

**Course Objectives/Course Outline**  
**Spokane Community College**

---

---

**Course Title:** Cardiovascular Physiology

**Prefix and Course Number:** ECHO 138

---

**COURSE DESCRIPTION:**

An advanced study of normal cardiovascular physiology. Presented in a series of physician lectures and lab demonstrations with applications in Invasive and Noninvasive Cardiology.

**Course Learning Outcomes:**

**By the end of this course, a student should be able to:**

- Describe the physical factors which effect blood circulation.
- Review electrophysiology and how it relates to the ECG.
- Explain and solve problems relating to the hemodynamics of blood flow.
- Relate the physical principles of the heart as a pump.
- Describe the physical principles related to arterial blood flow.
- Describe the regulation of blood flow, cardiac output, and neurologic effects.

**COURSE OUTLINE:**

- I. The Circuitry
- II. Electrophysiology
- III. Cardiac Pump
- IV. Regulation of Heartbeat
- V. Hemodynamics
- VI. Arterial System
- VII. Microcirculation
- VIII. Peripheral Circulation
- IX. Cardiac Output
- X. Coronary Circulation
- XI. Special Circulations
- XII. Interplay of Factors in Control of the Circulation