

## Elective Description

**Campus:** Southeast (Fargo)

**Elective/Experience Title:** Pulmonary Medicine

**Location of Elective:** Sanford Health, Fargo

**Department:** Internal Medicine

**Course Number:** IMED 9205

**Preceptor(s):** Venkatkiran Kanchustambham, MD

**Period(s) Offered:** All

**Number of students per period:** 1

**Course Prerequisites:** none

**Revised Curriculum Phase(s):** 2 and 3

**Purpose:** To increase the student's clinical skills and knowledge in pulmonary medicine.

**Objectives:** Following successful completion of this elective, the student will be able to:

1. Perform an appropriate bedside history and physical examination of chest disorders including the ability to differentiate between the normal physical exam and abnormal findings. *(Year 4-01)*
2. Form an appropriate differential diagnosis and choose a most likely diagnosis for chest diseases as appropriate for the fourth-year student. *(Year 4-03)*
3. Discuss normal/abnormal lung structure, lung physiology/pathophysiology, etiologies, and pathologic mechanism of lung diseases.
4. Interpret lung images including chest x-ray, computed tomography, and angiography. *(Year 4-04)*
5. Interpret pulmonary function tests including exercise physiology and apply findings to pulmonology cases. *(Year 4-04)*
6. Describe the indications for pulmonary medicine procedures including thoracentesis, pulmonary arterial catheterization, chest thoracotomy and bronchoscopy. *(Year 4-04, Year 4-16)*
7. Discuss the basic principles of ventilator management. *(Year 4-16)*
8. Complete all interactions with the patient, family and medical team in a professional manner. *(Year 4-14)*
9. Communicate effectively with patients, family members, staff and the preceptor. *(Year 4-06)*

**Instructional Activities:** During this elective, the student will be involved in/experience:

1. Daily morning work rounds
2. Formal lectures covering: ARDS, pneumonia, asthma, pulmonary embolism, COPD, pleural effusion, lung cancer, pulmonary function tests, and tuberculosis.
3. Review of patient specimens, ancillary tests, and images with the appropriate related specialists.
4. Management of service patients with supervision.
5. Rotation through the pulmonary function laboratory

**Criteria for Grading:** During and following this elective, the preceptor will:

1. Utilize the standardized UNDSMHS senior elective evaluation form.
2. Assess by direct observation the student's knowledge of pulmonary medicine through the student's participation in didactic sessions and direct discussion of case studies with the student. *(Objective 3)*
3. Assess by direct observation the student's ability to perform a pulmonary history and physical examination. *(Objective 1)*
4. Assess by direct observation or review of written work the student's ability to form an appropriate differential diagnosis and select a most likely diagnosis for chest diseases. *(Objective 2)*
5. By direct observation and review of written work evaluate the student's ability to select and interpret the appropriate diagnostic or therapeutic studies and/or procedures (including PFTs, thoracentesis, pulmonary arterial catheterization, chest thoracotomy and bronchoscopy) for patients with chest diseases. *(Objective 4, 5, 6)*
6. During discussion with the student evaluate the student's knowledge of the principles of ventilator management. *(Objective 7)*
7. Assess by direct observation the student's bedside manners and professionalism. *(Objective 8)*
8. Assess by direct observation the student's communication skills with patients, staff, and the preceptor. *(Objective 9)*