

SYLLABUS for CCS Course Sequence (CPP518, CPP519, CPP520)

NAME OF COURSES: Clinical Case Scholarship (CCS) Level I, II, III

LENGTH OF COURSES: CCS-I, 10 hours, 0.5 units (1 hour lecture/wk)

CCS-II, 10 hours, 0.5 units (1 hour lecture/wk)

CCS-III, 10 hours, 0.5 units (1 hour lecture/wk)

DESCRIPTION OF COURSE SEQUENCE (CCS - I,II,III):

The goal of this course series is to introduce and teach students skills and tools necessary to write a clinical case study, beginning with a case summary in CCS-I and case brief in CCS-II. The regulatory requirements of review and approval by an Institutional Review Board are emphasized. Concepts of study design related to the stated clinical research question are emphasized. Collaborative scholarly clinical work with Health Center faculty advisors and college academic faculty is expected.

PREREQUISITES: CPP-215: CPP127 or CIL I, II and III. Students also need to be currently enrolled in Health Center I, II, III or IV

COURSE SEQUENCE OFFERED BY: Department of Chiropractic Philosophy & Principles, in conjunction with Health Center Advising Program and Life West Learning Resource Center.

INSTRUCTORS FOR COURSE SEQUENCE: TBD

REQUIRED READING: Various research articles, other academic papers, and instructions/guidelines posted on CANVAS (The LCCW online Learning Management System).

REFERENCE TEXTS / OTHER RECOMMENDED READING:

(NOTE: As a courtesy to the student, the following five selections are also kept on reserve at the Life Chiropractic College West (LCCW) Library circulation desk)

Evidence-Based Chiropractic Practice, 2007 – Michael T. Haneline

This paperback (453 pages) offers valuable information to help healthcare practitioners and students care for their patients as effectively and efficiently as possible. This essential book informs readers about the procedures involved in the practice of evidence-based chiropractic care, and provides background information that is necessary for obtaining and interpreting chiropractic evidence, as well as practical examples to assist with implementation. The book offers important information on understanding the content of research articles, including the basics of research design and biostatistics – information that is vital to rendering optimal patient care.

The Pocket Guide to Critical Appraisal, 1996 - Iain Crombie

This small paperback (66 pages) is published by the British Medical Journal and is written for the health professional. The book is organized in two parts: Chapters 1-5 provide introductory information on critical appraisal of the literature. Chapters 6-11 provide annotated check lists for critical appraisal for various article types. The book is written for the non-scientist. Technical jargon is minimized, but essential terms are defined.

How to Read a Paper: The Basics of Evidence Based Medicine, 1997 - Trish Greenhalgh

This paperback (196 pages) is published by the British Medical Journal and is intended for clinicians. It is much more in-depth than Crombie's pocket guide mentioned above. However, like Crombie's book, it avoids technical jargon. The author states her viewpoint quite nicely in the book forward " ... note that I am neither an epidemiologist nor a statistician but a person who reads papers and who has developed a pragmatic, (and at times unconventional) system for testing their merits... "

Interpreting the Medical Literature, 1993 – Stephen H. Gehlbach

This book is intended to provide clinicians with an approach to reading and understanding research articles in clinical journals, based on principles and a way of thinking that is primarily epidemiological. The book is intended for several layers of clinical learners. Students in the health professions, who are beginning to form reading habits, will benefit from a fundamental exposure to concepts of adequate study design, appropriate sample selection, and use of statistical inference. More seasoned clinicians should become more comfortable with important and complex concepts such as “selection bias” and “the null hypothesis”. Illustrations from published articles are used to enhance clinical applicability and relevance, and to give readers the opportunity to examine primary sources for themselves, practice their analytical skills, and formulate dissenting views. As with developing clinical skills, acquiring proficiency in reading the clinical science literature requires practice.

User’s Guides to the Medical Literature, 1993 to present - JAMA Education Series

This series of 19 articles focus on using the medical literature to solve real patient problems. Each article reflects an approach to medical practice that has been called ‘evidence-based medicine.’ This notion, more generally referred to as ‘evidence-based health care,’ involves training health care providers to access, summarize, and apply information from the literature to day-to-day clinical problems. The articles are excellent. While the clinical examples are those more commonly seen in medical practice, the principles have great application to chiropractic practice. The information we offer in this research course is designed to empower chiropractic students to take an evidence-based approach to chiropractic practice.

Method of Instruction: Lecture, discussion, group assignments and/or individual-directed assignment(s)

Evaluation: See individual course schedules for specific assignments. Total of 100% for each class, distributed among Canvas uploads, in-class assignments, and quizzes.

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	0 - 69%

MAKE-UPS, ATTENDANCE, CONDUCT AND RESPONSIBILITIES: College policy applies. See *The Life Chiropractic College Student Handbook*, pp. 25-32.

STUDENT LEARNING OUTCOMES FOR COURSE SEQUENCE (CCS - I, II, III):

At the completion of the CCS course sequence, the student should be able to:

- 1- Compare retrospective case study versus prospective case study and distinguish case study from time-series case study and case series (CCSI).
- 2- Explain when IRB review is required in clinical case-based studies (CCSI).
- 3- Review and evaluate series of patients' cases. [PLOs 1, 2, 3, 4, 6] (CCSI).
- 4- Identify a publishable patient case from their LCCW clinic patients (CCSI). [PLOs 1, 2, 3, 4, 5, 6, 8].
- 5- Evaluate the outcome of chiropractic care in their case (CCSI & CCSII).
- 6- Write a Complete, Concise management plan [PLOs 1, 2, 3, 4, 5, 6, 7, 8] (CCSII).
- 7- Effectively document and communicate the patient treatment plan (CCSII)
- 8- Demonstrate how philosophically based chiropractic is incorporated in the management plan of the case studies (CCSII). [PLOs 1, 2, 3, 4, 9].
- 9- Outline the process of designing and writing a publishable case study (CCSI, II & III). [PLOs 1, 2, 4, 6].
- 10- Design and compose a case summary (CCSI); case brief (CCSII) and publishable case study (CCSIII).
 - a. Apply knowledge and skills of information literacy to identify a clinical PICO question to be analyzed (CCSI)
 - b. Assemble appropriate information to construct the history, examination, treatment and results sections of a case brief (CCSII) and add this to an abstract, introduction, discussion, and conclusion sections (CCSIII) for a publishable clinical case study. [PLOs 1, 2, 4, 6]

- c. Acquire published articles that are needed to write an annotated bibliography and literature review suitable for a publishable case study (CCSII & III). [PLOs 1, 3, 4, 5, 6, 7, 8].
 - d. Document sources using the NLM (National Library of Medicine) citation format (CCSII&III).
- 10- Apply understanding of the peer review process in clinical research by identifying gaps and suggesting corrections in the peer review process of draft case studies (CCSII & CCSIII). [PLOs 1, 4, 6, 7].
- 11- Apply skills of communication by making an oral/visual presentation of a publishable complete case brief (CCSII) and case study (CCSIII) to an audience of peers, faculty and visiting scholars. [PLOs 4, 8].

Program Learning Outcomes (PLO): Students graduating with a Doctor of Chiropractic degree will demonstrate proficiency 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, and laboratory tests.
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 and technology literacy are manifested in an ability to locate, evaluate and integrate research and other types of evidence, including clinical experience, to explain and manage health-related issues and use emerging technologies appropriately.
7. **INTELLECTUAL AND PROFESSIONAL DEVELOPMENT:** Intellectual and professional development is characterized by maturing values and skills in clinical practice; the seeking and application of new knowledge; and the ability to adapt to change.
8. **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
9. **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.