New York Chiropractic College Masters of Science in
Clinical Anatomy Graduate Program Course Catalog
2013-2014
AST 6556 - Preparation as a College Educator 2 credits

Course Description: This interactive course will explore the elements of how to prepare and deliver courses at the college level. The content will include adult education theories, current educational research and course design. Class discussion and projects will include practical and theoretical aspects of course design including: parameters of learning objectives and syllabus design, decisions in course content, preparation and delivery, assessment design, analysis and grading and issues of instructional inclusiveness. Prerequisites: Entrance requirements.

CAN 5103 – Clinical Anatomy 2 credits

Course Description: This course is an in-depth examination of regional gross anatomy examined in greater detail than presented in the NYCC Doctorate of Chiropractic Program human gross anatomy sequence. Content will be presented regionally with emphasis on common clinical complaints associated with each region.

CAN 5104 - Advanced Embryology 3 credits

Course Description: This course is an in-depth examination of developmental anatomy, examined in greater detail than undergraduate courses. Content will be organized around development of major organ systems, with particular emphasis on developmental dysmorphologies that arise with abnormal growth and differentiation.

CAN 5203 - Teaching Methodology 2 credits

Course Description: Continuation of topics covered in Preparation as a College Educator. This interactive course will explore the elements of teaching and assessment in medical education. The content will build upon previous theories and teaching methods with an emphasis on effective teaching, skilled educational planning and informed assessment and evaluation. Prerequisite: Preparation as a College Educator

CAN 5201 – Special Topics – Neuroanatomy 2 credits

Course Description: This course is an in-depth examination of specific topics in neuroanatomy and neurophysiology, examined in greater detail than in the required prerequisite neurosciences sequence. Content will address clinical applications, with particular emphasis on developmental and acquired diseases and defects, and implications for health and well-being. Prerequisites: entrance requirements.

RES 5210 – Experimental Analysis 2 credits

Course Description: A didactic course designed to introduce the graduate student to typical methods in analyzing biomedical data using descriptive and inferential statistics. This course will help guide the graduate student in developing research studies, conducting statistical analyses and reading / evaluating the literature.
CAN 5301 - Special Topics – Histology 2 credits

Course Description: This course is an in-depth examination of specific topics in histology, examined in greater detail than in the prerequisite cell and tissue biology prerequisite. Content will be organized around tissues and organ systems, with particular emphasis on organogenesis, genetic control of development, developmental defects, and implications for postnatal health and well-being. When resources permit, hands-on preparation and examination of histological specimens will be included in the course. Prerequisites: entrance requirements.

CAN5303 – Cross Sectional Anatomy 2 credits

Course Description: This course reinforces the student's core content knowledge of gross anatomy by teaching them how to clinically problem solve using cadaveric cross sections, plastic models, MRI and CT imaging. The student will also be instructed in how to prepare anatomical cross sections from cadaveric specimens.

RES5310 – Experimental Design and Research Methodologies 2 credits

Course Description: A discussion meeting / on-line course designed to introduce the graduate student to typical biomedical research methods. This advanced course will require the student to critically review a number of current journal articles in their field of expertise.

CAN5402 – Special Topics – Embryology 2 credits

Course Description: This course is an in-depth examination of a specific topic or topics in embryology, examined in greater detail than in the previous developmental anatomy course. Content will be determined after the first meeting of the class.

CAN5403 – Advanced Special Dissections 2 credits

Course Description: A practical skill based course in which the students, under the direction of the course coordinator, will complete specific dissections upon a cadaver. The dissections will be prepared for the purpose of serving as demonstration specimens for the anatomy components of the D.C. and A.O.M. programs.

RES 5410 – Thesis I 2 credits

Course Description: This course is an intermediate step in the creation of the graduate student's thesis project. The graduate student will determine a hypothesis, perform a literature review and develop a research methodology to answer that question. Content will be based on the subject selected and will discuss the feasibility of the project, introduction, method, discussion, conclusion of the literature review, and sample, measures, design, procedures of the methodology. Prerequisites: RES 5208 - Experimental Design and Research Methodologies, RES 5308 - Experimental Analysis
RES5810 – Thesis II 2 credits

Course Description: This course is the second intermediate step in the creation of the graduate student's thesis project. After having previously formulated a research hypothesis, performed a literature review and developed a research method, the student will examine the research data and present the results analysis. Content will be based on the subject selected and will discuss the data preparation, descriptive statistics and conclusion validity. Prerequisites: RES 5208 - Experimental Design and Research Methodologies, RES 5308 - Experimental Analysis, RES 5410 - Thesis I

RES5910 – Thesis III 2 credits

Course Description: This course is the final step in the creation of the graduate student's thesis project. After having previously formulated a research hypothesis, performed a literature review, developed a research method, analyzed the research results, the student will finalize the project by developing an introduction, discussing the results, giving recommendations and concluding on the project. Content will be based on the subject selected and will include the creation of a title page, structured abstract, introduction, methods, results, discussion, recommendations, conclusion and references. Emphasis will be placed on the introduction and discussion portions of the thesis, as the methods and results have been previously assessed. Guidance will be given how to prepare for an oral defense of the project. Prerequisites: RES 5208 - Experimental Design and Research Methodologies, RES 5308 - Experimental Analysis, RES 5410 - Thesis I, RES 5810 - Thesis II

CAN5504 – Teaching Practicum 4 credits

Course Description: In the second year of the program, the student will participate in the teaching of professional level courses at New York Chiropractic College and other participating institutions. This course is inclusive of all the teaching the MSCA student has performed. The teaching experience will vary, depending upon course offerings at the participating institutions and NYCC, but will typically include gross anatomy, neuroanatomy, embryology and histology. The MSCA student will act as an assist/colead instructor under the guidance of the particular course coordinator. The student will also be required to perform several guest lectures. Prerequisites: AST 6556 Preparation as a College Educator

CAN 5601 - Thesis Research 1-6 credits

Course Description: Research toward a topic approved by the student's thesis committee. May be taken for 1 to 6 hours credit, up to a maximum of 6 hours credit. Prerequisite: approval of thesis director.