

## Elective Description

**Campus:** Southwest (Bismarck)

**Elective/Experience Title:** Clinical Pathology

**Location of Elective:** Sanford Health System – Bismarck, ND

**Department:** Pathology

**Course Number:** PATH 9101

**Preceptor(s):** Sri Krishna Chaitanya Arudra, MD & Margaret Lawless, MD

**Period(s) Offered:** All

**Number of students per period:** 1 per period

**Course prerequisites:**

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

**Purpose:** To provide education and experience in clinical pathology and laboratory medicine.

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

1. Describe the role of surgical pathology in diagnosis and management of patient care.
2. Demonstrate knowledge of the subsections of the clinical laboratory and of basic instrumentation and methodologies, and explain how the medical team uses lab services including chemistry, blood bank, microbiology, hematology, clinical microscopy, cytology, and HLA tissue typing.
3. Formulate diagnostic management plans to include a logical sequence of ordering laboratory tests and modifications based on their interpretation.
4. Discuss the role, processes, and value of the hospital autopsy pathology service (and an optional state medical examiner experience, if selected).
5. Describe the impact of medical informatics, computers, and information systems in the modern clinical laboratory.

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

1. At the onset of the elective, the student will be asked to prioritize for discussion interests in the disciplines of surgical and clinical pathology.
2. Providing interpretation of surgical pathology cases at our daily conference.
3. Identifying and interpreting abnormal laboratory tests from all areas of the clinical laboratory.
4. Attending selected teaching autopsy case if available (and, by appointment, experiencing a state medical examiner autopsy if available).
5. Actively participating in all subsections of the clinical laboratory including chemistry, blood bank, microbiology, hematology, clinical microscopy, cytology, and HLA tissue typing.
6. Completing all readings as assigned, designed to enhance and reinforce various topics relevant to pathology and the individual student's experiences and interests.

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

1. Utilize the standardized UNDSMHS senior elective evaluation form.
2. Evaluate by direct observation the student's ability to recognize basic histology and provide interpretation of gross and microscopic surgical pathology specimens.
3. Assess by direct observation the student's ability to relate pathophysiological processes with laboratory abnormalities and to discuss appropriateness of laboratory tests and their interpretation.
4. Judge the engagement of the student in the entire elective as demonstrated by attendance; active questioning; completion of assigned readings; and ability to describe the types of services, methodologies, computerized enhancements, and limitations of the various subsections of a modern clinical laboratory.
5. Evaluate the content and communication quality of the student's presentations to conferences and tumor boards.