sensitive to the needs of the society and to male significant contribution in the field of animal health research that will benefit the small-scale poultry livestock owners, through a meaningful and vigorous extension program.
Department Objectives	To achieve these objectives, the students and trained: 1. To treat, prevent and control diseases; to conduct disease surveillance, and formulate animal health management programs; 2. To perform functions related to public health, promotion of animal rights and welfare and learn advancement of animal production and preservation of wildlife; 3. Not only to become competent veterinarians and veterinary technologists but also to enable them to acquire proficiency in communication skills and become familiar with the basic principles in social and natural sciences; 4. To exhibit altruism, integrity, honesty, responsibility, and compassion in the delivery of veterinary services: 5. To be culturally sensitive; and 6. To demonstrate knowledge and understanding of the concepts of "One Health" in the practice of the veterinary profession.

PROGRAM INFORMATION					
Degree Program	**BACHELOR OF SCIENCE IN VETERINARY TECHNOLOGY**	CHED CMO Reference	**No. 1 Series 2018**	BOR Approval	

COURSE DETAILS					
Course Title	**Small, Large and Exotic Animal Nursing**				
Course Number	**Vet Tech 321**		Curriculum Component	**Veterinary Medicine**	
Credit (--Unit)	**5**	LECTURE (Unit-Hours)	**3**	LABORATORY (Unit-Hours)	**6**
Prerequisites	**Vet Tech 311**	Co-requisites	**None**	Year Level/Semester Offered	**3rd Year / 2nd Semester**

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COURSE DETAILS			
Course Description	This course provides information on skills to work in a clinical setting. Emphasis will be on safety , handling and restraining techniques , general patient care and assessment, and medicating small , large and exotic animals. The course will concentrate on small animals (canine and feline) , large animals (horses, cattle, sheep,goat and pigs)and exotic animals (avian, reptiles, hedgehog, mice, Syrian hamster, guinea pig, rabbit and fish) medicine.		
Faculty in charge	*(Must not be filled up in the master copy)*		
Consultation Hours	*(Must not be filled up in the master copy)*	Contact Information	*(Must not be filled up in the master copy)*

PROGRAM EDUCATIONAL OBJECTIVES (PEO)		MISSION		
In 3-5 years, the University of Southern Mindanao **BS Vet Tech** students must be able to:		*M1*	*M2*	*M3*
PEO 1	Provide leadership in formulating, communicating, and implementing programs in animal health, animal production and health management, food safety, public health, animal welfare and environmental protection and preservation.	✔		✔
PEO 2	Occupy positions in local, national, and international agencies, competent in the prevention, diagnosis, treatment, and control of diseases of different animal species.	✔		✔
PEO 3	Capable to handle and conduct research in pharmaceutical, biotechnological, and other industrial fields.	✔		✔
PEO 4	Demonstrate expertise in imparting knowledge, conducting training and extension services.		✔	
PEO 5	Display multidisciplinary skills as achievers, team players and leaders in the profession or related fields of practice.		✔	✔

NOTE: The PEO's are based on the professional, industry, local, national, and international needs and requirements of the program identified through consultation with constituents and stakeholders.

PROGRAM OUTCOMES (PO)												
Upon graduation, the University of Southern Mindanao **BS Vet Tech** students must be able to:	PEO1	PEO2	PEO3	PEO4	PEO5	PEO6	PEO7	PEO8	PEO9	PEO10	..
a) Articulate and discuss the latest development in the specific field of practice.	✔	✔		✔	✔						

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PROGRAM OUTCOMES (PO) Upon graduation, the University of Southern Mindanao **BS Vet Tech** students must be able to:	PEO1	PEO2	PEO3	PEO4	PEO5	PEO6	PEO7	PEO8	PEO9	PEO10	..
b) Effectively communicate orally and in writing using both English and Filipino	✓	✓			✓						
c) Work effectively and independently in multidisciplinary and multi-cultural teams.	✓		✓	✓	✓						
d) Act in recognition of professional, social and ethical responsibility	✓	✓			✓						
e) Preserve and promote "Filipino historical and cultural heritage"				✓	✓						
f) Participate in the generation of new knowledge in research and development projects.		✓	✓								
g) Generate and share knowledge as it applies to specific problems in the discipline	✓	✓	✓	✓	✓						
h) Formulate sustainable and productive agricultural development plans and programs	✓	✓		✓							
i) Understand and apply biological principles and mechanisms underlying animal production, health and diseases	✓	✓	✓	✓							
j) Apply diagnostic methods and interpret results for accurate disease diagnosis	✓	✓	✓	✓							
k) Prescribe and implement treatment to remedy diseases and abnormalities of animals or prescribe termination of cases, as necessary	✓		✓	✓							
l) Develop and formulate plans and programs for prevention and control of diseases	✓	✓		✓	✓						
m) Design and engage in social entrepreneurial ventures in the field of practice				✓	✓						

NOTE: Minimum PO's shall come from the PSG/CMO of the program if applicable. Other additional PO's may come from consultations with constituents and stakeholders.

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COURSE OUTCOMES (CO)		PCa	PCb	PCc	PCd	PCe	PCf	PCg	PCh	PCi	PCj	PCk	PCl	PCm	PCn	PCo	PCp	PCq	PCr	PCs	PCt	PCu	PCv	PCw	PCx	PCy	PCz
Upon passing this course, the students must be able to:	**Course Alignment to Program Outcomes**																										
CO 1	Understand the principles of small, large and exotic animal nursing;	I	P							I																	
CO 2	Apply basic nursing techniques in small large, and exotic animals;	I	P							I																	
CO 3	Describe the handling and breeding consideration, signs of pain and distress, and health conditions of small, large, and exotic animals;	I	P							I																	
CO 4	Handle and restrain small, large and exotic animals for conduct of laboratory procedures; and	I	P							I																	
CO 5	List sites and volumes for injection and sampling.	I	P							I																	

*__Level__ *(follow the legend used in the most relevant PSG/CMO)*

[I]Introductory. This introduces the student to the Program Outcome (PO) **[E]**Enabling. This enables the student to attain the Program Outcome (PO) **[D]**Demonstrative. This demonstrates the student's attainmentof the Program Outcome (PO)

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COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame *(Week)*	Course Content *(Topics)*	Teaching & Learning Activities (TLA)		Learning Materials	Assessment Tasks (AT)	Suggested Readings
				Teaching Activities	Learning Activities			
1. Review the policies, rules and regulations in the lecture and laboratory classes including the grade computation. 2. Summarize the coverage of the course and the requirements. 3. Discuss the vision and mission, and quality policy objectives of USM and the goals of CVM.		1	**1. Class Orientation** 1.1. Policies/rules and regulations in the lecture/laboratory classes 1.2. Bases for the computation of grades/grading system 1.3. Requirements in the lecture and laboratory classes 1.4. Vision, Mission, and Quality Policy Statement of USM and CVM Goals & Objectives	Orientation through face-to-face mode Class orientation content within the course syllabi through face-to-face mode	Create class group chat Post course outline	Laptop Computer, DLP, PPT slides, e-copies of references	Participation in class discussion	Mission, Vision, Core Values and Quality Policy Statement at https://www.usm.edu.ph/ USM VMGO/Handbook [4]
1. Explain how to perform basic physical examination. 2. Discuss the importance of fluid therapy, why and how patient requirement may change.	CO1 CO2	2-6	I. Small Animal Nursing: Canine and Feline a. Physical Examination b. Fluid Therapy c. Drug Administration	Lecture discussion PPT presentation Interactive discussion	Brainstorming activities (by group) Watching instructional videos Readings	Computer, DLP, PPT slides, e-copies of references, video clips	Exams (oral/written): multiple choice, true/false and/or short answer questions	[2] pp. 208-214 [2] pp. 819-830 [2] pp. 543-556

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3. Explain and identify the signs and degree of dehydration. 4. Describe the various routes of fluid administration and why a specific route may be used. 5. Describe the various routes of drug administration. 6. Discuss the contraindications of certain routes of drug administration 7. Describe the venipuncture procedure in cats and dogs 8. Describe the collection and transfusion of blood in canine and feline patient 9. Discuss the difference between contaminated and infected wound 10. Differentiate various types of wound healing. 11. Define the protocol for wound management 12. Describe the various types of bandage			d. Venipuncture e. Blood Collection and Transfusion f. Wound Management: Immediate Wound Care Wound Debridement Wound Closure Wound Drainage Wound Infection Types of Wounds		Return Demo Laboratory activity (Physical Examination, Blood Collection on different venipuncture s sites, Drug administration and Wound Bandaging)			[2]pp. 556-560 [2]pp. 830-835 [2]917-923

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13. Define the indications and complications in bandaging the different areas of the body of small animals 14. Discuss euthanasia			g. Principles of Bandaging: Adherent Primary Layer Non-adherent Primary Layer Bandage, Cast, Splint And Sling Application In Small Animals Distal Limb Bandages Casts and Splints Slings					[2]pp. 924-936
1. Describe the anatomy and physiology of avian species. 2. Describe the optimum housing facility for avian species. 3. Demonstrate handling and restraint for avian species. 4. Describe nursing care for avian species.	CO1, CO4	7	3. Exotic Animal Nursing A. AVIAN Avian Introduction Anatomy and Physiology Comparative Clinical Pathology Nutrition History, Restraint and Physical Examination Common Diseases Radiology, Anesthesia and Analgesia	Lecture discussion PPT presentation Interactive discussion	Brainstorming activities (by group) Watching instructional videos Readings Return Demo	Computer, DLP, PPT slides, e-copies of references, video clips	Exams (oral/written): In multiple choice, true/false and/or short answer questions	[1] pp. 9-43 [1] pp. 67-180

