



**SYLLABUS:
VMED 5452
Diagnostic Veterinary Pathology
Clinical Rotation**

CONTACT INFORMATION:

Course Coordinator:

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Course Faculty:

Anatomic Pathology: Drs. Rudy Bauer, Fabio Del Piero, Dawn Evans, Ingeborg Langohr, Dan Paulsen, Nobuko Wakamatsu, Residents: Drs. Amanda Anderson, Mariano Carossino, Jacqueline Elliott, Emi Sasaki, Tatiane Negrao Watanabe

Clinical Pathology: Drs. Steve Gaunt, Shannon Dehghanpir, Residents: Drs. Matthew Schexnayder, Annie Bauman

Microbiology/Parasitology: Dr John Hawke (coordinator of this part of the course), Dr John Malone, Dr. Alma Roy, Ms Kim Legaux

WELCOME TO YOUR PATHOLOGY ROTATION!

Your Diagnostic Pathology Rotation will be spent reviewing and becoming more comfortable and proficient with both Clinical and Anatomic Pathology.

PLEASE NOTE, ATTENDANCE ON THE FIRST AND LAST DAYS OF THIS ROTATION ARE 100%

MANDATORY! If you must miss the first day, please contact the Student Affairs Office ASAP to reschedule the block, as our necropsy training cannot be made up.

On the first day of the block, please meet in the LADDL Building Teaching room (LADDL 1084) at 8:00 AM, sharp. This room is on the first floor of the new building (behind the vet school). The morning will be spent getting you oriented and answering any questions you may have. Your mornings will be spent either in Anatomic Pathology "class", in a Clinical Pathology lab, or Microbiology/Parasitology lab, and your afternoons will be spent on the necropsy floor. Remember to bring your coveralls, boots (we REQUIRE non-slip boots...see below), and a knife (we have some in the necropsy lab, but we always encourage you to have your own).

We will be e-mailing your morning schedule before you begin your Pathology rotation, so be on the lookout for that correspondence within a few days before your block starts.

COURSE MATERIALS:

Suggested textbooks:

- Pathologic Basis of Veterinary Disease, 6th ed., Zachary
- Robbins Pathologic Basis of Disease, 9th ed., Cotran, Kumar, Collins
- Pathology of Domestic Animals, 6th ed., Maxie: Jubb, Kennedy, and Palmer.

Recommended References for Micro/Parasit:

- Markey, B, Finola,L.: Clinical Veterinary Microbiology, 2nd edition, Elsevier, 2013.
- MacLachlan NJ, Duboni EJ, Fenner's Veterinary Virology, 4th edition Elsevier, 2011.
- Paul WE, Fundamental Immunology, 6th edition, Lippincott Williams and Wilkins, 2008.
- Greene GE, Infectious Diseases of the Dog and Cat, 4th edition, Elsevier, 2012.
- Aucoin, D Target, The Antimicrobial Reference Guide to Effective Treatment, 3rd edition North American Compendiums Inc. 2007.

- Giguere, S, Prescott JF, Dowling PM, Antimicrobial Therapy in Veterinary Medicine, 5th edition, Wiley Blackwell, 2013.

Required equipment:

- One-piece coverall
- Protective eye-wear/glasses or safety goggles; prescription glasses may suffice; NO unprotected CONTACT LENSES on the necropsy floor
- Non-slip rated boots, preferably Guardian IV or Bullfrog Pro from www.shoesforcrews.com
- Optional Equipment: surgical cap, dissection instruments (such as pair of large (15 cm or 6" - or longer) Mayo-type operating scissors, large general thumb forceps); we do supply instruments, but you are welcome to bring your own

COURSE DESCRIPTION:

Students on this rotation will spend every morning in either Clinical Pathology lectures/labs, Anatomic Pathology lectures, OR Microbiology/Parasitology lectures/labs, and will spend every afternoon performing necropsies in the Louisiana Animal Disease Diagnostic Laboratory. Students are directly supervised by residents and faculty.

During the Diagnostic Microbiology part of the course, you will work in both a lecture and laboratory setting where diagnostic tests will be described and performed followed with full discussion of the design, interpretation and application. Laboratory submission forms with case histories, and clinical specimens are used to teach the course. The focus of this portion of this course is to provide practical diagnostic testing experience for a veterinary clinical practice.

- 8:00 - 12:00 Meet in the LADDL teaching room (1084) the first day of the block and most mornings, or SVM 2313 or SVM 2330 (during some of the micro/parasit portions of the course), as indicated on the morning schedule (to be distributed the week before the rotation begins).
- 1:00 - Necropsy. Upon completion of necropsy, write up the gross findings, clean up the laboratory and instruments, review and discuss necropsy findings and diagnoses.

