



# **Kasetsart University**

2017 Syllabus

Clinical Practice in Farm Animals

Clinical Practice in Farm Animals II

Clinical Practice in Microbiology II

Clinical Practice in Epidemiology

Clinical Practice in Large Animals

Clinical Practice in Ruminants and Wildlife

Special Clinical Practice in Small Animal

Course Title	Clinical Practice in Farm Animals				
Type	Exercise, Clinical Practices	Number of credits	6	Hours	180
Course Instructor	Pariwat POOLPERM, Nattavut RATTANAVANIJROTE, Pichai JIRAWATTANAPONG, Narin UPRAGARIN, Kriangkrai WITOONSATHIEN, Visanu BOONYAWIWAT, Natthana THITICHAYAPONG				
Course Overview:					
Practice in farm visiting, production and health monitoring, clinical examination, diagnosis, treatment and preventive medicine in farm animals, emphasizing on swine, poultry and aquatic animals.					
Course Goals:					
<ol style="list-style-type: none"> <li>1. To be able to gather information from history taking from farm owners</li> <li>2. To be able to plan a diagnostic scheme and further investigations</li> <li>3. To be able to do necropsy and make differential diagnosis based on lesions</li> <li>4. To be able to interpret laboratory results and make a conclusion of the clinical cases and explain to the owner</li> <li>5. To be able to explain an overview of management and medical suggestions to the owner, in the sense of preventing diseases in the future</li> </ol>					
Course Schedule:					
Week #:					
1: Introduction to Clinical Practice in Farm Animals					
2-5: Clinical practice in pigs: basic farm and health management, farm visit, necropsy and diagnosis					
6-9: Clinical practice in poultry: basic farm and health management, farm visit, necropsy and diagnosis					
10-11: Clinical practice in fishes: basic farm and health management, farm visit, necropsy and diagnosis					
12-13: Clinical practice in shrimp: basic farm and health management, farm visit, necropsy and diagnosis					
14-15: Practice Discussion and Presentation					
15: Examination					
Remarks:					

Course Title	Clinical Practice in Farm Animals 2				
Type	Exercise, Clinical Practices	Number of credits	2	Hours	60
Course Instructor	Pariwat POOLPERM, Nattavut RATTANAVANIJROTE, Pichai JIRAWATTANAPONG, Narin UPRAGARIN, Kriangkrai WITOONSATHIEN, Visanu BOONYAWIWAT, Natthana THITICHAYAPONG				
Course Overview:					
Practice in farm visiting, production and health monitoring, clinical examination, diagnosis, treatment and preventive medicine in farm animals, emphasizing on swine, poultry and aquatic animals.					
Course Goals:					
<ol style="list-style-type: none"> <li>1. To be able to gather information from history taking from farm owners</li> <li>2. To be able to plan a diagnostic scheme and further investigations</li> <li>3. To be able to do necropsy and make differential diagnosis based on lesions</li> <li>4. To be able to interpret laboratory results and make a conclusion of the clinical cases and explain to the owner</li> <li>5. To be able to explain an overview of management and medical suggestions to the owner, in the sense of preventing diseases in the future</li> </ol>					
Course Schedule:					
Week #:					
1: Introduction to Clinical Practice in Farm Animals					
2-5: Clinical practice in pigs: basic farm and health management, farm visit, necropsy and diagnosis					
6-9: Clinical practice in poultry: basic farm and health management, farm visit, necropsy and diagnosis					
10-11: Clinical practice in fishes: basic farm and health management, farm visit, necropsy and diagnosis					
12-13: Clinical practice in shrimp: basic farm and health management, farm visit, necropsy and diagnosis					
14-15: Practice Discussion and Presentation					
15: Examination					
Remarks:					

Course Title	Clinical Practice in Microbiology II				
Type	Exercise, Clinical Practices	Number of credits	1	Hours	-
Course Instructor	Porn Tippa LEKCHAROENSUK, Kunyarat THUENG-IN, Win SURACHETPONG				
Key words:					
Sample collection and handling, diagnostic virology and serology, laboratory analysis and interpretation, human and animal health.					
Course Overview:					
Clinical practice in Microbiology. Knowledge integration of sample collection, sample handling, diagnostic virology, serology and molecular biology, laboratory analysis and interpretation for disease investigation. Using problem-based learning.					
Course Goals:					
<ol style="list-style-type: none"> <li>1. Understand principle of diagnostic virology and serology</li> <li>2. Understand how to apply virology and immunology to identify cause(s) of disease outbreaks</li> <li>3. Integrate previous and current knowledge to set a diagnostic plan for a disease investigation</li> <li>4. Conclude and interpret laboratory diagnostic data and results</li> </ol>					
Course Schedule:					
Each group of student will receive at least two problems. The instructors will advise the students to go through the following steps to solve each problem.					
<ol style="list-style-type: none"> <li>1. Instructor outlining steps of the study using problem-based learning and providing a problem set</li> <li>2. Opening the problem, setting objectives of learning and defining terminology</li> <li>3. Group meeting and self-study to set the diagnostic plan</li> <li>4. Student presentation: the tentative/differential diagnosis of the disease in the problem, present the diagnostic plan including sample collection and handling, possible diagnostic methods</li> <li>5. Laboratory practice, self-study regarding the principle of the diagnostic method(s) and understand the causative pathogen(s), immune response to infection, pathogenesis, disease prevention and control</li> <li>6. Student presentation: principle of the diagnostic method(s) and understand the causative pathogen(s), immune response to infection, pathogenesis, disease prevention and control</li> <li>7. Instructor conclusions and problem closing</li> </ol>					
Remarks:					