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5. Discuss anesthesia techniques and common concerns in avian species. 6. Recognize common analgesics for avian species. 7. List optimum nutritional requirements for various avian species 8. Identify common clinical conditions and infectious diseases by describing their etiology,clinical signs and pathology. 9. Discuss ectoparasitic diseases in avian species			Surgery, Parasitology, Gender Der termination, Grooming , Emergency Critical Care Techniques Administration of Medications Diagnostic Sampling Wound Care and Bandaging Euthanasia.		Laboratory activity (Physical Examination, Blood Collection on various venipuncture s sites and Drug administration)			
1. Describe the anatomy and physiology in reptilian species. 2. Describe the optimum Housing facility for reptilian species. 3. Demonstrate handling and restraint for reptilian species. 4. Describe nursing care for reptilian species.		8	Reptilian B. Lizards: Introduction Anatomy and Physiology Husbandry History, Restraint and Physical Examination Emergency Techniques Anesthesia and Surgery Nutrition	Lecture discussion PPT presentation Interactive discussion	Return Demo Laboratory activity (Physical Examination, Blood Collection on various venipuncture s	Compute r, DLP, PPT slides, e-copies of reference s, video clips	Exams (oral/written): In multiple choice, true/false and/or short answer questions	

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5. Discuss anesthesia techniques and common concerns reptile's species. 6. Recognize common analgesics for reptilian species. 7. List optimum nutritional requirements for various reptilian species 8. Identify common clinical conditions and infectious diseases by describing their etiology, clinical signs and pathology. 9. Discuss ectoparasitic diseases in reptilian species			Toxicity and Miscellaneous Nutritional Disorders Commonn Disorders Zooonoses Parasitologyy. C. Snakes: Introduction Anatomy and Physiology Husbandry History, Restraint and Physical Examination Emergency Techniques Anesthesia and Surgery Nutrition Toxicity and Miscellaneous Nutritional Disorders Commonn Disorders Zooonoses Parasitologyy.		sites and Drug administration)			
1. Describe the anatomy and physiology of the hedgehog, mouse and rat. 2. Describe the handling and breeding consideration , signs of pain and distress ,	CO1, CO3, CO5,	9	D. Hedgehog E. Mouse F. Rat	Lecture discussion PPT presentation	Brainstorming activities (by group)	Computer, DLP, PPT slides, e-copies of	Exams (oral/written): In multiple choice, true/false	[1] pp.327-332 [1] pp.293-308

and health conditions of hedgehog, mouse and rat 3. List Suggested sites and volumes for injection and sampling from hedgehog, mouse and rat 4. Suggest appropriate housing for each species				Interactive discussion	Watching instructional videos Return Demo Laboratory activity Blood Collection on various venipuncture s sites and Drug administration) Readings	reference s, video clips	and/or short answer questions	
All ILOs covered in Midterm		10	**MIDTERM EXAMINATION**					
1. Describe the anatomy and physiology of the rabbit, guinea pig and fish. 2. Describe the handling and breeding consideration , signs of pain and distress,	CO1, CO3, CO5	11-12	G. Rabbit H. Guinea Pig I. Fish	Lecture discussion PPT presentation Interactive discussion	Brainstorming activities (by group)	Compute r, DLP, PPT slides, e-copies of reference	Exams (oral/written): In multiple choice, true/false and/or short	[1] pp. 255-289 [1] pp.319-325

AREA II: | FACULTY

and health conditions of rabbit, guinea pig and fish 3. List suggested sites an d volumes for injection and sampling from rabbits , guinea pig and fish 4. Suggest appropriate housing for each species					Watching instructional videos Readings Return Demo Laboratory activity Blood Collection on various venipuncture s sites and Drug administration)	s, video clips	answer questions	
1. Recognize normal values for adults horses 2. Discuss medication treatment routes 3. Discuss diseases, illnesses and the role of technologist in animal care/nursing	**CO1,**	**13**	III. Large Animal Nursing A. Equine	Lecture discussion PPT presentation Interactive discussion	Brainstorming activities (by group) Watching instructional videos	Compute r, DLP, PPT slides, e-copies of reference s, video clips	Exams (oral/written): In multiple choice, true/false and/or short answer questions	[2] pp.581-587,593,596 8 600 [3] pp.627-637

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4. Discuss pre & post-operative care in horses 5. Recognize common vaccines in horses 6. Describe bandaging techniques commonly applied in horses.					Readings Return Demo Laboratory activity Return Demo Laboratory activity Blood Collection Drug administration)			[2] pp 937-9346
1. Describe the techniques for administering medication and collecting samples in cattle. 2. Discuss common diseases cattle. 3. Recognize some of the preventable (vaccination) diseases of cattle	CO_2,	14	B. Cattle	Lecture discussion PPT presentation Interactive discussion	Brainstorming activities (by group) Watching instructional videos	Computer, DLP, PPT slides, e-copies of reference	Exams (oral/written): In multiple choice, true/false and/or short	[2] pp.584,589,593,597 &601 [3] pp. 334-355

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					Readings Return Demo Laboratory activity Blood Collection Drug administration)	s, video clips	answer questions	
1. Describe the techniques for administering medication and collecting samples in goat. 2. Discuss common diseases goat 3. Recognize some of the preventable (vaccination) diseases ofgoat drugs.	CO2	5	C. Goat	Lecture discussion PPT presentation Interactive discussion	Brainstorming activities (by group) Watching instructional videos Return Demo Laboratory activity, BloodCollection Drug administration)	Computer, DLP, PPT slides, e-copies of references, video clips	Exams (oral/written): In multiple choice, true/false and/or short answer questions	[2] pp. 585,589,593,597 &604 [3] pp 549-562

1. Describe the techniques for administering medication and collecting samples in sheep 2. Discuss common diseases sheep 3. Recognize some of the preventable (vaccination) diseases of sheep	CO2,	16	D. Sheep	Lecture discussion PPT presentation Interactive discussion	Brainstorming activities (by group) Watching instructional videos Readings Return Demo Laboratory activity (Blood Collection Drug administration)	Computer, DLP, PPT slides, e-copies of references, video clips	Exams (oral/written): In multiple choice, true/false and/or short answer questions	[2] pp. 585,589,593,597&604 [3] pp. 549-562
1. Describe the techniques for administering medication and collecting samples in pig 2. Discuss common diseases pig.	CO2,	17	E. Pig	Lecture discussion PPT presentation	Brainstorming activities (by group)	Computer, DLP, PPT slides, e-copies of reference	Exams (oral/written): In multiple choice, true/false and/or short	[2] pp.586,590,593,597 &605 [3] pp. 446-463

3. Recognize some of the preventable (vaccination) diseases of pig.				Interactive discussion	Watching instructional videos Readings Return Demo Laboratory activity Blood Collection Drug administration)	s, video clips	answer questions	
ALL ILOs covered in the Course		**18**	**FINAL EXAMINATION**					

** any interaction, course, program, or other experience in which learning takes place (https://www.edglossary.org/learning-experience/).*

Textbook/References

[1] Ballard , B and Cheek , R.(2010). *Exotic Animal Medicine for Veterinary Technician 2nd Edition*. Blackwell Publishing.
[2] Bassert, J.M., Beal, A.D., and Samples , O.M. (2018). *McCurnin's Clinical Textbook for Veterianry Technicians*. Elsevier,Inc
[3]Gillespie, J.R., and Flanders, F.B.(2010).*Modern Livestock and Production 8th Edition*. Delmar, Cengage Learning
[4] USM Code, 2005 and 2021 edition

AREA II: | FACULTY

Life-long Learning Opportunity

[1] Developing new skills through internship/apprenticeship in veterinary clinics, veterinary farms, and diagnostic laboratories.
[2] Acquisition of new knowledge and skills through mentoring from expert professionals, engaging in self-directed learning (i.e., relevant trainings, conferences), and conducting research from topics of interest.