COURSE OBJECTIVES:

List course/clerkship learning objectives:	List keywords for each objective
DIAGNOSTIC PATHOLOGY	
1. To become proficient in correlating clinical and laboratory findings with disease processes and morphologic alterations.	Pathogenesis, correlation, morphological alteration, laboratory findings
2. To become proficient in performing a routine postmortem examination and to learn proper tissue sampling and handling procedures.	Post mortem examination, necropsy, tissue sampling
3. To become capable of recognizing, describing and interpreting gross pathologic changes.	Lesion interpretation
4. To become capable of making differential, morphologic, and definitive diagnoses.	Differential diagnosis Morphological diagnosis Definitive diagnosis
5. To become proficient in recognition and interpretation of hematologic responses in blood and marrow.	Hematology, blood, bone marrow
6. To become capable of identifying and evaluating inflammatory and neoplastic cytologies.	cytology
7. To become proficient in performing and interpreting a complete urinalysis.	urinalysis
8. To become proficient in interpreting chemistry profiles and identifying additional special chemistries required for diagnosis.	Clinical chemistry
9. To recognize artifacts associated with laboratory testing and consider cost analysis and reliability in selecting the source of laboratory results.	Laboratory artifacts
DIAGNOSTIC MICROBIOLOGY/PARASITOLOGY	

1. Describe proper procedures for collection, submission, handling and transport of diagnostic specimens.	Specimen collection and handling and transport
2. Perform and or describe the routine procedures used in the diagnosis of infectious and immunologic diseases.	Performance and description of diagnostic test
3. Evaluate the usefulness and cost of commercial in-office test kits.	Commercial kit test
4. Interpret laboratory results or laboratory reports to assist in determining the etiologic diagnosis of a clinical case history	Diagnosis based on laboratory test results
5. Evaluate laboratory test for sensitivity, specificity, and predictive value	Test sensitivity, specificity, predictive values
6. Evaluate the value of the diagnostic test in case management and the cost to benefit ratio of the test	Diagnostic test and case management
7. Recommend treatment and control measures for infectious diseases	Treatment and control measures
8. Calculate the dose and determine the efficacy and costs of antibiotic treatment	Antibiotic efficacy and cost
9. Estimate the costs and benefits of laboratory testing	Cost and benefit of testing
10. Evaluate the different types Veterinary Diagnostic laboratories. Understand the meaning of accreditation and quality assurance as it pertains to a veterinary diagnostic laboratory	Accreditation of Veterinary Diagnostic Laboratories

TEACHING PHILOSOPHY:

The morning sessions are taught as small group classes/labs and (unless otherwise specified by the instructor) are expected to be interactive discussions rather than didactic lectures. Students are expected to participate and add to the discussions and laboratory exercises. Surfing the internet on computers or other OS devices, talking, and sleeping during these sessions will not be tolerated and may be reflected in the overall "attitude" grade. Pre- and post-necropsy discussions are expected to be similarly interactive and participation in these discussions will directly affect "attitude" and "knowledge" grades. The exam at the completion of the rotation is used to assess how much was assimilated from the morning sessions as well as the necropsy and DPC experiences. We expect to see improvement weekly on the necropsy floor in terms of performing necropsies, as well as in recognizing, describing, and interpreting lesions.

COURSE POLICIES:

- All morning lectures/labs as well as afternoon and weekend necropsy sessions are MANDATORY, and any absences must be approved by the lecture/lab/necropsy mentor, as well as the course coordinator (see below).
- All original necropsy paperwork MUST remain in the LADDL building; however, copies may be made for work outside the building.
- Typed necropsy reports are due via e-mail to the resident on the case AND the supervising pathologist by 8:00 AM the morning following the necropsy; a template for the typed reports will be supplied during the first week of the rotation.
- **Micro/Parasit**
 - There are no excused absences for these courses (except NAVLE). You must be present for all sessions. Each session or part of a session that you miss will result in a one letter reduction in your grade.
 - No other instructor can change this schedule or excuse students from a session without the advance approval of Dr. Hawke. In his absence, you will be told who has this responsibility.
 - Proper personnel protective equipment must be worn in the laboratory. A laboratory coat or jacket is required.
 - Gloves can be worn during laboratory exercises. Cellphones and laptops are not to be used in the laboratory. You must wash your hands before leaving the laboratory
- **NECROPSY LABORATORY PROCEDURE**
 1. Arrive at the necropsy laboratory 10 minutes prior to start time.
 2. Meet in the rounds room. Determine a **primary student** for each case and appoint a "**clean hands person**," who will take records, label specimens, retrieve supplies, etc.
 3. Primary student: Review case records. Fill out the top of the Student Worksheet.
 4. If an LADDL number or authorization signature is missing, notify the duty pathologist or resident.
 5. Discuss the case with the duty pathologist. The primary student records on the Student Worksheet **any ancillary testing** specified by the pathologist. Determine **final disposition** of the animal carcass.
 6. Enter locker rooms. Put on coveralls and seamless rubber, slip-resistant boots.