Course Title	Clinical Practice in Epidemiology				
Type	Exercise, Clinical Practices	Number of credits	2	Hours	60
Course Instructor	Sirichai WONGNAKPETCH, Suwicha KASEMSUWAN, Suporn THONGYUAN, Chaithep POOLKHET				
Course Overview:					
Practice in veterinary public health and epidemiology, survey and study design, statistical analysis, determination of risk and tabletop exercise.					
Course Goals:					
<ol style="list-style-type: none"> <li>1. To better understand the study design in epidemiological context</li> <li>2. To practice the data analysis in epidemiology</li> <li>3. To better understand the control measurement of Thai authorities in veterinary practices</li> </ol>					
Course Schedule:					
Day #:					
<ol style="list-style-type: none"> <li>1: Design and planning on epidemiological study</li> <li>2: Statistical analysis for qualitative data</li> <li>3: Statistical analysis for quantitative data</li> <li>4: Sampling and sample size determination</li> <li>5: Tabletop exercise</li> <li>6: Risk determination</li> <li>7: Measurement of association</li> <li>8-10: Design, planning, data collection and interpretation of survey study</li> </ol>					
Remarks:					

Course Title	Clinical Practice in Large Animals				
Type	Exercise, Clinical Practices	Number of credits	6	Hours	180
Course Instructor	Pipat ARUNVIPAS, Somchai SAJAPITAK, Anawat SAENGMALÉE, Theera RUKWARMSUK, Adisorn YAWONGSA, Jaturong WONGSANIT, Tanu PINYOPUMMINTR, Anuchai PINYOPUMMINTR, Krittisak TANCHAROEN, Wandee TEINGTUM, Worakit CHEDCHOOTUM, Aree LAIKUL, Kanitha PETUDOMSINSUK, Pornchai SANTITISAREE, Nikorn THONGTIP				
Course Overview:					
<p>Combination of comprehensive lectures and clinical practices in medicine, surgery, theriogenology in ruminant, equine, and wildlife. Herd health management in ruminant species including dairy and beef cattle and small ruminants at veterinary teaching hospital and private farms. Wildlife ecology management practice in wildlife and exotic species practicing at veterinary teaching hospital and on wildlife national park.</p>					
Course Goals:					
<ol style="list-style-type: none"> <li>1. To be able to practice in physical and clinical examination, diagnosis, treatments, prevention and control disease related to medical, surgical, and theriogenological problems in ruminants at individual and herd level.</li> <li>2. To be able to practice in physical and clinical examination, diagnosis, treatments, prevention and control disease related to medical, surgical, and theriogenological problems in horses.</li> <li>3. To be able to practice in physical and clinical examination, diagnosis, treatments, prevention and control disease related to medical, surgical in wildlife and exotic pets.</li> </ol>					
Course Schedule:					
Week #:					
<ol style="list-style-type: none"> <li>1: Introduction to Clinical Practice in Ruminants; infectious disease review, anesthesia review, hoof health and udder health review.</li> <li>2-7: Clinical practice in ruminants; basic farm and health management, farm visit</li> <li>8: Introduction to Clinical Practice in Equine; basic skill review (restraint and physical examination).</li> <li>9-12: Clinical practice in equine; equine ward practice, farm visit, surgical cases.</li> <li>13: Wildlife conservation medicine, anesthesia, drat practice, exotic pet medicine, rabbit medicine, and raptor medicine.</li> <li>14: Post mortem technique and clinical related – Rabbit model, radiographic interpretation, comparative medicine.</li> <li>15: Examination</li> </ol>					
Remarks:					