Course Evaluation

Course Outcomes (CO)	Assessment Task Addressing CO	Weight (%)	Satisfactory Rating	Target Standard
CO 1: Understand the principle of small, large and exotic animal nursing.	Examination in multiple choice, true/false and short answer questions	15 5	50%	60% of the class obtained a rating of at least 4.0 and/or a passing score of 50%
CO 2: Apply basic nursing techniques in small, large and exotic animal nursing.	Examination in multiple choice, true/false and short answer questions	15 5	50%	60% of the class obtained a rating of at least 4.0 and/or a passing score of 50%
CO 3: Describe the handling and breeding consideration, signs of pain and distress , and health conditions of small, large and exotic animals.	Examination in multiple choice, true/false and short answer questions	15 5	50%	60% of the class obtained a rating of at least 4.0 and/or a passing score of 50%
CO 4: Safely handle and restrains small, large and exotic animals for conduct of laboratory procedures ; and	Examination in multiple choice, true/false and short answer questions	15 5	50%	60% of the class obtained a rating of at least 4.0 and/or a passing score of 50%

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Course Evaluation

Course Outcomes (CO)	Assessment Task Addressing CO	Weight (%)	Satisfactory Rating	Target Standard
CO 5: List sites and volumes for injection and sampling	Examination in multiple choice, true/false and short answer questions	15 5	50%	60% of the class obtained a rating of at least 4.0 and/or a passing score of 50%

Grading System

1. The University grading system shall be adopted, where the term grade shall constitute 40% of the grade for quizzes and long examinations and 60% for the term examination.
2. The term grade shall constitute 60% of the lecture grade and 40% laboratory grade.
3. The final grade shall constitute 50% of the mid-term grade and 50% of the final term grade.
4. Passing percentage in any examination is 50% with an equivalent grade of 3.0
5. Evaluation of the student's performance will be based on the results of the quizzes, one-hour examination, mid-term examination, final examination for both laboratory and lecture and requirements, if any.
6. The Laboratory grade shall constitute 50% of the performance in the laboratory activities and 50 % the term examination.

Classroom Policies

1. Only students who are officially enrolled will be admitted to class.
2. Rules on class attendance as stipulated in Sections 1-3, Article 179, Chapter 49 of the USM Code as stated on the Section "Class Attendance" of the Student Manual, shall be applied.
3. Attendance to the class will be regularly monitored and recorded.
4. Learning materials shared in the class should only be accessed by students officially enrolled in the course.
5. Students are expected to devote their scheduled class hours to cope up with the topics in the class syllabi and perform lecture learning.
6. Students are expected to manage their time to meet deadlines on lessons and topics assigned to them as stipulated in the course syllabi.
7. Outputs for the course such as reports during exams should be checked for plagiarism.
8. Students are expected to submit assignments and take-home activities on time.

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Classroom Policies
9. Students are expected to provide their own means of access to the internet, as delivery of learning shall be partially online. 10. Students are expected to reach out to their classmates and instructor every time for monitoring and evaluation of learning.

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UNIVERSITY OF SOUTHERN MINDANAO

Course Syllabus for Ruminant Production and Herd Health Management

Course Number	Zootech 226	Rev. No.	2	Page 1 of 15

EFFECTIVE DATE	REV. NO.	REVISION TYPE	CHANGE DESCRIPTION	PAGE AFFECTED	ORIGINATOR
January 24, 2022	2	Partial	Revision in accordance to 18-week time frame for the delivery of instruction	pp. 1-15	JOSEPHINE R. FLORES PRECIOUS AMOR A. BESO
January 22, 2021	1	Partial	Revised in accordance to CHED's OBE requirements changing document name to Outcomes-Based Teaching and Learning (OBTL) Course Syllabus incorporating Program Information section, Program Educational Objectives (PEO), Program Outcomes (PO), Curriculum Component, Lecture and Laboratory Hours, Co-requisites, Year Level and Semester Offering, Faculty Consultation Hours and Contact Information, Level Legend, Numbering scheme of the ILO, Lifelong Learning Opportunity section, Course Evaluation section, Faculty in charge replacing Professor, subdividing TLA into Teaching Activities and Learning Activities, alignment of the Mission, PEO, PO, Course, CO, and ILO, deletion of Institutional Outcomes statements and removal of Values Integration column, Course Outline section and Course Requirements section. Revised according to COVID-19 Guidelines.	ALL	JOSEPHINE R. FLORES PRECIOUS AMOR A. BESO
February 15, 2020	Ø	New	Newly established in accordance to the Quality Management System Requirements	ALL	CARLITO B. SANCHEZ

Author:	Reviewer:	Verifier:	Validator:	Final Approver:	DCC USE ONLY
JOSEPHINE R. FLORES PRECIOUS AMOR A. BESO Faculty	VRENELIE I. D. FLORES Department Curriculum Coordinator	LILIAN A. LUMBAO Department Chairperson	ELIZABETH C. MOLINA Dean	GEOFFRAY R. ATOK, PhD Vice President for Academic Affairs	DOCUMENT CONTROL INDICATOR MASTER 2022.01.21 COPY
Date: 2022.01.03	Date: 2022.01.06	Date: 2022.01.13	Date: 2022.01.14	Date: 2022.01.21	

AREA II: | FACULTY

INSTITUTIONAL POLICIES	
Vision	Quality and relevant education for its clientele to be globally competitive, culture sensitive and morally responsive human resources for sustainable development.
Mission	Help accelerate socio-economic development[M1], promote harmony among the diverse cultures[M2] and improve quality of life[M3] through instruction, research, extension and resource generation in Southern Philippines.
Core Values	**G**-Goodness, **R**-Responsiveness, **E**-Excellence, **A**-Assertion of Right and **T**-Truth
USM Quality Policy Statement	The University of Southern Mindanao, as a premier university, is committed to provide quality instruction, research development and extension services and resource generation that exceed stakeholders' expectations through the management of continual improvement efforts on the following initiatives. 1. Establish key result areas and performance indicators across all mandated functions; 2. Implement quality educational programs; 3. Guarantee competent educational service providers; 4. Spearhead need-based research outputs for commercialization, publication, patenting, and develop technologies for food security, climate change mitigation and improvement in the quality of life; 5. Facilitate transfer of technologies generated from research to the community for sustainable development; 6. Strengthen relationship with stakeholders; 7. Sustain good governance and culture, sensitivity; and 8. Comply with customer, regulatory and statutory requirements.
Goals of the College	The College aims to produce graduates possessing competence in the practice of general veterinary medicine that could assists in the treatment, control and prevention of animal diseases. These graduates shall also be competent in the field of animal and public health. Parallel with this, the graduates are trained to be effective agents in the delivery of animal health and production technologies to farmers.
Department Objectives	The college aims to produce men and women who are sensitive to the needs of the society and to make significant contribution in the field of animal health research that will benefit the small scale poultry and livestock owners, through a meaningful and vigorous extension program.

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INSTITUTIONAL POLICIES	
	To achieve these objectives, the students are trained: 1. To diagnose, treat, prevent and control diseases; to conduct disease surveillance, and formulate animal health management programs; 2. To perform functions related to public health, promotion of animal rights and welfare and learn the advancement of animal production and preservation of wildlife; 3. Not only to become a competent veterinarian but also to enable them to acquire proficiency in communication skills and become familiar with the basic principles in social and natural sciences.

PROGRAM INFORMATION					
Degree Program	**Doctor of Veterinary Medicine**	CHED CMO 1 series 2018		BOR Approval	

COURSE DETAILS					
Course Title	**Ruminant Production and Herd Health Management**				
Course Number	**Zootech 226**		Curriculum Component	**Zootechnic Courses**	
Credit (--Unit)	**3**	LECTURE (Unit-Hours)	**2-2**	LABORATORY (Unit-Hours)	**1-3**
Prerequisites	**Zootech 211**	Co-requisites	**None**	Year Level/Semester Offered	**2nd Year / Second Semester**
Course Description	The principles of farm animal nutrition, digestive and absorptive processes and factors which affect them				
Faculty in charge	*Dr. Josephine R. Flores*				
Consultation Hours	*(Must not be filled up in the master copy)*		Contact Information	*(Must not be filled up in the master copy)*	

PROGRAM EDUCATIONAL OBJECTIVES (PEO)		MISSION		
In 3-5 years, the graduates of USM shall:		*M1*	*M2*	*M3*
PEO 1	Provide leadership in various development programs both public and private	✓		
PEO 2	Equip with technical, conceptual and human resource skills	✓		✓
PEO 3	Pursue entrepreneurial activities	✓		✓
PEO 4	Able to adapt to diverse culture		✓	

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UNIVERSITY OF SOUTHERN MINDANAO						
Course Number	Zootech 226	Course Title	Ruminant Production and Herd Health Management	Rev. No.	2	Page4of15

PROGRAM EDUCATIONAL OBJECTIVES (PEO)		MISSION		
In 3-5 years, the graduates of USM shall:		M1	M2	M3
PEO 5	Pursue advanced studies in emerging related fields		✓	✓

NOTE: The PEO's are based on the professional, industry, local, national and international needs and requirements of the program identified through consultation with constituents and stakeholders.

PROGRAM OUTCOMES (PO) Upon graduation, the University of Southern Mindanao students must be able to:	PEO1	PEO2	PEO3	PEO4	PEO5	PEO6	PEO7	PEO8	PEO9	PEO10	...
a) Articulate and discuss the latest development in the specific field of practice.		✓									
b) Effectively communicate orally and in writing using both English and Filipino		✓			✓						
c) Work effectively and independently in multidisciplinary and multi-cultural teams.			✓	✓							
d) Act in recognition of professional, social and ethical responsibility	✓										
e) Preserve and promote "Filipino historical and cultural heritage"				✓							
f) Participate in the generation of new knowledge in research and development projects.		✓	✓								
g) Generate and share knowledge as it applies to specific problems in the discipline	✓	✓	✓	✓							
h) Formulate sustainable and productive agricultural development plans and programs	✓		✓	✓	✓						
i) Understand and apply biological principles and mechanisms underlying animal production, health and diseases	✓			✓	✓						
j) Apply diagnostic methods and interpret results for accurate disease diagnosis	✓	✓	✓	✓	✓						
k) Prescribe and implement treatment to remedy diseases and abnormalities of animals or prescribe termination of cases, as necessary	✓		✓	✓							
l) Develop and formulate plans and programs for prevention and control of diseases	✓			✓	✓						
m) Design and engage in social entrepreneurial ventures in the field of practice				✓							

NOTE: Minimum PO's shall come from the PSG/CMO of the program if applicable. Other additional PO's may come from consultations with constituents and stakeholders.