7. Enter the necropsy room through the footbath.
 - a. **Caution: The floor may be slippery. Slip-resistant boots are mandatory.**
 - b. **No eating, drinking, chewing gum, tobacco, in necropsy or attached rooms (including the rounds room). No personal electronic devices in necropsy.**
8. **Verify the identity** of the animal being necropsied via tags, breed, age, weight, description, etc.
9. **The necropsy is performed under the supervision of the resident and/or duty pathologist.**
 - a. You are dealing with sharp instruments and/or sharp bony fragments. Be careful.
 - b. You must wear latex and/or nitrile gloves at all times while working in the necropsy laboratory.
 - c. You must wear appropriate eye protection: Safety glasses, prescription eyeglasses, or goggles. Goggles are required if you are wearing contact lenses.
 - d. Formaldehyde is a hazardous chemical. Minimize aerosol exposure and dispose of it in marked waste formalin containers. If you spill formalin on the floor, immediately notify the necropsy associate, resident, or duty pathologist.
 - e. Report injuries to the duty pathologist. Assist the duty pathologist, resident or Necropsy RA in completing and submitting the LSU Incident Report Form (<https://www.lsu.edu/riskmgmt/claims/injury-reporting.php>).
10. Necropsy any potential zoonotic disease case (psittacine birds, etc.) under the BSL2 hood.
11. The **primary student** shall assure that any **special carcass disposal requirements** (for example, private cremation) are followed and that **all the pathologist's requests for tests/specimens are completed.**
12. Under direction of the duty pathologist or resident: place ancillary testing specimens and request forms in the pass-through refrigerator.
13. Clean the necropsy laboratory and soiled equipment upon completion of the day's necropsies.
 - a. Disinfection, power washing, and steam cleaning will be performed by the LADDL staff only.
14. **Scrub your boots** and remove gloves upon egress from the necropsy laboratory. **Remove coveralls and boots prior to egress from the locker rooms.** Wet boots must not be placed in the lockers. Soiled coveralls are placed in the pass-through to the laundry. **Empty all pockets!**
15. Primary student: Place the worksheet with the necropsy case records in the designated box; write the narrative of the necropsy and email the report to the duty pathologist and resident.
16. Primary student: Assure that all requested ancillary tests were submitted. Freeze tissues as needed.
17. Select one or two from among yourselves to wash and dry soiled coveralls in the LADDL laundry room. Laundry detergent is supplied by LADDL. This should be accomplished in the evening after necropsy and/or before classes begin in the morning.
18. Preserve client confidentiality; sharing information of animals, owners, necropsy findings etc. with others is **NOT** allowed.
19. No pets are allowed in the LADDL building.

- *Attendance / Lateness Policy:*

Absences must be pre-approved by the faculty mentor. Requests should be made two weeks prior to the start of the rotation and an absentee request form signed. These forms can be found in the VCS office and on the LSU SVM website. Unexcused absences will result in an incomplete grade and students will be required to repeat the days missed or the entire 2 week rotation. Students may be required to make up any time missed during a rotation, no matter the cause. Missed days that are made up will not count towards the total allowable excused absences. Please see the Phase II attendance requirements below. If ill, the student must call or e-mail the Duty Pathologist and/or the course coordinator to make the faculty aware of this absence. An absentee form needs to be signed as soon as the student is back at school.

- MICRO/PARASIT: There are no excused absences for these courses (except NAVLE). You must be present for all sessions. Each session or part of a session that you miss will result in a one letter reduction in your grade. Most days have more than one session. No other instructor can change this schedule or excuse students from a session without the advance approval of Dr. Hawke.

- *Natural Disasters (Hurricanes, etc.)*

Hurricane Season officially runs from June 1st - Nov. 30th. The projected path of tropical storms/hurricanes are mapped by the National Hurricane Center: <http://www.nhc.noaa.gov/?atlc>. Please stay aware of impending storm systems. Staff and students of the VTHC are "essential personnel" during disasters affecting our community. The clinic schedule and student responsibilities may change during such events. Students may be required to participate in VTH emergency response efforts depending upon need and safety. **Please check with the faculty member prior to any storm landfall projected for Louisiana.** If you are asked to report for duty during an emergency, your personal safety is the number one priority. Use common sense in your commute and alert the Duty Pathologist if you are unable to arrive safely.

COPY STATEMENT

Some of the materials in this course are possibly copyrighted. They are intended for use only by students registered and enrolled in this course and only for instructional activities associated with and for the duration of the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Teach Act (Section 110(1) of the Copyright Act) <http://www.copyright.gov/docs/regstat031301.html>.

