

Print Date: 6/3/15  
**Course Objectives/Course Outline**  
**Spokane Community College**

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**Course Title:** Research Methods and Biostatistics  
**Prefix and Course Number:** ECHO 255

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This course will discuss the basic principles of epidemiology and descriptive biostatistics as they apply to echocardiography and vascular technology. Topics include basic statistics, disease occurrence and recurrence, patterns and trends in a population, and interpretation of results.

**Course Learning Outcomes:**

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

- Describe the basic principles of epidemiology and biostatistics.
- Apply epidemiologic and biostatistical processes and principles to the fields of echocardiography and vascular technology.
- Use statistical methods to analyze cardiovascular diseases and diagnosis.
- Describe disease occurrence and recurrence, patterns and trends and interpretation of these measures as they relate to cardiovascular disease.

**Course Outline:**

- I. Introduction to basic statistics
- II. Basic principles of epidemiology and biostatistics
- III. Application of epidemiology and biostatistics to cardiovascular disease states.
- IV. Application of other statistical methods to cardiovascular diseases and diagnosis.
- V. Description and interpretation of disease occurrence and trends in cardiovascular diseases.