COURSE OUTCOMES (CO) Upon passing this course, the students must be able to:		POa	POb	POc	POd	POe	POf	POg	POh	POi	POj	POk	POl	POm	POn	POo	POp	POq	POr	POs	POt	POu	POv	POw	POx	POy	POz
	Course Alignment to Program Outcomes	I							E	I																	
CO 1	Describe the general principles of ruminant production, digestive anatomy and functions of ruminant stomach and differentiate the breeds of ruminants	I							E	I																	
CO 2	Discuss the management practices and production systems of cattle, buffalo, sheep and goats	I						E	E																		

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COURSE OUTCOMES (CO)		POa	POb	POc	POd	POe	POf	POg	POh	POi	POj	POk	POl	POm	POn	POo	POp	POq	POr	POs	POt	POu	POv	POw	POx	POy	POz
Upon passing this course, the students must be able to:	**Course Alignment to Program Outcomes**	I							E	I																	
CO 3	Describe the housing, equipment and facilities for ruminants									I																	
CO 4	Distinguish the different feeds and feeding systems of ruminants	I								E																	
CO 5	Differentiate the herd health management of goat, sheep, buffalo and cattle	I								E																	

*Level(follow the legend used in the most relevant PSG/CMO)
[I]Introductory. This introduces the student to the Program Outcome (PO) [E]Enabling. This enables the student to attain the Program Outcome (PO) [D]Demonstrative. This demonstrates the student's attainment of the Program Outcome (PO)

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience[5], students must be able to:*	Aligned to CO:	Time Frame *(Week)*	Course Content *(Topics)*	Teaching & Learning Activities (TLA) Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
1. Understand the vision and mission of the USM and the goals of CVM; 2. Be familiar with the quality policy statement of the university; 3. Be oriented with the grading system and classroom policies for lecture and laboratory classes; and 2. Be familiar with the coverage of the course, references and additional requirements for the course	CO1	1	Institutional Vision, Mission, Goals and Objectives USM Quality Policy Statement Course Orientation and Introduction Classroom policies and guidelines or lecture and laboratory classes	*Provide link of University VGMO and UQPS to students* Upload course content through VLE Save electronic references and grading system in Google drive and upload links to VLE; Google meeting	Students should access the link and read the University VGMO and UQPS Students should download the electronic references and grading system provided to them through the VLE	Electronic copy of course syllabus Uploaded electronic references and grading system from the VLE	Formative quiz	

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COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience(s), student's must be able to*	Aligned to CO:	Time Frame (Week)	Course Content (Topics)	Teaching & Learning Activities (TLA) Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
			CVM Grading System					
1. Define a ruminant animal; 2. Differentiate a ruminant from non-ruminant animal; 3. Classify ruminant animals; and 4. Enumerate the economic importance of raising ruminant animals	CO_1	2	Characteristics of Ruminant Animals General Features of Ruminant Animals Comparison Between Ruminant and Non-ruminant Animals Classification of Ruminant Animals Economic Values of Ruminants Prospects and Opportunities of Cattle and Goat Farming in the Philippines	Save instructional materials in Google drive and upload link to VLE; Google meeting	Students should download the instructional materials from VLE	Uploaded instructional materials through VLE	Summative quiz Summative exam	[4] Constraints in smallhold cattle operations p. 3 and [5] Constraints in raising goats p. 4
1. Describe the anatomy of ruminant digestive tract; 2. Differentiate the functions of the anatomical structures of ruminant gastrointestinal tract; and 3. Describe digestion of nutrients in different locations of the digestive tract	CO_1	3-4	Digestive Anatomy and Digestion of Ruminants Digestion in the Mouth and Esophagus Digestion in the Stomach Digestion in the Rumen and Reticulum Digestion in the Omasum Digestion in the Abomasum Digestion in the Small Intestine Digestion in the Large Intestine	Save instructional materials in Google drive and upload link to VLE; Google meeting	Students should download the instructional materials from VLE	Uploaded instructional materials through VLE	Summative quiz Summative exam	[2] Digestion and absorption of nutrients in ruminants pp. 170-190
1. Define the term breed 2. Identify the different breeds of ruminants; and	CO_1		Beef Cattle Breeds Braford Brahman	Give instructions to students on their reading activities	Students should read and make a summary of the	Uploaded electronic references and online sources	Summative quiz Summative exam	[4] pp. 13-16; [5] pp. 12-15

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experiences, students must be able to*	Aligned to CO	Time Frame (Week)	Course Content (Topics)	Teaching & Learning Activities (TLA) Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
3. Describe the distinguishing features of the different breeds of ruminant animals		5-6	Brangus Beefalo Devon Hereford French Simmental Limousin Lincoln Red Nelore Red Angus Santa Gertrudis Simmental Droughtmaster Barzona Dairy Cattle Breeds Ayrshire Dutch Belted Guernsey Holstein-Freisian Jersey Multi-purpose Cattle Breeds Red Poll Brown Swiss Charolais Chianina Philippine Native Meat-type Goats Boer Black Bengal Kiko Philippine native	for the different breeds of ruminants	characteristic features of different breeds of ruminants from the electronic references and online sources			

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience, students must be able to*	Aligned to CO:	Time Frame *(Week)*	Course Content *(Topics)*	Teaching & Learning Activities (TLA) Teaching Activities	Teaching & Learning Activities (TLA) Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
			Savanna Dairy Goats Alpine Anglo-Nubian Saanen Toggenburg Lamancha Guernsey Sable Goat Angora Meat-type Sheep Breeds Dorper Sheep Dorset Horn Southdown Aussiedown Afrikaner Other Breeds of Sheep Border Leicester Ramboillet Merino Suffolk Cheviot Lincoln Buffalo Breeds Australian Buffalo Kundi Murrah Nili-Ravi Malaysian Buffalo Deer Family Cervinae					

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame (Week)	Course Content (Topics)	Teaching & Learning Activities (TLA) Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
			Capreolinae Camelids Llama Guanacos Alpaca Suri Vicuña					
1. Familiarize the management practices for breeding cattle (bull, cow, heifer), goat (buck, doe) and sheep (ram, ewe); 2. Identify and describe the mating systems for cattle, goat and sheep; 3. Familiarize the signs of estrus and reproductive cycles of cattle, goat and sheep; 4. Describe the management practices for a pregnant cow, doe and ewe including the management of cow, doe and ewe during parturition; and 5. Discuss the management practices for a calf, kid and lamb from birth to growing stage	CO_2	7-8	Management of Cattle Breeding Stock Management of a Breeding Bull Management of a Breeding Cow or Heifer Mating System Management of Pregnant Cow Parturition or Calving in Cattle Management of Calf Management of Sheep and Goat Breeding Stock Management of Male Sheep Management of Buck Management of Female Sheep or Ewe Management of Female Goats or Doe Management of Pregnant Ewe and Doe Lambing or Kidding Management of Lamb/Kid	Save instructional materials in Google drive and upload link to VLE; Google meeting	Students should download the instructional materials from VLE	Uploaded instructional materials through VLE	Summative Quiz Summative Exam	[4] pp. 8-9; pp. 52-53 [5] pp. 18-19; pp. 34-35; pp. 28-29

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience s, students must be able to*	Aligned to CO:	Time Frame *(Week)*	Course Content *(Topics)*	Teaching & Learning Activities (TLA) Teaching Activities	Teaching & Learning Activities (TLA) Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
			Management of Growing Sheep/Goats					
All ILOs covered in Midterm		**9**	**MIDTERM EXAMINATION**					
1. Identify and describe the types of housing for cattle, goat and sheep; 2. Familiarize the space requirements, and specifications for the types of housing for cattle, goat and sheep; 3. Identify the equipment and facilities used for ruminant production; and 4. Describe the uses of the different equipment and facilities for ruminant production	CO_3	**10-11**	Housing for Cattle Production Housing Requirement for Cattle Production Housing for Intensive System of Cattle Production Housing for Extensive System of Cattle Production Housing for Sheep and Goat Production Housing for Sheep and Goat Housing Type for Sheep and Goat Under Intensive/ Semi-intensive System Housing Type for Extensive/Traditional System of Sheep and Goa Equipment Used in Ruminant Production	Save instructional materials in Google drive and upload links to VLE	Students should download the instructional materials from VLE	Uploaded instructional materials through VLE	Summative quiz Summative exam	[4] pp. 55-66 [5] pp. 40-46
1. Familiarize the feeding principles for cattle, goat and sheep; 2. Classify the different nutrients and describe the feeding requirements of cattle, goat and sheep;	CO_4		Feeding Principles for Ruminant Animals Nutrient Requirements and Feeding of Ruminants	Save instructional materials in Google drive and upload links to VLE	Students should download the instructional materials from VLE	Uploaded instructional materials through VLE	Summative quiz Summative exam	[4] pp. 31-42 [5] pp. 56-64