GRADING/EVALUATION:

Anatomic Pathology	50%
Clinical Pathology	25%
Microbiology/Parasitology	25%
Total:	100%

ANATOMIC PATHOLOGY - NECROPSY PERFORMANCE GRADING CRITERIA

KNOWLEDGE BASE:

- Demonstrate adequate knowledge of pathology
- Ability to ask and/or answer appropriate questions
- Application of knowledge to recognize and interpret lesions
- Utilization of sources of information (reading, consultation, etc.)
- Evidence of self-learning

SKILL:

- Perform necropsy in a thorough and efficient manner
- Progressive improvement in accuracy and efficiency of necropsy
- Appropriate and complete tissue sections for histopathology
- Adequate utilization of cytology and other diagnostic procedures
- Adept handling and proper use of tools and instruments
- Progressive improvement in writing gross pathology report

RESPONSIBILITY:

- Attendance/punctuality, including weekends/holidays
- Participation in cleaning of laboratory and instruments
- Proper maintenance of required personal instruments/supplies
- Participation in Gross tissue presentation

ATTITUDE:

- Professionalism
- Positive interaction with peers and faculty
- Cooperative participation in various block activities
- Constructive contribution to group discussions
- Appropriate attire, tidiness
- Constructive behavior

***Completion of Necropsy Technique Assessment is a requirement to complete this course.

** Each student's performance will be evaluated by participating instructors. The areas in which students should exhibit acceptable and/or improved performance are listed on evaluation sheets, with examples of behavioral traits indicative of acceptable performance. Criteria for evaluation of student's activity and performance may vary in sections. Activity and performance in one section may have direct or indirect influence on grading in other sections of subjective grading. Due to the complexity and continuous nature of the block activities, the grade will be collated at the end of the block and turned in to the VCS office. Students will not receive weekly grades. The standard SVM grading scale listed below will be used with grades rounded to the nearest percentage point.*

A+	97-100%
A	93-96%
A-	90-92%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	73-76%
C-	70-72%
D+	67-69%
D	63-66%
D-	60-62%

ASSIGNMENTS/RESPONSIBILITIES:

**1. GROSS TISSUE PRESENTATION (“SHOW AND TELL”) (approx. 2-5 minutes per case)
(Thursdays at 1:10 in the necropsy laboratory)**

- a. Give a brief summary of the pertinent clinical history and clinical diagnosis
- b. Description (not a diagnosis or interpretation) of gross abnormalities
- c. Morphologic diagnoses
- d. Differential diagnoses and/or possible etiologies
- e. Final diagnosis, if applicable

NOTE: Be prepared to discuss significance of the lesions, give a justification of your diagnosis, and talk about the pathogenesis of the lesion development and/or disease processes, including incidences of the disease, treatment, prevention, etc.

2. MICROBIOLOGY/PARASITOLOGY

Students are expected to come to class, enter into discussions and complete all assigned work. Grading is based on successful completion of the assigned tasks, powerpoint presentations and discussions. The results you obtain are not as important as the discussions of the principles involved and how laboratory results assist you in the diagnosis of disease. Evaluations are primarily subjective based on your active participation. Exams are not given. For each assigned task/case, you are expected to be the expert and able to answer all pertinent questions about the disease or clinical situation. That means advance preparation prior to the discussion time (kit product insert PLUS library references, notes or any other resources). Bring these to class. Do not just use kit insert or webpage.

You are expected to turn in a written summary daily of the Cases assigned for the day. You should use the guideline questions for the format of the written summary. You are expected to participate in class discussion and laboratory exercises as assigned

TYPICAL SCHEDULE:

Tuesday	Wednesday	Thursday	Friday
Orientation/ Introduction	Discussion Case B	Discussion Case B	Discussion Case A
Lab - Case B and begin Case A	Lab –continue Case A Begin Case B	Lab – Complete Case A and B	Complete Class Discussions

Guidelines for Case A Discussion (For Discussion and Written)

1. Review signalment and case history (if any) on submission form. List the most likely bacterial species that cause this type of infection. If the anatomic area has a normal bacterial flora, list those species that are commonly present.
2. Is a stained smear appropriate for this specimen? Would you choose a cytological stain, Gram stain or both? What did you see in your Gram stain? Could it assist in diagnosis? Could it give enough information to assist in choosing therapy pending culture results? Could it give enough information so that a culture would not be needed?
3. How will culture results assist in case management? How necessary is culturing in this case?
Is a "swab" specimen appropriate for this type of specimen? Give alternatives.
4. What therapy would you choose pending culture results?
5. What is the dose, and frequency of antibiotic to be given? What is the estimated MIC.? What is the cost per dose, per day, per entire course of treatment? Is the drug time-dependent or dose-dependent? Is the chosen antibiotic concentrated at the site of the infection? Is the antibiotic approved for use in the species of animal being treated? Is it approved for the site, organism, route and form given?
6. How did the culture results influence or change the initial chosen therapy? Was it worth it?
Was an antibiotic sensitivity test warranted in this case? When did you make that decision?

Guidelines for Case B (PowerPoint Presentation)

Review the signalment and case history of the patient

Review of Infectious Disease and Diagnostic Approach

Review the infectious disease suspected in this case-- in terms of acute and convalescent stages i.e. clinical findings, shedding time period, and or antibody production (IgG, IgM).

