

## Clinical Research Coordinator Program++

### Associate in Applied Science

Minimum of 65 credit hours\*

If you're interested in working with doctors, research nurses and clinical research coordinators to perform studies involving research participants, then the clinical research program at Oklahoma City Community College is for you. At OCCC, you can earn an associate degree in applied science or a certificate of mastery in clinical research. The work you do in clinical research varies from employer to employer but will likely include tasks such as recruiting participants, obtaining informed consent, collecting participant data, entering that data and managing clinical research projects. The clinical research projects themselves are also varied and can range from clinical trials for new chemotherapy drugs, lupus medications, rheumatoid arthritis treatments and diabetes treatments to testing medical devices such as ventricular heart valves and new materials for wound healing. You must apply for admission to the clinical research program after being accepted for admission to OCCC. All program applications are reviewed by a selection committee. \*This program operates on a cohort-based model. The General Education, Support, and Life Skills courses may be taken at any time, but the cohort will complete the Clinical Research Coordinator courses at the same time. Contact the Division of Science, Engineering and Mathematics for more information: 405-682-7508.

### Course Sequence

Course ID	Course Name	Credits	Type	Min Gd
<b>Suggested Freshman 1st Semester</b>				
SCL 1001	Success in College and Life	1	Life Skills	
ENGL 1113	English Composition I	3	Gen Ed	
AHP 1013	Medical Terminology	3	Support	
BIO 1314	Human Anatomy and Physiology I	4	Support	
CRC 1103	Introduction to Clinical Research	3	Major	
<b>Suggested Freshman 2nd Semester</b>				
ENGL 1233	Technical Writing for the Workplace	3	Gen Ed	
BIO 1414	Human Anatomy and Physiology II	4	Support	
CRC 1203	Medical Ethics and Client Care	3	Major	
CRC 1303	Clinical Trials and Research Regulations	3	Major	
CHEM 1123	Survey of General, Organic, and Biochemistry	3	Support	
<b>Suggested Freshman Summer Semester</b>				
CRC 1503	Clinical Trials and Research Internship I	3	Major	
CRC 1112	Vital Signs and Venipuncture	2	Major	
<b>Suggested Sophomore 1st Semester</b>				
CRC 2103	Clinical Research Design	3	Major	
CRC 2003	Clinical Database Applications	3	Major	
CRC 2203	Pathophysiology	3	Major	
MATH 2013	Introduction to Statistics	3	Gen Ed	
HIST 1483	U.S. History to 1877	OR	Gen Ed	
HIST 1493	U.S. History 1877 to Present	3	Gen Ed	
<b>Suggested Sophomore 2nd Semester</b>				
CRC 2113	Clinical Research Site Management	3	Major	
CRC 2313	Clinical Protocol Design	3	Major	
CRC 2213	Pharmacology for Clinical Research	3	Major	
POLSC 1113	American Federal Government	3	Gen Ed	
COM 1123	Interpersonal Communications	3	Gen Ed	

### Course Grouping

Major Courses: (32 credits hours) Clinical Research Coordinator: CRC 1103, CRC 1112, CRC 1203, CRC 1303, CRC 1503, CRC 2003, CRC 2103, CRC 2113, CRC 2203, CRC 2213, CRC 2313

General Education Courses: (18 credit hours) English: ENGL 1113, ENGL 1233; History: HIST 1483 or HIST 1493; Political Science: POLSC 1113; Communications: COM 1123; Mathematics: MATH 2013

Life Skills Courses: (1 credit hour) Life Skills: SCL 1001

Support Courses: (14 credit hours) Allied Health: AHP 1013; Biological Sciences: BIO 1314 and BIO 1414; Chemistry: CHEM 1123

### Program Notes

Notes: This Technical and Occupational program is designed to prepare students to enter the job force following completion. See Technical and Occupational Programs in the general information section of the catalog.

++Special Admission Procedures

You must apply for admission to the clinical research program after being accepted for admission to OCCC. All program applications are reviewed by a selection committee.

\*This program operates on a cohort-based model. The General Education, Support, and Life Skills courses may be taken at any time, but the cohort will complete the Clinical Research Coordinator courses at the same time. Clinical Research Coordinator courses will be offered when at least twelve students are identified from individuals in the industry or those interested in working in the industry. Individuals wishing to enroll in the program will be on a waiting list until the time when the cohort number is met. Once the number is met, these students will move through the program together, completing the core program courses at the same time. Contact the Division of Science, Engineering and Mathematics for more information: 405-682-7508.