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to	Aligned to CO:	Time Frame (Week)	Course Content (Topics)	Teaching & Learning Activities (TLA) Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
3. Identify and describe the pasture grasses, forages, crop residues and agro-industrial by-products for cattle, goat and sheep; and 4. Describe the feeding systems for cattle, goat and sheep		12-14	Energy and Protein Requirement for Cattle Energy and Protein Requirement for Sheep Energy and Protein Requirement for Goats Mineral Requirements Feeding Resources for Ruminants Pasture Grasses Forages Crop Residues Agro-Industrial By-products Feeding Systems for Ruminants					
1. Classify the various diseases affecting cattle and goats/sheep; 2. Identify the causative agents of diseases affecting cattle and goats/sheep; 3. Describe the transmission and clinical signs of diseases which affect cattle and goats/sheep; 4. Identify the veterinary drugs for treatment and prevention of diseases of cattle and goat/sheep; and		15-17	Diseases and Parasites of Ruminants Viral and Arthropod-borne Diseases of Cattle Foot and Mouth Disease Rabies Ephemeral Fever Warts Piroplasmosis	Save instructional materials in Google drive and upload links to VLE	Students should download the instructional materials from VLE	Uploaded instructional materials through VLE	Summative quiz Summative exam	[4] pp. 68-92 [5] pp. 66-84

UNIVERSITY OF SOUTHERN MINDANAO

Course Number	Zootech 226	Course Title	Ruminant Production and Herd Health Management	Rev. No.	2	Pages

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience[1], students must be able to:*	Aligned to CO:	Time Frame (Week)	Course Content *(Topics)*	Teaching & Learning Activities (TLA) Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Sugge Readi
5. Describe the control measures against diseases that usually affect cattle and goats/sheep			Anaplasmosis Bacterial Diseases of Cattle Hemorrhagic Septicemia Leptospirosis Foot Rot Tetanus Genital Camphylobacteriosis Anthrax Blackleg Bovine Tuberculosis Brucellosis Colibacillosis Johne's Disease Parasitic Diseases of Cattle External Parasites of Cattle Cattle Scrub, Mange or Itch Pediculosis Myiasis-infestation by Dipterous Tick Fever Fly Worry Ringworm Internal Parasites					

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience, students must be able to*	Aligned to CO:	Time Frame *(Week)*	Course Content *(Topics)*	Teaching & Learning Activities (TLA) Teaching Activities	Teaching & Learning Activities (TLA) Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
			Liverfluke Infection Lungworm Infestation Stomach and Intestinal Parasitism Common Infectious Diseases of Goats/Sheep Brucellosis CAE Caseous Lymphadenitis Enterotoxemia Foot and Mouth Disease Foot Rot Infectious Arthritis Mastitis Orf Pasteurella Pneumonia Pinkeye Tetanus Common Parasitic Diseases of Goats/Sheep Coccidiosis Fasciolosis Gastrointestinal Nematodosis Lice Infestation Mange or Scabies					

AREA II: | FACULTY

COURSE LEARNING PLAN

Intended Learning Outcomes (ILO) *By the end of the learning experience*, students must be able to:*	Aligned to CO:	Time Frame (Week)	Course Content (Topics)	Teaching & Learning Activities (TLA) Teaching Activities	Learning Activities	Learning Materials	Assessment Tasks (AT)	Suggested Readings
All ILOs covered in the Course		**18**	**FINAL EXAMINATION**					

** any interaction, course, program, or other experience in which learning takes place (https://www.edglossary.org/learning-experience/).*

Textbook/References

[1] Dairo, F.A.S., Afolabi, A. & Sanusi, J. (2011). *Ruminant animal production.* National Open University of Nigeria;
[2] McDonald, P. Edwards, R. A., Greenhalgh, J.F.D., Morgan, C. A., Sinclair, L. A. & Wilkinson, R. G. 2010. *Animal nutrition,* 7th Edn. Prentice Hall (Electronic copy);
[3] Payne, W.J.A. & Wilson, R.T. (1999). *Animal husbandry in the tropics,* 5th Edn. Blackwell Science;
[4] PCARRD-DOST (2008). The Philippines Recommends for Beef Cattle Production; and
[5] PCARRD-DOST (2011). The Philippines Recommends for Goat Farming.

Life-long Learning Opportunity

Course Evaluation

Course Outcomes (CO)	Assessment Task Addressing CO	Weight (%)	Satisfactory Rating	Target Standard
CO 1: Describe the general principles of ruminant production, digestive anatomy and functions of ruminant stomach and differentiate the breeds of ruminants	Summative quiz	7	75%	60% of the class obtained a rating of at least 4 and/or a score of 75
	Summative exam	13		
CO 2: Discuss the management practices and production systems of cattle, buffalo, sheep and goats	Summative quiz	5	75%	60% of the class obtained a rating of at least 4 and/or a score of 75
	Summative exam	10		
	Laboratory activity	5		
CO 3: Describe the housing, equipment and facilities for ruminants	Summative quiz	5	75%	60% of the class obtained a rating of at least 4 and/or a score of 75
	Summative exam	10		
	Laboratory activity	5		
CO 4: Distinguish the different feeds and feeding systems of	Summative quiz	5	75%	60% of the class obtained a rating of at least 4 and/or a score of 75
	Summative exam	10		

AREA II: | FACULTY

Course Evaluation

Course Outcomes (CO)	Assessment Task Addressing CO	Weight (%)	Satisfactory Rating	Target Standard
ruminants	Laboratory activity	5		
CO 5: Differentiate the herd health management of goat, sheep, buffalo and cattle	Summative quiz	5	75%	60% of the class obtained a rating of at least 4 and/or a score of 75
	Summative exam	10		
	Laboratory activity	5		

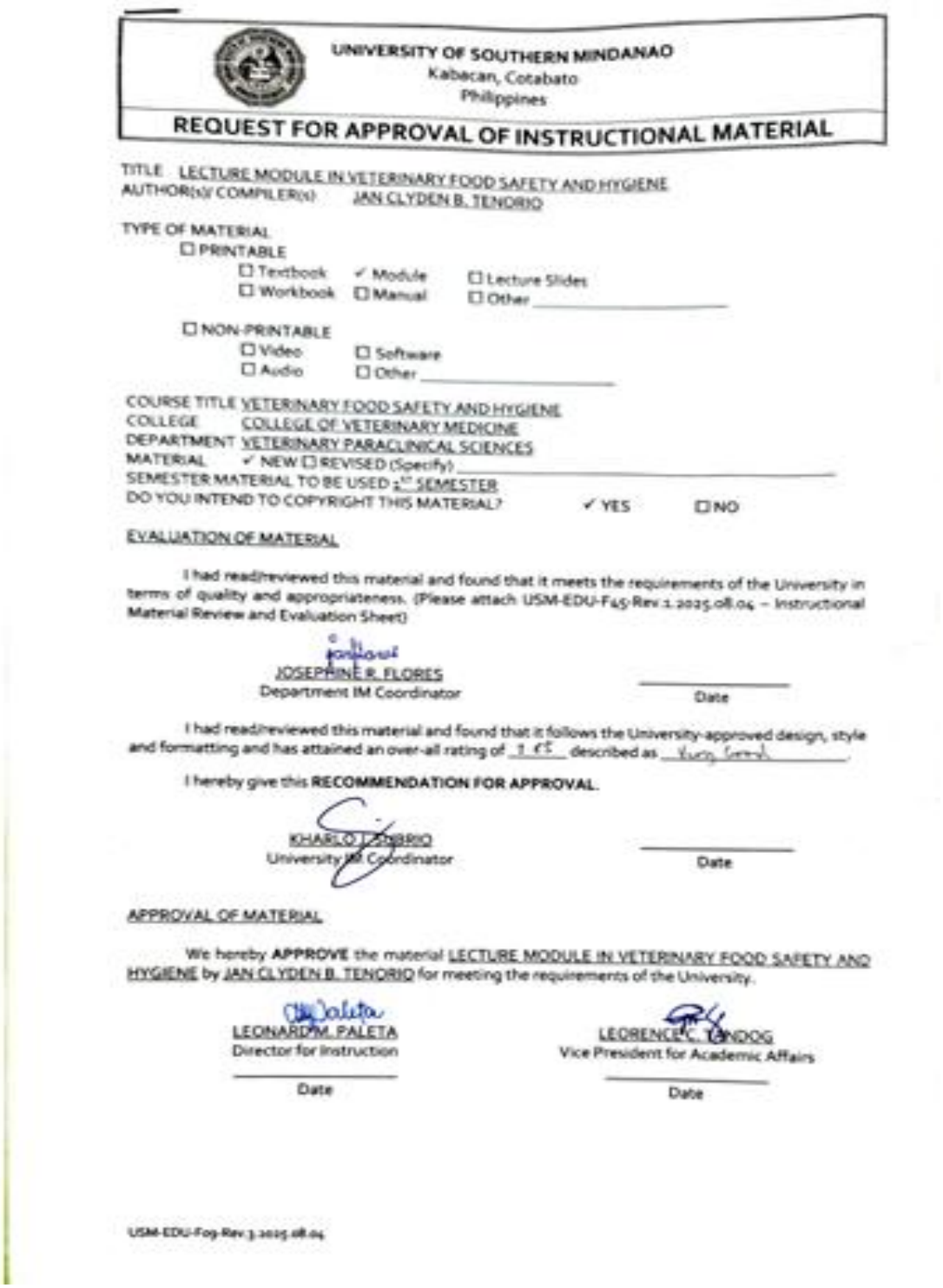
Grading System

1. The University grading system shall be adopted, where the term grade shall constitute 33% of the grade for quizzes and 67% for the term examinations.
2. The term grade shall constitute 100% of the lecture grade.
3. The final grade shall constitute 33% of the mid-term grade and 67% of the final term grade.
4. Passing percentage in any examination is 75% with an equivalent grade of 3.0
5. Evaluation of the student's performance will be based on the results of the quizzes, mid-term examination, final examination and laboratory activities and other requirements, if any.
6. The laboratory grade constitutes 30% of the final grade