Test parameters

What diagnostic test is being requested for this specific case?

What does the test detect? (Antibody or Antigen)

What is the method of detection? (ELISA, AGID, etc.)

Explain the technical aspects of the test (provide a picture and diagram of how test works))

Explain the controls used in this test.

What would cause an invalid test result?

What is the test sensitivity and test specificity of the test?

What are the sample requirements?

What is the cost of the test -reagents? Does this test come in a kit? How many test are in the kit. What is the cost of an individual test? Would it be cheaper to perform the test as a batch test (animals tested at the same time)?

What would your fees for this test be if used in your clinic?

Would you use this test in your clinic?

Describe which diagnostic test could be used for:

Acute phase of this infectious disease

Convalescent stage of this infectious disease.

Was this test appropriate for this case presentation? If not, what other diagnostic tests would you recommend for this patient at the time of presentation?

Biosecurity

How would you explain to your client potential transmission to other animals or to the client if zoonotic?

Is there any biosecurity, and or decontamination procedure used if this animal were in your clinic?

COURSE CONTENT AND OUTLINE:

PROTOCOL FOR NECROPSY REPORT

GROSS FINDINGS: Use complete sentences in present tense.

- a. **Signalment:** May include all or part of the following:

- **Species and breed**
- **Age** (if age is unknown - estimate; neonatal, young adult, aged, etc. In case of an abortus, also include gestation age, crown-rump length, body weight, presence or lack of hemorrhage at the severed end of umbilical artery, and inflation status of the lung - floats/sinks in the formalin).
- **Sex** (intact, castrated or spayed)
- **Body weight** in kg or gm
- **Nutritional state** and, if noticeable, degree of dehydration
- Degree of **postmortem autolysis**

- **Color** of hair coat, **ID Marks**, ear tags, lip tattoos, etc.

Included within or immediately following the signalment are generalized abnormalities such as icterus, widespread petechiation, ectoparasites, evidence of diarrhea, discharges from the orifices, etc.

- Positive Findings: First describe organs or tissues that have any gross abnormalities, then the lesions in the tissue. Also included are results of special techniques employed, if any: Gram stain, impression smears, S.G. or pH of fluid, etc.**
 - **Organ or tissue:** Displacement, size, color, shape, consistency, texture, external and cut surfaces, weight, and measurements - if necessary.
 - **Lesion:** Size, shape, color, external and cut surfaces, shape, consistency, texture, position or location within the organ demarcation, number, distribution, etc.

e.g. The spleen is enlarged 2x its normal size, diffusely dark purple red and slightly firmer than normal. There is a firm, circumscribed nodule, 2 cm in diameter, in the head of the spleen. The nodule is non-encapsulated and is stippled dark purple with a few white foci on the capsular surface as well as on the cut surface.
- Negative Findings: List all the tissues suspected to have lesions and found to be grossly normal.**
e.g. There are no gross abnormalities in the liver, brain, intestine, and kidneys.
- Laboratory Samples: List all samples submitted for bacteriology, virology, toxicology, etc., or stored in freezer for future use. Do not list tissues collected for histopathology.**
e.g. Liver and kidney samples are submitted for virology. Samples of liver and stomach contents are stored in the freezer.
- Gross Diagnoses: Give the gross necropsy findings as best you can and give morphologic diagnoses and differential disease diagnoses. Give a specific disease diagnosis if characteristic lesions of the disease have been found, otherwise provide morphologic diagnoses.**
e.g. Granulomatous pneumonia, consistent with blastomycosis
Generalized icterus, hemoglobinuric nephrosis or hemoglobinuria, characteristic of vena caval syndrome
Acute renal infarct, right kidney
Thymic lymphosarcoma
Fibrinopurulent bronchopneumonia, consistent with pneumonia pasteurellosis.
None or Undetermined
- Case Discussion and Assessment:**
 - Correlation of the major clinical problems with lesions and laboratory abnormalities.
 - Correlation of the laboratory abnormalities with lesions found.
 - Incidences and mechanisms of the disease, and pathogenesis of the major lesions.

NECROPSY LABORATORY DOs AND DON'Ts

1. Necropsy Laboratory Conduct

- Punctuality, courtesy and professionalism are highly regarded and will be assessed as part of your attitude and responsibility
- Voluntary cooperative participation is strongly encouraged and will be assessed as part of your attitude grade
- Necropsy cases may be taken in alphabetical order of students' names.
- Make a purposeful effort to view all necropsy cases of the day.
- Wear clean protective coveralls, boots and gloves all the time when handling tissues and instruments.
- Use tools and instruments for the designed purpose only.
- Cleaning the laboratory and instruments after necropsy should be thorough and complete, and will be evaluated your attitude and responsibility grade
- Eating and gum chewing are prohibited in the necropsy laboratory.**
- Always be concerned about Laboratory Safety.