## Degree Program Course Descriptions

**AHP 1013 - Medical Terminology**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures*

3 Credits After studying the root words, prefixes, and suffixes from which medical terms evolve, the student will correctly spell medical terms, define terms commonly used in medical fields, and determine the meaning of unfamiliar medical terms.

**BIO 1314 - Human Anatomy and Physiology I**

*Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0103 or adequate math placement. An adequate biology placement test score or BIO 0123 or a college-level biological science class.*

4 Credits Through a systematic study of the structure and function of the human body, its cells, tissues, organs and systems, the student will identify and describe basic anatomical structures and fundamental physiological processes that occur in health and disease for the major body systems. Laboratory work which requires dissection is an integral and required part of the course.

**BIO 1414 - Human Anatomy and Physiology II**

*Prerequisites: BIO 1314 with a grade of "C" or higher*

4 Credits With Human Anatomy & Physiology I as a foundation, the student will advance his or her study of the structure and function of the human body and will identify and describe more detailed anatomical structures and more comprehensive physiological processes that occur in health through a systematic survey of the major body systems. Laboratory work which requires dissection is an integral and required part of the course.

**CHEM 1123 - Survey of General, Organic, and Biochemistry**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0313 or adequate math placement.*

3 Credits This course is designed for nursing and allied health programs which do not require General Chemistry I for science majors. This course is also appropriate for individuals interested in a general overview of chemistry. The course covers selected topics in general chemistry including unit conversions, atomic structure, chemical bonding, acids, bases, pH, chemical equilibrium, electrolytes, and properties of solutions. The course also introduces topics from organic and biochemistry. The relationship between chemical principles and

human health is emphasized throughout the course.

**COM 1123 - Interpersonal Communications**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures*

3 Credits The student will be able to identify why certain things happen as they do when two or more individuals come together to communicate for a specific purpose. The student must attest to his or her ability to understand the principles of interpersonal communication with emphasis on dyads, small groups, analysis of communication models and nonverbal communication, applying understanding to the major types of interpersonal communication problems in the work environment and in daily human relations.

**CRC 1103 - Introduction to Clinical Research**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; Admission to the CRC Program*

3 Credits The student will demonstrate knowledge of the history of human subject research, evolution of rules protecting human subjects, roles of the clinical research teams, clinical trial phases, and responsibilities of clinical research organizations.

**CRC 1112 - Vital Signs and Venipuncture**

*Prerequisites: BIO 1414; Admission to the CRC Program*

2 Credits The student will 1) successfully measure blood pressure, pulse rate, and temperature, 2) draw intravenous blood, 3) perform human tissue and fluid storage procedures, and 4) utilize universal precautions for handling biological materials.

**CRC 1203 - Medical Ethics and Client Care**

*Prerequisites: CRC 1103; Admission to the CRC Program*

3 Credits The student will be able to describe the fundamentals of ethical principles involving human research subjects, understand informed consent and the role of the Internal Review Board, and identify vulnerable populations.

**CRC 1303 - Clinical Trials and Research Regulations**

*Prerequisites: CRC 1103; Admission to the CRC Program*

3 Credits The student will receive an overview of federal and international

guidelines governing clinical research and drug trials, including Good Clinical Practices and International Council on Harmonization guidelines. An emphasis will be placed on understanding of research organization compliance, responsibilities of the Internal Review Board and the Health Insurance Portability and Accountability Act (HIPAA). The student will identify and complete required regulatory forms, define human subject protection guidelines, compare federal versus international guidelines for clinical research and discuss conflict of interest issues.

**CRC 1503 - Clinical Trials and Research Internship I**

*Prerequisites: CRC 1203; CRC 1303; Admission to the CRC Program*

3 Credits Students will shadow clinical research teams for four weeks at a private or university clinical research facility. Topics learned in the classroom will be demonstrated in an actual clinical research setting, giving the student exposure to a real-world setting while learning practical applications.

**CRC 2003 - Clinical Database Applications**

*Prerequisites: CRC 1103; Admission to the CRC Program*

3 Credits The student will demonstrate mastery of the concepts of clinical research data management systems, quality assurance, data confidentiality and security, accurate preparation of case reports.