Classroom Policies

1. Regular attendance to lecture/online class
2. Participation in class and laboratory activities
3. Pass summative quizzes and term examinations
4. Submission of additional requirements

F.2. SAMPLES OF INSTRUCTIONAL MATERIALS DEVELOPMENT AND PRODUCED BY THE FACULTY (WORKBOOK, MANUAL, MODULE, ICT MATERIALS ETC.)



UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato
Philippines

REQUEST FOR APPROVAL OF INSTRUCTIONAL MATERIAL

TITLE: LECTURE MODULE IN VETERINARY FOOD SAFETY AND HYGIENE
AUTHOR(s)/ COMPILER(s): JAN CLYDEN B. TENORIO

TYPE OF MATERIAL
☐ PRINTABLE
☐ Textbook ✓ Module ☐ Lecture Slides
☐ Workbook ☐ Manual ☐ Other _____
☐ NON-PRINTABLE
☐ Video ☐ Software
☐ Audio ☐ Other _____

COURSE TITLE: VETERINARY FOOD SAFETY AND HYGIENE
COLLEGE: COLLEGE OF VETERINARY MEDICINE
DEPARTMENT: VETERINARY PARACLINICAL SCIENCES
MATERIAL: ✓ NEW ☐ REVISED (Specify) _____
SEMESTER MATERIAL TO BE USED: 1ST SEMESTER
DO YOU INTEND TO COPYRIGHT THIS MATERIAL? ✓ YES ☐ NO

EVALUATION OF MATERIAL

I had read/reviewed this material and found that it meets the requirements of the University in terms of quality and appropriateness. (Please attach USM-EDU-F45-Rev 1 2025.08.04 – Instructional Material Review and Evaluation Sheet)

JOSEPHINE R. FLORES
Department IM Coordinator — Date

I had read/reviewed this material and found that it follows the University-approved design, style and formatting and has attained an over-all rating of 1.45 described as Very Good.

I hereby give this **RECOMMENDATION FOR APPROVAL.**

KHARLO T. TENORIO
University IM Coordinator — Date

APPROVAL OF MATERIAL

We hereby **APPROVE** the material LECTURE MODULE IN VETERINARY FOOD SAFETY AND HYGIENE by JAN CLYDEN B. TENORIO for meeting the requirements of the University.

LEONARDO M. PALETA
Director for Instruction
Date

LEORENCE C. TANDOG
Vice President for Academic Affairs
Date

USM-EDU-F09-Rev 3 2025.08.04

UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato
Philippines

REQUEST FOR APPROVAL OF INSTRUCTIONAL MATERIAL

TITLE LABORATORY MANUAL IN VETERINARY FOOD SAFETY AND HYGIENE
AUTHOR(S)/ COMPILER(S) JAN CLYDEN B. TENORIO

TYPE OF MATERIAL

☐ PRINTABLE

☐ Textbook ✓ Module ☐ Lecture Slides
☐ Workbook ☐ Manual ☐ Other _____

☐ NON-PRINTABLE

☐ Video ☐ Software
☐ Audio ☐ Other _____

COURSE TITLE VETERINARY FOOD SAFETY AND HYGIENE
COLLEGE COLLEGE OF VETERINARY MEDICINE
DEPARTMENT VETERINARY PARACLINICAL SCIENCES
MATERIAL ✓ NEW ☐ REVISED (Specify) _____
SEMESTER MATERIAL TO BE USED 1ST SEMESTER
DO YOU INTEND TO COPYRIGHT THIS MATERIAL? ✓ YES ☐ NO

EVALUATION OF MATERIAL

I had read/reviewed this material and found that it meets the requirements of the University in terms of quality and appropriateness. (Please attach USM-EDU-F45-Rev.1.2015.08.04 – Instructional Material Review and Evaluation Sheet)

JOSEPHINE R. FLORES
Department IM Coordinator

_____
Date

I had read/reviewed this material and found that it follows the University-approved design, style and formatting and has attained an over-all rating of 5.00 described as Very good

I hereby give this **RECOMMENDATION FOR APPROVAL**.

KHARLO T. SABRIO
University IM Coordinator

_____
Date

APPROVAL OF MATERIAL

We hereby **APPROVE** the material LABORATORY MANUAL IN VETERINARY FOOD SAFETY AND HYGIENE by JAN CLYDEN B. TENORIO for meeting the requirements of the University.

LEONARD M. PALETA
Director for Instruction

_____
Date

LEORENCE C. TANDOG
Vice President for Academic Affairs

_____
Date

UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato
Philippines

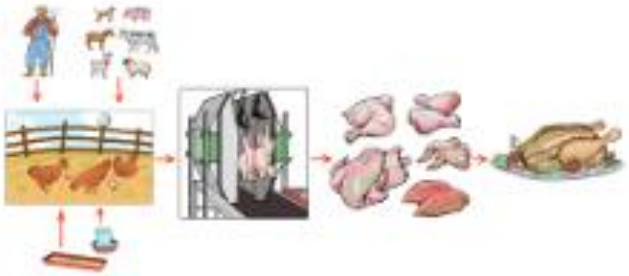
INSTRUCTIONAL MATERIAL REVIEW CHECKLIST

MINIMUM REQUIREMENTS Criteria 3: Design, Style And Formatting	YES	NO	N/A	Remarks
4. Paper Size				
a. A4 paper size is used.	✓			
b. Orientation is set to portrait.	✓			
5. Font Style				
a. The font styles used are Arial, Calibri and/or Corbel.	✓			
b. A maximum of two font styles is used per page of the IM, one for the title/ subheading and another for the body.	✓			
c. Bold, italicized or underlined font styles is used for title and subheadings and occasionally for the body only for emphasis.	✓			
6. Font Size				
For textbook, module, manual and workbook:				
a. the font size used for the title is 16				
b. the font size used for the subheadings is 14				
c. the font size used for the body is 12				
d. For lecture slides, the font size is not lower than 32				
7. Font and Background Color				
For printable materials:				
a. maximum of two font colors is used per page				
b. black is the dominant font color	✓			
c. white is dominant background color	✓			
d. Lecture slides uses font colors for each slide that highly contrasts the background color (dark font over light background or vice versa).	✓			
8. Line Spacing				
For printable materials:				
a. All lines of texts for the body is single-spaced				
b. Text spacing for the cover and title page, chapter title and subheadings follows as prescribed in the example shown in the appendices (see Appendix)				
For lecture slides:				
c. contain at most 10-15 lines of texts per slide including the title/subheading	✓			
d. does not exceed 40 slides for every 1-hour length of presentation	✓			
9. Paragraph Alignment				
a. All paragraphs is set to Justify.				
b. IM Title and Chapter Title is center-aligned				
c. Subheadings is left-aligned				
10. Pagination and Margination				
a. Each page except the cover and title page is assigned a page number located at the center of the footer.				
b. Page numbers in the preliminary pages is in lowercase				

LABORATORY MANUAL IN

VETERINARY FOOD SAFETY AND HYGIENE

VM MICRO 06



JAN CLYDEN B. TENORIO

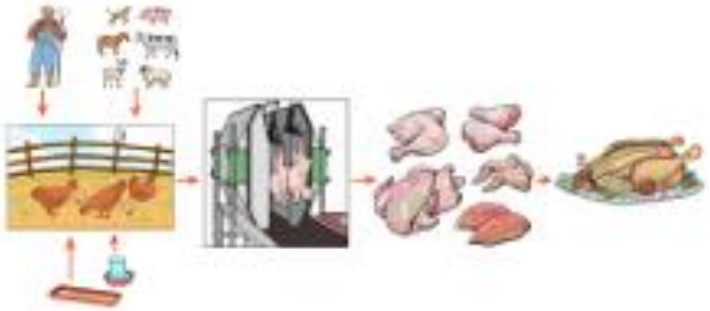
2026

UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato

Tenorio_Laboratory Manual.pdf

VETERINARY FOOD SAFETY AND HYGIENE

VM MICRO 06



JAN CLYDEN B. TENORIO

2026

UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato

Tenorio_Lecture Module.pdf

LECTURE SLIDES

IN

VETERINARY CLINICAL PHARMACOLOGY

(Vet Pharma 322)

by:

GARRY D. LASAGA

2022

UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato

1

Course description

- This course deals with the fundamental concepts that govern Veterinary Pharmacology. It shall deal with the description, preparations, indications, pharmacodynamics, pharmacokinetics, and adverse effects of drugs in Veterinary Medicine. This is done through discussion of the different drugs by family or group.

