

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

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**Course Title: PVDI Technical Skills Lab**

**Prefix and Course Number: RT 315**

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**Course Learning Outcomes:**

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

- Demonstrate how to prepare and calibrate a pulmonary function laboratory
- Demonstrate how to perform a flow-volume loop
- Demonstrate how to perform nitrogen washout for FRC measurement
- Demonstrate how to perform body plethysmography
- Demonstrate how to perform a single-breath oxygen test for measuring distribution
- Demonstrate how to perform a single breath DLCO diffusion study

**Course Outline:**

- I. Preparation and calibration
  - A. Flow sensors
  - B. Pressure transducers
  - C. Plethysmograph leakage
- II. Flow/Volume loop
  - A. ATS acceptability standards
  - B. ATS reproducibility standards
- III. FRC by nitrogen washout
  - A. ATS acceptability standards
  - B. ATS reproducibility standards
- IV. FRC by plethysmography
  - A. ATS acceptability standards
  - B. ATS reproducibility standards
- V. Single breath diffusion
  - A. ATS acceptability standards
  - B. ATS reproducibility standards
- VI. Fowler's distribution test