2. **Gross lesions in situ** - Do not remove, displace or alter the lesion until the attending pathologist examines it.

3. Preservation of lesions or tissues for **Show and Tell**

Representative lesions or tissues should be preserved in designated Jore's or formalin solution after taking tissue samples for histopathology. Rinse excessive blood and dirt off first in the fixative designated for rinse. Do not destroy gross lesions by making unnecessary sections.

4. Tissue sampling for histopathology

- A. Keep all tissue slices **no more than 5 mm thick** (ideally 3 mm thick), 2 x 3 cm in size. The tissue samples should be of even thickness, smooth on cut surface, and free of artifact, finger pressure.
- B. Collect tissue samples from different animals in separate containers even if they are from same premises.
- C. Tubular organs with walls less than 5 mm thick, make 2 cm long sections. Ex. intestine, trachea, aorta, etc.
- D. Do not scrape the mucosa of the mucosal tissue to be saved for histopathology.
- E. Brain and spinal cord – May be fixed in its entirety unless a laboratory sample needs to be taken. A large animal brain should be placed in a separate container.
- F. Save 2-3 samples from a lesion or an organ.
- G. Place the collected tissue samples in formalin as soon as possible.
- H. Formalin:tissue ratio should be at least 10:1. Bloody or dirty formalin should be changed.

5. Tissue samples for Microbiology, Toxicology and Parasitology laboratories

- A. Tissue **samples for support laboratories** are collected **sterile** in appropriate containers (whirlpack bags, syringes and swabs), labeled properly and submitted immediately. These samples must be fresh, **NOT fixed in formalin**.
- B. The label on the samples should include: pathology number, species, tissue, laboratory work requested.**
- C. Collect separate samples for each different laboratory.

6. Brain for **RABIES** examination.

If the animal submitted is suspected of rabies, remove the brain from the animal. Submit the entire brain to the diagnostic virology laboratory in a designated container. The brain for virology must be fresh, **NOT fixed in formalin**.

If necropsy is requested to be done on the animal, the brain will be returned from the virology laboratory after necessary sample is collected. Now place the brain promptly in a labeled formalin container. Perform necropsy only after the virology result is negative for rabies.

Rabies-positive cases will be disposed of without necropsy. If pathologist wishes to submit a specific partial brain sample to virology, a complete slab section of **cerebellum and underlying brain stem** is required. **Hippocampus** is optional.

7. **Cytology:** Utilize an appropriate cytological preparation if at all possible on all proliferative/nodular lesions and exudates. Diff-Quick stain is available in necropsy.

8. Communication with animal owner or veterinarian on necropsy results is the pathologist/resident's responsibility.

9. **Disposal** of formalin: Use the designated containers labeled HAZARDOUS WASTE DISPOSAL

10. **Disposal** of Carcass and Trash

- A. Stainless steel bin (in the out-cooler) - for materials to be incinerated: carcasses/animal tissue only. Do not put plastic bags etc.
- B. Red Biohazard Trash can (in the necropsy room) - Contagious material, used bags, used gloves etc. Do not put animal tissue.

ATTENDANCE REQUIREMENT

All students in the Phase II curriculum may be allowed a maximum of six (6) excused absences (this may be days or portions thereof, depending on the desires of the block mentor and course coordinator) which require no form of remediation. Additional days, for the days of the examination only, will be allowed to take the North American Licensing Examination. Examples of excused absences that may be allowed are: job interviews, state board examinations, family emergencies, illness, and attendance of professional meetings.

The block mentor shall have the final authority on granting an excused absence. Resolution of a dispute over excused absences shall be the duty of the Associate Dean for Student Affairs. Block mentors will be encouraged to allow any necessary excused absence, however insufficient student numbers on a block may preclude the approval of an excused

absence. A maximum of two excused absences will be allowed per four week block and one excused absence per two week block. If a student exceeds the number of excused absences allowed per block then remediation may be required to pass the block (such as additional assignments or making up time lost).

If a student misses more than 2 days in any block's grading period, then remediation may be required. These missed days include boards and excused absences (i.e. travel to and from boards and the boards). All excused absences greater than the six days allowed may require remediation. A written notification to the Associate Dean for Student Affairs for approval will be required at least four weeks in advance in anticipation of any anticipated excused absence over 6, or as soon as possible after an unanticipated excused absence. The Course Coordinators will forward a copy of any excused absence to the VCS office for tabulation. A written confirmation of the absence may be required. A written excuse may be required. If a written excuse cannot be obtained, then the absence will be considered unexcused. Any unexcused absence will require remediation and/or possible failure of the block.

