ROCHESTER COMMUNITY AND TECHNICAL COLLEGE COMMON COURSE OUTLINE

Course discipline/number/title: BIOL 1215: Anatomy and Physiology of the Cardiovascular and Lymphatic Systems

A. CATALOG DESCRIPTION
1. Credits: 1
2. Hours/Week: 3 hours lecture and 2 hours lab per week for approximately 6-8 weeks
3. Prerequisites (Course discipline/number): High School Chemistry of CHEM 1101 or equivalent and High School Biology or BIOL 1101 or BIOL 1107, or BIOL 1110 or equivalent
4. MnTC Goals (if any): NA

This course covers the anatomy and physiology of cardiovascular and lymphatic systems. College-level reading and writing skills and working knowledge of elementary algebra.

B. DATE LAST REVISED (Month, year): April, 2007

C. OUTLINE OF MAJOR CONTENT AREAS:
Students will demonstrate basic knowledge, understanding, ability to apply and analyze concepts and solve problems in the relationship of anatomy and physiology of the following areas and body systems. The student will use information from the prerequisite courses in their process.

1. Cardiovascular System
   a) Cardiac anatomy and physiology
   b) Cardiac conduction – ECG, cardiac cycle
   c) Fetal and postnatal circulation
   d) Maintenance and control of blood pressure
   e) Lymphatic system, interstitial fluid, lymph
   f) Hematology - blood composition and histology, hemostasis, blood groups

Each student will dissect a sheep heart and the circulatory system of the fetal pig to understand the basic cardiovascular anatomy and the blood supply of the body's major organ systems. Other laboratory activities this semester involve physiological studies and analysis of data related to cardiac output, blood pressure and electrocardiograms.

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
1. Vocabulary
2. Anatomy and histology
3. Physiological principles
4. Application of the knowledge to human conditions

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
Methods may include any of the following:
1. Laboratory reports and/or quizzes
2. Objective and/or subjective tests
3. Laboratory practical tests
4. Assignments
5. Essay tasks
6. Group work/projects
7. Attendance (especially laboratory attendance)

G. RCTC CORE OUTCOME(S) ADDRESSED:
☐ Communication ☐ Global Awareness/Diversity
☐ Critical Thinking ☐ Personal/Professional Accountability

H. SPECIAL INFORMATION (if any):

The initial lab session explains and familiarizes the student with general safety hazards and safety equipment in the lab. During the pre-lab discussion, the hazardous characteristics of any materials used during the lab are discussed. In addition, if the lab involves any potentially infectious material, the students will be instructed on the proper use and disposal. The instructor will direct all students to wear necessary protective equipment while working with any hazardous chemicals. A copy of Material Safety Data Sheets for chemicals used is available in the lab.