2

3

Main Concepts

- Most drugs are **weak organic acids or bases** and exist in solution as BOTH IONIZED and NONIONIZED forms.
- **Nonionized form** is usually MORE lipid soluble and can readily cross cell membrane.
- **Ionized form** is usually LESS lipid soluble and is often excluded from transmembrane diffusion.

4

IONIZED	NONIONIZED
Less lipid-soluble	Highly lipid-soluble
Less lipophilic	More lipophilic
Hydrophilic	Hydrophobic

5

IONIZATION	Solubility	Lipid Membrane
Ionized	Water soluble	Do not cross
Un-ionized	Water insoluble	Can cross

6

F.3. COMPOSITION AND PROFILE OF THE INSTRUCTIONAL MATERIALS DEVELOPMENT COMMITTEE

Copy of the Instructional Materials Development Committee which is composed of dedicated faculty members specializing in curriculum design, teaching strategies, and subject expertise

Republic of the Philippines
UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato
Tel No. 63 (64) 572 - 2138
email address: op@usm.edu.ph
OFFICE OF THE PRESIDENT

Special Order No. 149
Series of 2022

TO:

DR. GEOFFRAY R. ATOK	*- Chairperson*
DR. ELSA A. GONZAGA	*- Member*
DR. MA. LEZEL P. PATARAY	*- Member*
DR. MERIAM M. RUBIO	*- Member*
DR. LAWRENCE ANTHONY U. DOLLENTE	*- Member*
PROF. EUGENE G. RANJO	*- Member*
ENGR. KHARLO J. SUBRIO	*- Member*
PROF. SUSAN S. MARTINEZ	*- Member*
PROF. JP E. FORTINEZ	*- Member*
PROF. PIA AMABELLE M. FLORES	*- Member*
PROF. ALLAN C. FACURIB	*- Member*

SUBJECT: **COMPOSITION OF THE UNIVERSITY INSTRUCTIONAL MATERIALS DEVELOPMENT REVIEW COMMITTEE**

DATE: **Friday, March 11, 2022**

Taking cognizance of your educational preparation and most of all your interest to lead the department that would promote morale, efficiency and integrity, responsiveness, and courtesy in your unit and institutionalize a management climate conducive to public trust and accountability in consonance with existing laws and regulations, your are hereby constituted to compose the **UNIVERSITY INSTRUCTIONAL MATERIALS DEVELOPMENT REVIEW COMMITTEE** in addition to your plantilla position.

As such, you shall exercise the duties and functions inherent to your designated position to the best of your ability. Expectedly, you shall provide the leadership that would promote morale, efficiency and integrity, responsiveness, and courtesy in your unit and institutionalize a management climate conducive to public trust and accountability in consonance with existing laws and regulations.

Republic of the Philippines
UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato
Tel No. 63 (64) 572 - 2138
email address: op@usm.edu.ph
OFFICE OF THE PRESIDENT

This order shall remain in force and in effect on March 8, 2022 until otherwise sooner revoked by the undersigned or any competent authority. All issuances that are inconsistent with any of the provisions hereof are deemed revoked, amended or superseded.

FRANCISCO GIL N. GARCIA, ABE, PhD
SUC President IV

By Authority of the President:

WILLIE JONES B. SALILING, ABE, EnP
HRMDO Director

Conforme:

_____

Copy Furnished
___ records
___ HRMDO(101 file
___ File
___ COA file
___ Board Secretary

AREA II: | FACULTY

F.4. FACULTY WHO SERVED AS LECTURER, RESOURCE PERSON, CONSULTANT IN HIS/HER FIELD OF SPECIALIZATION AS WELL AS IN ALLIED DISCIPLINES.

Attached are supporting documents to provide evidence of their participation in various academic, training, and consultancy activities, highlighting their contributions to institutional growth and external linkages.

Republic of the Philippines
Central Mindanao University
University Town, Maramag Bukidnon

CERTIFICATE OF APPRECIATION

IS AWARDED TO

Dr. Roland Yap Fajardo

In grateful recognition of their invaluable support and active participation as a **Speaker** in the **21st National Congress of Veterinary Medicine Students (NCVMS)** with a theme: *"Maayad ha Pag Uma! Panaghiusa Ngadto sa Kalambuan sa Propesyong Beterinaryo"* held on **February 2-7, 2025**, at the **College of Veterinary Medicine, Central Mindanao University (CMU-CVM), Musuan, Mamarag, Bukidnon.**

Given this 3rd day of February 2025 at the Central Mindanao University - University Convention Center, Musuan, Maramag, Bukidnon.

DIR. JHAYBONE MARK C. TORRES
21ST NCVMS National Director

DR. JOSE M. OBEDENCIO JR.
CMU-CVM Dean

DR. PHILIP JOHN S. SAJOL
21ST NCVMS Adviser

DR. CATHERINE T. ALBANO
21ST NCVMS Adviser

Republic of the Philippines
Department of Agriculture
AGRICULTURAL TRAINING INSTITUTE
Regional Training Center XII
Brgy. San Felipe, Tantangan, South Cotabato
Tel. No. (+63) 083 229-1024 Fax No. (+63) 083 229-1023
E-mail Address: rtc12.dcc@ati.da.gov.ph
URL: http://ati.da.gov.ph/ati-12

awards this

CERTIFICATE OF APPRECIATION

to

ROLAND Y. FAJARDO, DVM

in grateful appreciation for his/her time and effort rendered as Resource Person during the **Honey-to-Money: Training of Trainers on Beekeeping (Stingless bees) for the Livestock Coordinator and LSA Cooperators in Region XII and BARMM** held on April 21-25, 2025 at ATI- RTC XII, San Felipe, Tantangan, South Cotabato.

Given this 22nd day of April 2025.

JESSIE V. BELDIA, Ph.D.
OIC-Center Director

CATALYST
CAPACITY BUILDER
KNOWLEDGE BANK

TMIS Activity Code: ATI-12-ISS-F3PWM
Date of Issuance: April 22, 2025
NLP Code: 2025- SPEAKER

Trunkline: (083) 229 1024
Website: ati.da.gov.ph/ati-12
Email: rtc12.dcc@ati.da.gov.ph
@atirtc12

Republic of the Philippines
Department of Agriculture
AGRICULTURAL TRAINING INSTITUTE
Regional Training Center XII
Brgy. San Felipe, Tantangan, South Cotabato
Tel. No. (+63) 083 229-1024 Fax No. (+63) 083 229-1023
E-mail Address: rtc12.dcc@ati.da.gov.ph
URL: http://ati.da.gov.ph/ati-12

BAGONG PILIPINAS

awards this

CERTIFICATE OF APPRECIATION

to

ROLAND Y. FAJARDO, DVM, MSc.

in grateful appreciation for his/ her time and effort rendered as **Resource Person** during the **Training on Animal Health Care and Management (AHCM) for the Agricultural Extension Workers of Region XII and BARMM** held on May 19-23, 2025 at ATI- RTC XII, San Felipe, Tantangan, South Cotabato.

Given this 20th day of May 2025.

JESSIE V. BELDIA, Ph.D.
OIC-Center Director

CATALYST
CAPACITY BUILDER
KNOWLEDGE BANK

TMIS Activity Code: ATI-12-ISS-[illegible]
Date of Issuance: May 20, 2025
NLP Code: 2025 - SPEAKER
CPD Reg. No.: AGR-2019-023-387 (1 point)

Trunkline: (083) 229 1024
Website: ati.da.gov.ph/ati-12
Email: rtc12.dcc@ati.da.gov.ph

Republic of the Philippines
Department of Agriculture
AGRICULTURAL TRAINING INSTITUTE
Regional Training Center XII
Brgy. San Felipe, Tantangan, South Cotabato

Awards this

CERTIFICATE OF APPRECIATION

to

ROLAND Y. FAJARDO, DVM, MSc.

In grateful appreciation and acknowledgment for sharing his valuable knowledge and expertise as **Resource Person** during the **Honey-to-Money: Training on Beekeeping (stingless bees) *Meliponula ferruginea* for the Coconut-LSA i Region XII and BARMM** held on December 4-6, 2024 at ATI-RTC XII, San Felipe, Tantangan, South Cotabato.

Given this 6th day of December 2024.

JESSIE V. BELDIA, Ph.D.
OIC Center Director

CATALYST
CAPACITY BUILDER
KNOWLEDGE BANK

TMIS Activity Code: ATI-12-PASS-RAGON
Program Accreditation No.: AGR-2019-023-None
Credit Unit: None
Date of Issuance: December 6, 2024
NLP Code: 2024-SPEAKER

Trunkline: Website: Email: @atirtc12

PHILIPPINE VETERINARY MEDICAL ASSOCIATION

presents this

CERTIFICATE OF ATTENDANCE

to

Dr. Roland Y. Fajardo

for having attended the
92nd PVMA Scientific Conference and Annual Convention
held on February 19-21, 2025 at SMX Convention Center, Lanang, Davao.

