

Course Objectives/Course Outline
Spokane Community College

Course Title: Fundamentals of Spirometry Technical Skills Lab

Prefix and Course Number: RT 255

Course Learning Outcomes:

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

- Assemble and calibrate a spirometer
- Perform a non-forced vital capacity calculating all results
- Perform a forced vital capacity calculating all results
- Perform maximum voluntary ventilation
- Perform flow-volume loops

Course Outline:

- I. Spirometer preparation
 - A. Assembly
 - B. Cleaning
 - C. Calibration
- II. Non-forced spirometry
 - A. Measure static lung volumes
- III. Forced spirometry
 - A. Measure forced vital capacity
 - B. Calculate
 1. FVC
 2. FEV1
 3. FEV1 / FVC
 4. FEF200-1200
 5. FEF25-75%
- IV. MVV
 - A. Measure MVV
 - B. Calculate MVV
- V. Flow-Volume loop
 - A. Perform F-V loop
 - B. Achieve ATS acceptability standards
 - C. Achieve ATS reproducibility standards