

SYLLABUS

Name of Course: Exam: Abdomen and Thorax – Lecture (DIAG-236)

Length of Course: 2 units, 33 hours (3 hours lecture)

Course Description: This course develops the student's understanding and clinical skills

needed in the evaluation of the heart, lungs, lymphatic and peripheral vascular systems, and abdomen. It explores the relevant historical data, physical examinations, and basic interpretations of significant clinical findings. Correlation of understanding with the development of these anatomical areas is emphasized.

Prerequisites: PHPA-224 (CV PHPA), PHPA -225 (Renal-Pulm PHPA), PHPA -213 (GI PHPA), PATH-227 (Path Lab)

Co-requisite: DIAG-736 (Abdomen and Thorax – Lab), DIAG-226 (Case History)

Course Offered by: Clinical Sciences Department

Required Text: Bickley LS. Bate's Guide to Physical Examination and History. Philadelphia, PA: Lippincott, Williams & Wilkins; Latest edition (On reserve in library)
Class notes (available in the bookstore and on Canvas)

Recommended Text: LaBlond RF, et al., editors. DeGowin's Diagnostic Examination. 9th ed. New York: McGraw-Hill; 2008. (On reserve in library).

Reference Texts: Seidel HM, et al. Mosby's Guide to Physical Examination. 7th ed. St. Louis: Mosby; 2011.
Swartz MH. Textbook of Physical Diagnosis: History and Examination. 5th ed. Philadelphia: Saunders Elsevier; 2006.
Beers MH, et al., editors. Merck Manual of Diagnosis and Therapy. 18th ed. Whitehouse Station: Merck; 2006.

Materials: Course note packet for lecture – see lab syllabus for required lab equipment.

Method of Instruction: Lecture, reading assignments, handouts, discussions, active listening, fill-in notes in note packet

Evaluation/Grading Criteria:

2 Midterm exams	50%
Comprehensive Final Exam	<u>50%</u>
	100%

Quizzes available on Canvas are for review and practice purposes. They will not directly affect the course grade. Occasional quizzes may be given in class for attendance, for practice and/or for bonus points (announced at the time of the quiz).

Grades and the Grading System Final Grades are available online through the CAMS student portal. If there are any questions on grading procedures, computation of grade point average, or the accuracy of the grade report, please contact the Registrar's Office or the Office of Academic Affairs. Grades will be reported and evaluation will be based on the Academic Policies, Procedures, & Services. Please refer to Evaluation Policy (**Policy ID: OAA.0007**)

In order to maintain **Satisfactory Academic Progress**, a student must maintain a 2.0 or better in each and every course. **Any grade less than a C must be remedied by repeating the class.** Please refer to Satisfactory Academic Progress (**Policy ID: OAA.0006**)

Attendance: Please refer to Attendance Policy (**Policy ID: OAA.0002**)

Conduct and

Responsibilities: Please refer to the Personal Conduct, Responsibility and Academic Responsibility Policy (**Policy ID: OAA.0003**)

Make-up Exams: Please refer to Make-up Assessment Policy (**Policy ID: OAA.0001**)

Request for

Special Testing: Please refer to Request for Special Testing (**Policy ID: OAA.0004**)

Accommodation for Students with Disabilities:

If you have approved accommodations, please make an appointment to meet with your instructor as soon as possible. If you believe you require an accommodation, but do not have an approved accommodation letter, please see the Academic Counselor Lori Pino in the Office of Academic Affairs. Contact info: Lpino@lifewest.edu or 510-780-4500 ext. 2061. Please refer to Service for Students with Disabilities Policy (**Policy ID: OAA.0005**)

Electronic Course Management:

Canvas is LCCW's Learning Management System (LMS). Canvas will be used throughout

the quarter during this course. Lectures, reminders, and messages will be posted. In addition, documents such as the course syllabus and helpful information about the class project will be posted. Students are expected to check Canvas at least once a week in order to keep updated. The website address for Canvas is <https://lifewest.instructure.com/login/canvas> Please refer to the Educational Technologies Policy (**Policy ID: OAA.0009**)

Course Goals: The goal of this course is to prepare the student to be able to perform an examination of the abdomen, lungs, heart, peripheral vasculature and breasts, to understand proper instrumentation procedures, and to develop an understanding of examination findings associated with common visceral disorders in order to enhance the student's differential diagnosis skills.