**CRC 2103 - Clinical Research Design**

*Prerequisites: CRC 1203; CRC 1303; Admission to the CRC Program*

3 Credits Students will acquire a basic knowledge of research design methodologies, data organization and presentation, participant eligibility, adverse event documentation, site visit and audit preparation, and budget design.

**CRC 2113 - Clinical Research Site Management**

*Prerequisites: CRC 2103; Admission to the CRC Program*

3 Credits The student will acquire a basic knowledge of research site organization, operation and management. The student will learn the process involved in grant applications, study initiation, documentation requirements, and site evaluations. Emphasis will be placed on defining process flow and interactions with Institutional Review Boards, sponsors, regulators, investigators, and the community.

**CRC 2203 - Pathophysiology**

*Prerequisites: CHEM 1123; BIO 1414; AHP 1013; Admission to the CRC Program*

3 Credits The student will utilize critical thinking models to understand the dynamic aspects of human health and disease processes. The student will develop a foundational knowledge of the pathogenesis and clinical manifestation of disease in order to work effectively with subject data and communicate with other clinical research professionals.

### **CRC 2213 - Pharmacology for Clinical Research**

*Prerequisites: CHEM 1123; BIO 1414; Admission to the CRC Program*

3 Credits The student will correctly spell names of major drugs, place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names. The student will identify and discuss the purpose of nutritional products, blood modifiers, hormones, diuretics, diabetes medications, cardiovascular agents, respiratory drugs, and gastrointestinal agents.

### **CRC 2313 - Clinical Protocol Design**

*Prerequisites: CRC 2103; CRC 2113; Admission to the CRC Program*

3 Credits Through study, discussion, and classroom activities the student will identify different research designs, master the rules for writing protocols, understand ethical issues involved in research protocol design, and develop the skills to design data collection forms.

### **ENGL 1113 - English Composition I**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures*

3 Credits The student will write well-developed compositions which demonstrate the principles of unity, coherence, and organization and which contain specific details and vivid language. The students will locate library material and incorporate researched materials into compositions.

### **ENGL 1233 - Technical Writing for the Workplace**

*Prerequisites: ENGL 1113 or ENGL 1103; MATH 0203 College Prep Math II or adequate Math Placement Test Score*

3 Credits This course will expose students to technical communication and will allow students to practice professional methods of writing in the workplace. In addition to constructing technical documents appropriate for use in professional and job-related environments, students will learn about rhetorical methods for presenting technical information in ethical and formal prose designed for clear and effective communication with employers and colleagues. This course will equip the student with written and oral communication skills necessary for sharing information

and discussing content in professional settings; developing an awareness of technical genres; utilizing technological platforms for constructing documents; using visuals and graphics professionally; writing professional correspondence; constructing reports; designing project proposals; and composing instructions. This course satisfies the computer proficiency requirement.

### **HIST 1483 - U.S. History to 1877**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures*

3 Credits After analyzing events in American history from 1400 to 1877 in such areas as revolution, geographic and social mobility, political reform, government precedents and war, students will be able to identify patterns of present day mobility, describe governmental operations in their society and help resolve conflict in society based on the student's search for change, precedents, and conflict in the American past. A general education requirement.

### **HIST 1493 - U.S. History 1877 to Present**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures*

3 Credits After analyzing events in American history from 1877 to the present in such areas as geographic and social mobility, political reform, government precedents and war, students will be able to identify patterns of present day mobility, describe governmental operations in their society and help resolve conflict in society based on the student's search for change, precedents, and conflict in the American past. A general education requirement.

### **MATH 2013 - Introduction to Statistics**

*Prerequisites: MATH 0313 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures*

3 Credits The student will solve problems applying the concepts of random sampling, elementary probability, testing hypotheses, descriptive measures, chi-square, regression and correlation, and analysis of variance.

### **POLSC 1113 - American Federal Government**

*Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures*

3 Credits A study of the principles, structure, processes and functions of the United States federal government.

### **SCL 1001 - Success in College and Life**

*Prerequisites: ENGL 0106 or adequate reading/writing assessment scores*

1 Credit Students will learn best practices for academic, career, and personal success. Students will discover their individual strengths, interests, and values to create a personalized plan; select and utilize resources that are applicable to their growth and success; and engage as active and responsible members of the academic community. This course should be taken during a student's first semester of college work at Oklahoma City Community College and is a required course in degree plans to satisfy the Life Skills requirement.