Jerry V. Alcantara, DVM
PVMA – Vice-President
Convention Chair

Harris G. Constantino, DVM
PVMA - President

Mark Joseph M. Desamero, DVM
PVMA – Secretary

INGAT HAYOP ROADSHOW

CERTIFICATE OF PARTICIPATION

is awarded to

ROLAND Y. FAJARDO

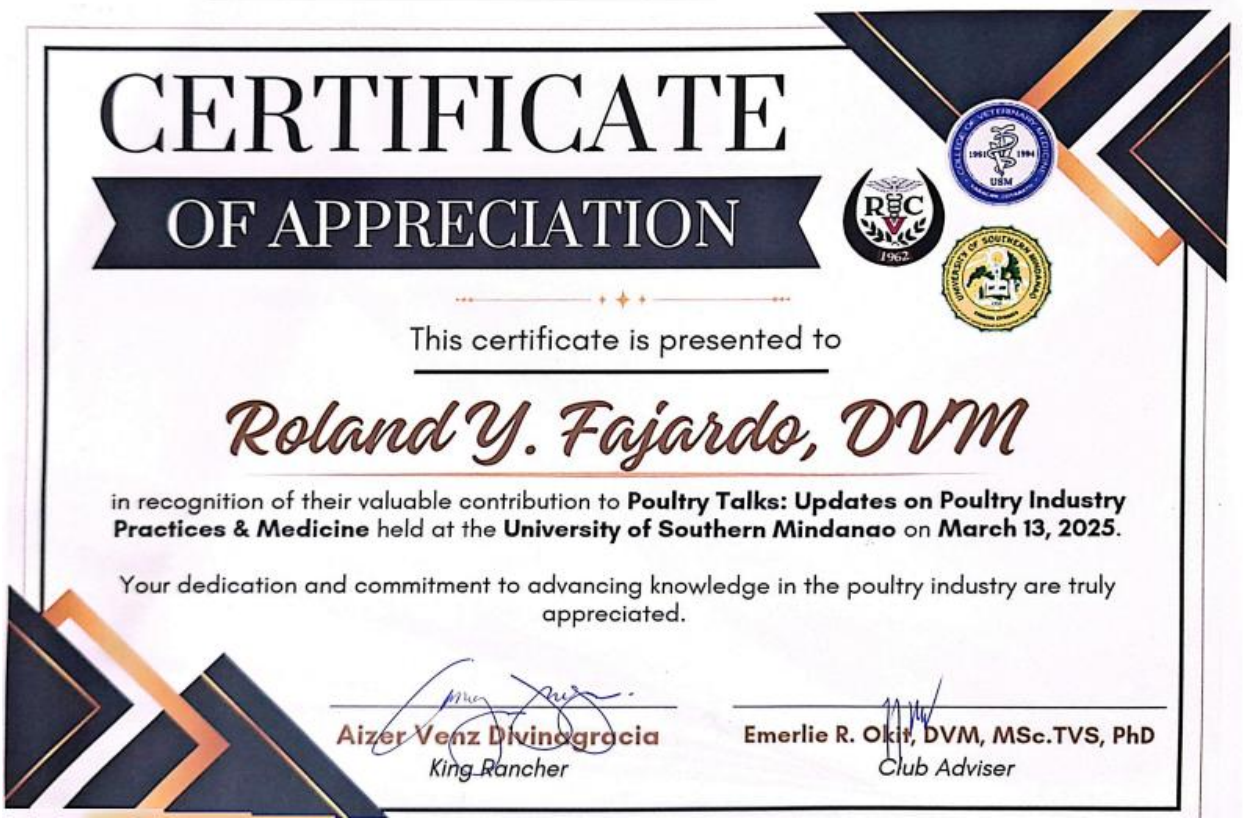
for actively participating during the **Ingat Hayop Roadshow: A Regional Campaign and Awareness Seminar for Avian Influenza and African Swine Fever,** organized by the SOCCSKSARGEN Agriculture, Aquatic, and Natural Resources Research and Development Consortium (SOXAARRDEC) in collaboration with the University of Southern Mindanao (USM).

Given this 6th day of March 2025, at USMARDC Auditorium, University of Southern Mindanao, Kabacan, Cotabato

Digitally signed by Pimentel Jonald Lozarito

JONALD L. PIMENTEL, PhD
President, University of Southern Mindanao

JULIUS JEROME G. ELE, PhD
Consortium Director, SOXAARRDEC



CERTIFICATE

OF APPRECIATION

This certificate is presented to

Roland Y. Fajardo, DVM

in recognition of their valuable contribution to **Poultry Talks: Updates on Poultry Industry Practices & Medicine** held at the **University of Southern Mindanao** on **March 13, 2025.**

Your dedication and commitment to advancing knowledge in the poultry industry are truly appreciated.

Aizer Venz Divinagracia
King Rancher

Emerlie R. Okit, DVM, MSc.TVS, PhD
Club Adviser

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
AGRICULTURAL TRAINING INSTITUTE

INTERNATIONAL TRAINING CENTER ON PIG HUSBANDRY
Marawoy, Lipa City

presents this

Certificate of Recognition

to

Dr. Roland Y. Fajardo

for imparting his valuable knowledge and expertise as the panelist at the

2024 Agri-Research Colloquium

held on October 24, 2024 at Agricultural Training Institute-International Training Center on Pig Husbandry, Marawoy, Lipa City Batangas

Given this 24th day of October 2024
at the City of Lipa, Province of Batangas, Philippines.

RUTH S. MICLAT-BONAGO, DVSM
Center Director

ITCPH LIPA

ISO 9001:2015
Certificate Registration No. TUV100 05 3040/7

OUR VISION

"The emergence of dynamic and self-sustaining rural communities of organized pig farmers doing profitable business in a globally competitive environment."

OUR MISSION

"To be known as a center of Excellence in practical training and information dissemination on pig technology in Southeast Asia and Pacific Region."

PHILIPPINE VETERINARY MEDICAL ASSOCIATION
Southern Mindanao Chapter, Inc.

CERTIFICATE OF ATTENDANCE

is presented to

ROLAND Y FAJARDO, DVM

For having attended the 43rd Regional Convention of the
Philippine Veterinary Medical Association, Southern Mindanao Chapter, Inc.
on September 19 – 20, 2024 at the San Josue (SJ) Resort, Santan Cor. Orchid St.,
Punad Vill., Mamay, Brgy. Anglionto, Buhangin, Davao City, Davao del Sur

MORIEL S. DE LOS SANTOS
Secretary
PVMA - South Mindanao

FERNANDO G. EDULLANTES, JR., DVM
Vice-President
PVMA - South Mindanao

GLAIZA L. FLORA, DVM
President
PVMA - South Mindanao

REPUBLIC OF THE PHILIPPINES
REGION XII
PROVINCE OF COTABATO
OFFICE OF THE MUNICIPAL AGRICULTURIST
MUNICIPALITY OF PIKIT

Certificate of Appreciation

IS PROUDLY PRESENTED TO

PRECIOUS AMOR BESO, MSAS

for sharing her valuable time and expertise as a Resource Speaker during the **TRAINING ON BALUT AND SALTED EGG MAKING** held at Barangay Ladtingan, Pikit, Cotabato on August 25, 2022.

Given this 25th day of August 2022, at Barangay Ladtingan, Pikit, Cotabato

GAPHOR P. SULIEK, LAGR
MUNICIPAL AGRICULTURIST

HON. SUMULONG K. SULTAN
MAYOR

Republic of the Philippines
Region XII
Province of Cotabato
OFFICE OF THE MUNICIPAL AGRICULTURIST
Municipality of Pikit

CERTIFICATE OF APPRECIATION

is given to

PRECIOUS AMOR BESO, MSAS

For sharing her valuable time and expertise as a Resource Speaker during the **TRAININF ON FREE-RANGE CHICKEN PRODUCTION** held at Barangay Poblacion, Pikit, Cotabato on November 25, 2020.

Given this 25th day of November 2020, at Barangay Poblacion, Pikit, Cotabato.

PEDRO ELORDE B. BINOYA, PhD
Municipal Agriculturist

Hon. SUMULONG K. SULTAN
Municipal Mayor





Certificate of Appreciation

award this certificate to

PRECIOUS AMOR A. BESO

Panelist
Livestock and Poultry Session

for sharing his/her invaluable time and service that leads to the success of the **17th National Organic Agriculture Congress (NOAC)** with the theme,"***Maunlad na Pagsasaka, Garantisado sa Organikong Agrikulturang Sinaliksik***" on March 20 - 24, 2023 at the University of Southern Mindanao, Kabacan, Cotabato, Philippines.

Given this 24th day of March 2023 in Kabacan, Cotabato, Philippines.

FRANCISCO GIL N. GARCIA, ABE, PhD
SUC President IV, USM

MARY JOY CANOLAS, PhD
Vice Chairperson, NOAC-USM