Course Objectives:

- Considerations for choosing diagnostic equipment
- Vital signs: procedures; normal and abnormal values
- Abdominal examination
 - Sequence of examination
 - Basic anatomy; 4 quadrant and 9 region systems of describing the abdomen
 - Lighting requirements, gowning and draping procedures
 - Select inspection findings and their significance
 - Review parts of stethoscope
 - Auscultation procedures and significance of findings
 - Bowel sounds
 - Bruits
 - Friction rubs
 - Percussion of the abdomen
 - 5 percussion tones with normal and abnormal examples
 - Determining liver size (midclavicular and midsternal)
 - Stationary percussion for spleen
 - Significance of splenomegaly
 - Shifting dullness (percussion; large amounts of ascites) vs puddle sign (auscultation; sparse ascites)
 - Palpation of the abdomen
 - Superficial, rebound, deep
 - Voluntary vs involuntary guarding
 - Blumberg's and Rovsing's signs
 - Superficial vs deep abdominal masses
 - Normal organs that may exhibit tenderness on palpation
 - Palpation of the aorta
 - Direct and hooking methods of liver palpation
 - Select abnormalities of the liver
 - Murphy's sign: procedure and significance

- Palpation of the spleen
 - Capture and entrapment methods of kidney palpation
 - Causes for kidney enlargement
- Thoracic examination: lungs
 - Review basic anatomy of the thorax and lungs
 - Select thoracic inspection findings and their significance
 - Palpation of the thorax - procedures and significance of:
 - General palpation (masses and tenderness)
 - Tactile fremitus (significance of increased or decreased vibration)
 - Respiratory expansion (significance of decreased and/or asymmetrical expansion)
 - Percussion over the lung fields - procedures and significance of:
 - 5 percussion tones
 - Examples of pathologies causing flat, dull, resonant, hyperresonant or tympanic tone
 - Correlate percussion tones with expected increase or decrease of tactile fremitus for select pulmonary conditions
 - Diaphragmatic excursion - procedure and normal/abnormal excursion
 - Auscultation of the lungs - procedures and significance of:
 - Vesicular, bronchovesicular, bronchial and tracheal breath sounds
 - Abnormal breath sounds
 - Transmitted voice sounds (bronchophony, whispered pectoriloquy, and egophony)
 - Correlate with findings on tactile fremitus
 - Adventitious sounds (including crackles, rales, wheezes, rhonchi, pleural friction rubs)
 - Tracheal displacement and possible causes
 - Alterations of respiratory rate and rhythm
 - Review physical examination findings indicative of select pulmonary conditions
- Thoracic examination: heart
 - Review basic anatomy of the heart
 - Inspection:
 - Signs of cardiac dysfunction
 - Apical pulse
 - Palpation:
 - Intercostal spaces for excessive pulsations and thrills
 - Apical pulse
 - Dextra cordia and situs inversus
 - Percussion: normal dimensions of the heart and causes of cardiomegaly
 - Auscultation
 - Gowning procedures
 - Use of diaphragm and bell of stethoscope
 - Normal heart sounds (S1 and S2)
 - Aortic and mitral maneuvers: procedures and which sounds are detected with each maneuver
 - Extra heart sounds (S3 and S4)
 - Auscultation of the carotid arteries

- Murmurs: regurgitation vs stenosis
 - Select abnormal heart sounds and their significance
- Peripheral vasculature exam
 - Inspection
 - Palpation
 - Compare/contrast arterial vs venous occlusion
 - Characteristics of thrombophlebitis
- Pulses
- Jugular venous pressure (JVP): procedures for measuring and significance of elevated JVP
- Lymphatic examination (axillary and inguinal lymph nodes; lymphadenopathy and lymphedema)
- Breast examination
 - Characteristics and risk factors for breast cancer
 - Common breast masses
 - Steps in diagnosis of breast cancer

Student Learning Outcomes (SLO):

The student will be able to:

Unit 1: Vital signs & abdominal exam: (PLO 1)

1. Recall correct order of abdominal exam procedures.
2. Recognize select abdominal inspection findings.
3. Identify the significance of select inspection findings.
4. Recall procedures for auscultation of the abdomen, including bowel sounds, bruits and friction rubs.
5. Recall the normal rate of bowel sounds.
6. Recall the purpose of using the diaphragm vs the bell of the stethoscope.
7. Recognize the significance of bruits.
8. Recognize the significance of friction rubs.
9. Interpret abdominal auscultation findings as normal or abnormal.
10. Identify the significance of abnormal abdominal auscultation findings.
11. Recall the normal percussion tones of the abdomen.
12. Identify the significance of abnormal percussion tones.
13. Determine if the liver size is normal, enlarged or too small as determined through percussion of the midclavicular and midsternal lines.
14. Recall the procedures for percussion for the spleen.
15. Identify the normal and abnormal splenic percussion findings.
16. Recall common reasons for splenomegaly.
17. Recall the purpose of superficial abdominal palpation.