PHOTOGRAPHS AND VIDEO OF PATIENTS:

Photographs and video may be taken of patients for educational purposes (e.g., for use in abstracts, articles, and presentations). Any photographs and video for use by the media may not be taken without the express consent of the patient's owner. Verbal consent by the animal's owner is an acceptable means of gaining permission to photograph/video the patient. If a member of the media is present in the hospital and wishes to take background footage of clinicians and students working with animal, no close-up shots are permitted such that the animal would be identified by its owner. All media requests must be directed to the LSU – School of Veterinary Medicine Public Relations Coordinator.

POSTINGS ON INTERNET/ SOCIAL NETWORKING SITES:

Posting, releasing, or otherwise disclosing photos, identifiable case descriptions, images, or records related to the educational, clinical, or research activities of the LSU - School of Veterinary Medicine, outside of the LSU - School of Veterinary Medicine via social networking sites (e.g. MySpace, Facebook, Twitter, etc.) or via other than standard professional means of query and/or dissemination of educational, clinical, or research information is prohibited. This policy applies to all students, faculty, staff, clients, and visitors of the LSU - School of Veterinary Medicine and to all activities of the LSU - School of Veterinary Medicine, on or off campus, related to veterinary clinical services and teaching and research labs. Pictures of animals (whether owned by University or client), and client information are strictly forbidden from being published or posted on social networking sites such as "Facebook", "Twitter", and "Myspace"; and non-educational blogs, message boards, or internet websites; without the prior approval from an appropriate Supervisor, Department Head, Director of the LSU – School of Veterinary Medicine Veterinary Teaching Hospital, or the Director of the Louisiana Animal Disease Diagnostic Laboratory. This policy is to promote the safety and privacy of students, faculty, staff, clients, and visitors. Failure to comply with this policy could result in damage to persons or property, may be a violation of legal, professional, and/or ethical obligations, and may result in disciplinary action by the LSU - School of Veterinary Medicine, up to and including dismissal.

LSU SCHOOL OF VETERINARY MEDICINE ACADEMIC MISCONDUCT POLICY:

The LSU Code of Student Conduct applies to the School of Veterinary Medicine within the Code is the Academic Misconduct Policy, which outlines the School of Veterinary Medicine expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the LSU Code of Student Conduct Policy and for living up to their pledge **not** to violate the Code.

- I. It shall be a violation of this Code for a student to cheat.
- II. It shall be a violation of this Code for a student to knowingly circumvent any course requirement.
- III. It shall be a violation of this Code for a student to steal.
- IV. It shall be a violation of this Code for a student to purposely impair another student's educational opportunity.
- V. It shall be a violation to act in a manner which is detrimental to the moral and ethical standards of the veterinary medical profession.
- VI. It shall be a violation for a student to knowingly deceive another student, faculty member, or professional associate with the intent to gain advantage, academic or otherwise, for said student or for any other student.
- VII. It shall be a violation for any student to fail to report any infraction of the LSU Code of Student Conduct Policy to an appropriate representative.

LSU Code of Student Conduct can be found at:

<http://saa.lsu.edu/code-student-conduct>

SEXUAL HARASSMENT POLICY

The University reaffirms and emphasizes its commitment to provide an educational and work environment free from sexual harassment and to provide a means to remedy sexual harassment that employees may have experienced. (PS-73 Sexual Harassment and PS-95 Sexual Harassment of Students)

The intent of this policy is to express the University's commitment and responsibility to protect its students from sexual harassment and from retaliation for participating in a sexual harassment complaint. It is not intended to infringe upon constitutionally guaranteed rights nor upon academic freedom. In considering allegations of sexual harassment, the University must be concerned with the rights of both the complainant and the accused.

All proven cases of sexual harassment shall result in appropriate disciplinary action. The severity of the disciplinary action shall be consistent with the seriousness of the act of sexual harassment. Additionally, under appropriate circumstances, the University may take action to protect its students from sexual harassment by individuals who are not students of the University. If the alleged harasser is a student, the Dean of Students Office must be notified of the complaint.

Student Advocacy & Accountability, Office of the Dean of Students, LSU Student Life & Enrollment, 340 LSU Student Union, Baton Rouge, LA 70803, Phone: (225) 578-4307 Fax: (225) 578-5637 dossaa@lsu.edu

GENERAL STATEMENT ON ACADEMIC INTEGRITY:

Louisiana State University adopted the Commitment to Community in 1995 to set forth guidelines for student behavior both inside and outside of the classroom. The Commitment to Community charges students to maintain high standards of academic and personal integrity. All students are expected to read and be familiar with the LSU Code of Student Conduct and Commitment to Community, found online at www.lsu.edu/saa. It is your responsibility as a student at LSU to know and understand the academic standards for our community.

Students who are suspected of violating the Code of Conduct will be referred to the office of Student Advocacy & Accountability. For undergraduate students, a first academic violation could result in a zero grade on the assignment or failing the class and disciplinary probation until graduation. For a second academic violation, the result could be suspension from LSU. For graduate students, suspension is the appropriate outcome for the first offense.

