

SYLLABUS

Name of Course: The Pathology of Infectious Diseases (PATH-217)

Length of Course: 4 units, 44 hrs. (4 hrs. lecture/week)

Course Description: The course is a study of infectious diseases. Attention is given to nomenclature, classification, symptomology, prevention and treatment of parasitic, viral, bacteria, and fungal infections.

Prerequisites: CHEM-133 PATH-132

Course Offered By: Basic Science Department

Required Text: Epidemiology and Prevention of Vaccine-Preventable Diseases
The Pink Book: Course Textbook - 12th Edition Second Printing
(May 2012)
<http://www.cdc.gov/vaccines/pubs/pinkbook/table-of-contents.html>

Recommended Text: Lippincott's Illustrated Reviews: Microbiology, Second Edition
Richard A Harvey PhD , Cynthia N Cornelissen Ph.D.
ISBN/ISSN: 9781608317332

Materials: Class notes (text of lectures plus review questions)

Method of Instruction: Lectures on power point slides available on Canvas, and supplemental handouts when/if needed.

Evaluation:

Grades: Grade is based on 2 written 50 question midterm examinations worth 50 points each, and a final exam worth 100 points. Exams may be a combination of objective (multiple choice, true/false, matching) and/or short essay questions. Letter grade corresponds to an adjusted percentage of points earned. Because quarter instructional hours vary due to holidays or special events, the instructor may expand or reduce the length of the final exam to accommodate this situation. The final exam will encompass both material covered since the last exam and cumulative material.

Grades and Method of Grading:

The final grade will be based on the following scale:

A	4.0 Superior work	90 - 100%
B	3.0 Above Average	80 - 89%
C	2.0 Average Work	70 - 79%
F	0.0 Must repeat the course	00 - 69%

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 student will learn about host parasite relationships that impact infectious diseases:

1) Transmission pathways; 2) pathogenesis, as well as the pathologic changes and clinical symptomatology that results; 4) factors that contribute to disease virulence, including the intensity of host inflammatory and immune responses.

The student will learn the significant, sometimes unique epidemiological features of selected infectious diseases caused by: viruses, bacteria, animal parasites, and fungi respectively, that affect different organ systems (e.g. respiratory, gastrointestinal, and genitourinary system), age group (childhood infections), or result from contact with animal vectors or reservoirs of infection

Course Schedule

Week 1

To explain:

- * Why chiropractors, as health care providers, need to understand infectious diseases
- * The important properties of infectious agents and the host defenses used against them;
- * The categories and characteristics of infectious agents and transmission
- * Cold and influenza viruses - their epidemiology, pathological manifestations, & control options

Week 2

To describe and explain the significance of the following respiratory infections caused by:

- * Pyogenic cocci - *Staphylococci*, *Streptococci*, & *Neisseriae*
- * Mycobacteria (typical and atypical TB), *Klebsiella*, *Legionella*, *Chlamydia*, & *Mycoplasma*
- * Dimorphic Fungi - *Coccidioides*, *Histoplasma*, & *Cryptococcus*

Week 3

to describe and explain the significance of the following viral infectious diseases of childhood:

- Measles Mumps Rubella

Week 4

to describe and explain the significance of the following viral infectious diseases of childhood:

- Polio, Chickenpox, Fifth disease, RSV
- Parainfluenza, Rotavirus, Diphtheria

Week 5

to describe and explain the significance of the following infectious diseases of childhood:

- * Bacterial - tetanus, pertussis (whooping cough), *Haemophilus influenzae*
- * Vaccines and how they work with our immune system

Week 6

to describe and explain the significance of:

- The alphabet soup of agents causing viral hepatitis - A, B, C, D, & E
- Sexually transmitted viral infections - Herpesviruses: HSV 1& 2, EBV, CMV

Week 7

to describe and explain the significance of:

- Discuss contraceptives versus barrier method
- Bacterial - Gonorrhea, Chlamydia, Syphilis
- Viral - Human papilloma viruses & cervical cancer,
- Protozoan - Trichomoniasis
- Bacterial – Chancroid

Week 8

to describe and explain the significance of infections typically transmitted via sexual contact:

- * HIV/AIDS

Week 9

to describe and explain the significance of diseases of the gastrointestinal tract that result directly or indirectly from contact with contaminated food or water, specifically focusing on:

- * Food poisonings caused by gram negative bacteria and viruses
- * *E. coli, Vibrio Salmonella, Norovirus*

Week 10

To describe and explain the significance of diseases of the gastrointestinal tract caused by gram negative bacteria:

- * *Shigella, Campylobacter Giardia lamblia, Cryptosporidium*
- * Zoonotic Diseases: lyme disease, rockymountain spotted fever, plague, malaria, rabies, Chagas

Week 11 Final Exam

PROCEDURES FOR REVIEWING EXAMS: The instructor has not authorized distribution of old midterm exams. Any possession of old exams is prohibited. A student may review his or her exam during office hours for two weeks following the exam (unless there is a shorter time period until the last scheduled office hour during the last week of classes.) Students may not review mid-term exams during final exam week. Possession of any exam other than during a review session constitutes unprofessional conduct.

Student Learning Outcomes

The student will be able to:

1. Distinguish between direct and indirect transmission of infectious agents as well as differentiate all modes of disease transmission. [PLO: 1,2,3]
2. Distinguish what diseases are prevented by vaccination and vaccination schedule recommend by the Centers for Disease Control. [PLO: 2,3,4,6]
3. Identify what is in the vaccine – toxoid, attenuated virus/bacteria, etc, and how it works. [PLO: 3,4,6]
4. Demonstrate the identification of disease states based on patient history, symptoms, age, activity, etc. [PLO: 1,2,3,6]
5. Describe why people experience some diseases, like colds and flu, repeatedly but others, like measles, only once when the immune response to each of these is strong and long lasting. [PLO: 1,2,3,4]
6. Evaluate why some diseases occur mostly in childhood, some in adulthood, and others may be a problem regardless of host age. [PLO: 1,2,3]

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.