18. Recall the procedure for rebound tenderness.
19. Identify the locations and common causes for rebound tenderness.
20. Recognize the significance of Blumberg sign.
21. Recognize the significance of Rovsing sign.
22. Locate McBurney's point.
23. Recall the purpose of deep abdominal palpation.
24. Recall the procedures for palpation of the liver (direct method and hooking method).
25. Recognize the purpose of the Middleton maneuver used in the hooking method of liver palpation.
26. Identify if liver palpation findings are normal or abnormal.
27. Analyze examination findings to form a clinical impression of hepatic cirrhosis, hepatitis, or liver cancer.
28. Recall the procedure to detect Murphy's sign.
29. Recognize the significance of Murphy's sign.
30. Recall procedures for palpating for the spleen.
31. Identify the significance of a palpable spleen.
32. Recall how to palpate the aorta.
33. Identify the normal diameter of the aorta.
34. Recognize the significance of an enlarged aorta.
35. Identify the appropriate follow-up procedure to evaluate an enlarged aorta. (PLO 2)
36. Recognize organs that may be normally tender to palpation.
37. Recall the procedures for kidney palpation (entrapment and capture methods).
38. Recognize normal and abnormal kidney palpation findings.
39. Identify the significance of abnormal kidney palpation.
40. Recall common causes for kidney enlargement.
41. Recall how to perform Murphy's punch.
42. Recognize the significance of a positive Murphy's punch.
43. Recall procedures to test for ascites (shifting dullness and puddle sign).
44. Recall the amount of fluid indicated by a positive test for shifting dullness vs a positive puddle sign.
45. Recall the vital signs.
46. Analyze values for each of the vital signs to determine if they are normal or abnormal.
47. Recall the procedures to properly measure blood pressure.
48. Recall the reason for performing palpatory systolic.
49. Recognize the significance of an auscultatory gap.
50. Classify blood pressure measurements as low, optimal, normal, pre-hypertension, or high.
51. Recall how to diagnose hypertension.

Unit 2: Thoracic exam (lungs) (PLO 1)

52. Recognize select thoracic inspection findings.
53. Recall the procedures to evaluate tactile fremitus.
54. Identify causes for increased or decreased tactile fremitus.
55. Recall how to evaluate respiratory expansion.
56. Identify causes for decreased respiratory expansion.
57. Recall the procedures for percussion of the lung fields.
58. Recall the five percussion tones and give normal and abnormal examples of each.
59. Identify causes for abnormal thoracic percussion tones.
60. Recall the procedures for evaluating diaphragmatic excursion.
61. Determine if measurements for diaphragmatic excursion are normal or abnormal.
62. Recall the procedures for auscultating the lung fields.
63. Determine if breath sounds are normal or abnormal.
64. Recall the characteristics of vesicular, bronchovesicular, bronchial and tracheal breath sounds.
65. Associate abnormal breath sounds with select pulmonary pathologies.
66. Recognize adventitious breath sounds.
67. Associate select adventitious sounds with pathological causes.
68. Recall the procedures for auscultating transmitted voice sounds.
69. Identify pathologies associated with bronchophony, whispered pectoriloquy and egophony.
70. Recall characteristics of pulmonary consolidation.
71. Recall select causes of tracheal deviation.
72. Identify normal and abnormal respiratory patterns.
73. Identify select lung conditions based on physical examination findings.

Unit 3: Thoracic exam (heart & peripheral vasculature); lymph exam; breast exam (PLO 1)

74. Recognize thoracic inspection findings that suggest cardiac dysfunction.
75. Recall the normal location of the apical pulse.
76. Recognize the significance of a laterally shifted apical pulse.
77. Recognize palpation findings that suggest cardiac dysfunction.
78. Recall the procedures to estimate the size of the heart through percussion.
79. Recognize need to alter cardiac examination for individuals with dextra cordia or situs inversus.
80. Recall procedures for basic heart auscultation.
81. Correctly locate each of the cardiac auscultation areas.
82. Recall the procedures for the aortic maneuver.
83. Recall what sounds are accentuated by the aortic maneuver.
84. Recall the procedures for the mitral maneuver.
85. Recall what sounds are accentuated by the mitral maneuver.