PLAGIARISM AND CITATION METHOD:

As a student at LSU, it is your responsibility to refrain from plagiarizing the academic property of another and to utilize appropriate citation methods for all coursework. Ignorance of the citation methods is not an excuse for academic misconduct. Remember there is a difference between paraphrasing and quoting and how to properly cite each respectively.

One tool available to assist you in correct citations is the "References" function in Microsoft Word. This program automatically formats the information you input according to the citation method you select for the document. This program also has the ability to generate a reference or works cited page for your document. The version of Microsoft Word with the "References" function is available in most University computer labs. A demonstration of how to use this tool is available online at www.lsu.edu/saa.

GROUP WORK AND UNAUTHORIZED ASSISTANCE:

All work must be completed without assistance unless the faculty member gives explicit permission for group or partner work. This is critical so that the professor can assess your performance on each assignment. If a group/partner project is assigned, the student may still have individual work to complete. Read the syllabus and assignment directions carefully. You might have a project with group work and a follow up report that is independently written. When in doubt, e-mail the faculty member or ask during a class session. Seeking clarification is your responsibility as a student. Assuming group/partner work is okay without permission constitutes a violation of the LSU Code of Student Conduct.

AMERICANS WITH DISABILITIES ACT:

Louisiana State University is committed to providing reasonable accommodations for all persons with disabilities. The syllabus is available in alternate formats upon request.

Students with disabilities: If you are seeking classroom accommodations under the Americans with Disabilities Act, you are required to register with Disability Services (DS). DS is located in 115 Johnston Hall. Phone is 225/578-5919. To receive academic accommodations for this class, please obtain the proper DS forms and meet with me at the beginning of the class. The Office of Student and Academic Affairs can help you if you have questions as well. <http://disability.lsu.edu/students>

SYLLABUS CHANGE POLICY:

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advanced notice.

SVM INSTITUTIONAL LEARNING GOALS/OBJECTIVES ALIGNED WITH COMPETENCIES:

SVM 9 +1 Clinical Competency Anchor Points			
Competency One: <i>Comprehensive patient diagnosis (problem solving skills), appropriate use of clinical laboratory testing, and record management</i>	Aligned with VMED 5452 Learning Objective	Assessment Method	Teaching Method
1.3 Knowledge Base/Basic Pathophysiology	1, 3, 4, 5,6,7,8,9	Oral necropsy Necropsy reports	Patient presentation Lectures
1.4 Diagnostic Skills/Clinical Laboratory Assessment	3,5,6,7,8,9	Oral Necropsy reports	Patient presentation Lectures
1.5 Participation in Patient Discussions	1,4	oral	Patient presentation Lectures Labs
1.6 Medical Records	3,4	Necropsy reports	Patient presentation
Competency Five: <i>Basic medicine skills, experience and case management</i>	Aligned with VMED 5452 Learning Objective	Assessment Method	Teaching Method
5.1 Basic medical skills/ Case Management	3,4	Oral Necropsy reports	Patient presentation
5.2 Medical experience gained through rotation	1,2,3,4,5,6,7,8,9	Oral necropsy Necropsy reports DPC exam	Patient presentation Lectures Labs
Competency Seven: <i>Health promotion, disease prevention/biosecurity, zoonosis, and food safety</i>	Aligned with VMED 5452 Learning Objective	Assessment Method	Teaching Method
7.3 Biosecurity	2	necropsy	Patient presentation

7.4 Zoonosis	2	necropsy	Patient presentation
Competency Eight: <i>Client communications and ethical conduct</i>	Aligned with VMED 5452 Learning Objective	Assessment Method	Teaching Method
8.3 Ethical Conduct	1-9	oral	
8.4 Emotional Stability	1-9	oral	
8.5 Reliability/Thoroughness/Punctuality/Appearance	1-9	Oral	
Competency Nine: <i>Critical analysis of new information and research findings relevant to veterinary medicine</i>	Aligned with VMED 5452 Learning Objective	Assessment Method	Teaching Method
9.1 Critical Analysis of New Information and Research Findings Relevant to Veterinary Medicine	1,3,5,6,7,8	Oral	Patient presentation Lectures Labs
9.2 Demonstrate effective use of literature, references and informational technology in support of diagnosis, case management, and continuing medical education.	1,3,5,6,7,8	Oral	
Competency Ten: <i>Comparative Pathobiology: In the clinical setting discuss and apply basic science (physiology, immunology, histology, neuroscience, anatomy, etc.) to clinical cases within and across common species and between animal classes (mammals, birds, fish, reptiles, amphibians, etc.).</i>	Aligned with VMED 5452 Learning Objective	Assessment Method	Teaching Method
10.1 Comparative and developmental physiology & anatomy	1,2,3,4	Oral necropsy Necropsy report	Patient presentation Lectures Labs
10.3. Apply central biological principles and mechanisms on a cellular, systemic, and population level.	1-8	Oral necropsy Necropsy reports	Patient presentation Lectures Labs