Course Title	Clinical Practice in Ruminants and Wildlife				
Type	Exercise, Clinical Practices	Number of credits	4	Hours	120
Course Instructor	Pipat ARUNVIPAS, Somchai SAJAPITAK, Anawat SAENGMALÉE, Theera RUKWARMSUK, Adisorn YAWONGSA, Jaturong WONGSANIT, Tanu PINYOPUMMINTR, Anuchai PINYOPUMMINTR, Krittisak TANCHAROEN, Wandee TEINGTUM, Pornchai SANTITISAREE, Nikorn THONGTIP				
Course Overview:					
Combination of comprehensive lectures and clinical practices in medicine, surgery, theriogenology in ruminant, and wildlife. Herd health management in ruminant species including dairy and beef cattle and small ruminants at veterinary teaching hospital and private farms. Wildlife ecology management practice in wildlife and exotic species practicing at veterinary teaching hospital and on wildlife national park.					
Course Goals:					
<ol style="list-style-type: none"> <li>1. To be able to practice in physical and clinical examination, diagnosis, treatments, prevention and control disease related to medical, surgical, and theriogenological problems in ruminants at individual and herd level.</li> <li>2. To be able to practice in physical and clinical examination, diagnosis, treatments, prevention and control disease related to medical, surgical in wildlife and exotic pets.</li> </ol>					
Course Schedule:					
Week #:					
<ol style="list-style-type: none"> <li>1: Introduction to Clinical Practice in Ruminants; infectious disease review, anesthesia review, hoof health and udder health review.</li> <li>2-11: Clinical practice in ruminants; basic farm and health management, farm visit.</li> <li>12: Wildlife conservation medicine, anesthesia, dart practice, exotic pet medicine, rabbit medicine, and raptor medicine.</li> <li>13-14: Post mortem technique and clinical related – Rabbit model, radiographic interpretation, comparative medicine.</li> <li>15: Examination</li> </ol>					
Remarks:					

Course Title	Special Clinical Practice in Small Animal				
Type	Exercise, Clinical Practices	Number of credits	3	Hours	90
Course Instructor	Chalernpol LEKCHAROENSUK, Nirut SUWANNA, Jedee TEMWICHITR, Amornrate SASTRAVAHA, Chayakirt SINTHUSINGHA, Jatuporn NOOSUD, Kanja KAEWMONGKOL, Tassanee JAROENSONG, Panpicha SATTASATUCHANA, Sirikul SUNTARARAK, Sunee KUNAKORNSAWAT, Aree THAYANANUPHA, Monchanok VIJARNSORN, Naris THENGCH AISIRI, Sirirat NIYOM, Chaiyakorn THITIYANAPORN, Waraporn AUMARM, Wuttiwong TEERAPAN				
Course Overview:					
Student gains the clinical skills in small animal practice. The practice aims to obtain professional skills particularly on medicine, surgery and theriogenology in small animal.					
Course Goals:					
<ol style="list-style-type: none"> <li>1. To assimilate between the theory, application, and skill of medicine and surgery</li> <li>2. To increase the effectiveness of health evaluation, diagnosis and treatment of diseases</li> <li>3. To understand how to work on the clinic in the real life with problem oriented approach</li> <li>4. To practice and learn how to communicate with the clients effectively</li> </ol>					
Course Schedule:					
<ol style="list-style-type: none"> <li>1. How to take history and do physical examination effectively</li> <li>2. How to think critically with problem oriented approach</li> <li>3. How to calculate the useful number <ul style="list-style-type: none"> <li>-Fluid therapy</li> <li>-Continuing rate infusion</li> <li>-Clinical nutrition (enteral and parenteral nutrient requirements)</li> </ul> </li> <li>4. Plan the diagnosis and treatment, and interpret the results efficiently and effectively <ul style="list-style-type: none"> <li>-Complete blood count, blood chemistry, and urinalysis</li> <li>-Cytology</li> <li>-Imaging</li> <li>-Other tests</li> </ul> </li> <li>5. Plan the surgical procedure effectively Instructor conclusions and problem closing <ul style="list-style-type: none"> <li>-Anesthesia</li> <li>-Soft tissue and orthopedic surgery</li> </ul> </li> <li>6. Client communicate skill and real life practitioner</li> </ol>					
Remarks:					
Reading Materials					
<ul style="list-style-type: none"> <li>- DiBartola, S.P. 2012. Fluid therapy in small animal practice, 4th ed. St. Louis, Missouri, Elsevier Saunders</li> <li>- Fossum, T.W. 2007. Small animal surgery, 3rd ed. Missouri, Mosby-Elsevier, Inc.</li> <li>- Feldman, E.C. 1996. Canine and feline endocrinology and reproduction. Philadelphia, W.B. Saunders</li> <li>- Evans, H.E. 1993. Miller's anatomy of the dog. Philadelphia, WB Saunders Company</li> </ul>					