86. Identify which heart sounds are normal and which are abnormal.
87. Recall the locations where S1 and S2 are best heard.
88. Recognize the significance of select abnormal heart sounds.
89. Differentiate physiological splitting of S2 from pathologic splitting of S2.
90. Recall the main causes for heart murmurs.
91. Identify which murmurs occur in systole and which occur in diastole.
92. Based on a description of a murmur, appropriately grade the murmur as 1-6/6.
93. Recall the correct procedures for examination of the peripheral vasculature
94. Recognize the characteristics of thrombophlebitis
95. Contrast the characteristics of arterial and venous occlusion.
96. Recall the procedures for measuring jugular venous pressure.
97. Recognize common causes for elevated jugular venous pressure.
98. Recognize the definition of lymphadenopathy.
99. Recognize the definition of lymphedema.
100. Based on a description of palpation findings, identify if a lymph node is likely normal, cancerous, infected or calcified.
101. Recognize important characteristics of breast cancer.
102. Differentiate cancerous masses from other common breast masses.
103. Recognize common risk factors for breast cancer. (PLO 3)

Program Learning Outcomes (PLO): Students graduating with a Doctor of Chiropractic degree will be proficient in the following:

1. **ASSESSMENT AND DIAGNOSIS:** An assessment and diagnosis requires developed clinical reasoning skills. Clinical reasoning consists of data gathering and interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. It is a dynamic process that occurs before, during, and after the collection of data through history, physical examination, imaging, laboratory tests and case-related clinical services.
2. **MANAGEMENT PLAN:** Management involves the development, implementation and documentation of a patient care plan for positively impacting a patient's health and well-being, including specific therapeutic goals and prognoses. It may include case follow-up, referral, and/or collaborative care.
3. **HEALTH PROMOTION AND DISEASE PREVENTION:** Health promotion and disease prevention requires an understanding and application of epidemiological principles regarding the nature and identification of health issues in diverse populations and recognizes the impact of biological, chemical, behavioral, structural, psychosocial and environmental factors on general health.
4. **COMMUNICATION AND RECORD KEEPING:** Effective communication includes oral, written and nonverbal skills with appropriate sensitivity, clarity and control for a wide range of healthcare related activities, to include patient care, professional communication, health education, and record keeping and reporting.
5. **PROFESSIONAL ETHICS AND JURISPRUDENCE:** Professionals comply with the law

and exhibit ethical behavior.

6. **INFORMATION AND TECHNOLOGY LITERACY:** Information literacy is a set of abilities, including the use of technology, to locate, evaluate and integrate research and other types of evidence to manage patient care.
7. **CHIROPRACTIC ADJUSTMENT/MANIPULATION:** Doctors of chiropractic employ the adjustment/manipulation to address joint and neurophysiologic dysfunction. The adjustment/manipulation is a precise procedure requiring the discrimination and identification of dysfunction, interpretation and application of clinical knowledge; and, the use of cognitive and psychomotor skills.
8. **INTERPROFESSIONAL EDUCATION:** Students have the knowledge, skills and values necessary to function as part of an inter-professional team to provide patient-centered collaborative care. Inter-professional teamwork may be demonstrated in didactic, clinical or simulated learning environments.
9. **BUSINESS:** Assessing personal skills and attributes, developing leadership skills, leveraging talents and strengths that provide an achievable expectation for graduate success. Adopting a systems-based approach to business operations. Networking with practitioners in associated fields with chiropractic, alternative medicine and allopathic medicine. Experiencing and acquiring the hard business skills required to open and operate an on-going business concern. Participating in practical, real time events that promote business building and quantifiable marketing research outcomes
10. **PHILOSOPHY:** Demonstrates an ability to incorporate a philosophically based Chiropractic paradigm in approach to patient care. Demonstrates an understanding of both traditional and contemporary Chiropractic philosophic concepts and principles. Demonstrates an understanding of the concepts of philosophy, science, and art in chiropractic principles and their importance to chiropractic practice.