

## Elective Description

**Campus:** Northeast (Grand Forks)

**Department:** Pathology

**Elective/Experience Title:** Forensic & Specialized Pathology

**Course Number:** PATH 9303

**Location of Elective:** Grand Forks, ND

**Preceptor(s):**

1. Mary Ann Sens, MD, PhD (UNDSMHS; Grand Forks)
2. Dr. Susan Roe (UNDSMHS; Grand Forks)
3. Other pathology faculty as appointed to department or those with affiliations with UNDSMHS.

**Period(s) Offered:** All periods

**Course prerequisites:**

**Number of students per period:** 2 student/period at Grand Forks site

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

**Purpose:** This elective is designed to provide an advanced level of active clinical learning in death investigation, forensic pathology, cardiac pathology and other subspecialty pathology. Students will have responsibilities in death investigation and certification, autopsy pathology and specialty (i.e. cardiac, neonatal, neuropathology), injury mechanism and public health / hospital quality assurance of autopsy studies. UNDSMHS students will complete basic death investigation and certification standards to allow appointment as a ND County Coroner in future clinical practice.

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

1. Demonstrate knowledge and understanding of autopsy pathology; understand and explain autopsy need, performance and expectations to family members.
2. Formulate quality review of pre and post mortem diagnosis on patients; contribute to quality assurance programs within health systems.
3. Understand death classification, both manner and cause of death. Correctly formulate cause of death for death certification; gain ability to correctly file death certificates and variations that may exist within state laws.
4. Document injury patterns and demonstrate a basic knowledge of injury pattern interpretation. Understand and correctly interpret basic pre and post-mortem changes.
5. Participate in death investigation and understand for both ND and MN law, which cases must be reported and how to effect reporting. Gain skills needed for future appointment as coroner / deputy coroner in North Dakota.
6. Participate in autopsies from natural and non-natural causation, including selected scene investigation, gross autopsy and microscopic review.
7. Write at least one full autopsy and disease process review.
8. Prepare and present one topic in death investigation and/or disease pathology from autopsy study.
9. Select and order appropriate ancillary testing at autopsy.
10. Participate in selected specialized pathology experiences, such as cardiac pathology (if rotation to Jesse Edwards Pathology center is elected); neuropathology, placental or other pathology as case load presents.
11. Perform and preliminary interpret frozen section and rapid consultation as appropriate.
12. Coordinate and understand tissue and organ donation protocols on appropriate cases. Understand permissions and time restrictions in organ and tissue donation.

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

1. Reading of standard forensic pathology, death investigation and appropriate subspecialty texts (such as cardiac, neonatal, placental, neuropathology) related to autopsy and case investigation in support of clinical decision making and case evaluation.
2. Discussion of cases, review of gross, scene, microscopic and appropriate ancillary testing for autopsy with attending pathologists, health care providers and peers.
3. Review and summarize medical records and scene investigation relative to death investigation.
4. Review and summarize medical records appropriate to autopsy performance. Correlate expected medical conditions with anatomic findings at autopsy.
5. Informal didactic teaching related to autopsy performance and interpretation.
6. Case review and/or presentation of completed autopsy report or aspect of death investigation. The student and attending pathologist will select topic within first 10 days of rotation and student will prepare review and presentation as part of course evaluation mechanism.
7. Review of a variety of on-line and electronic resources regarding pathology and death investigation. Complete self-assessment modules for major learning areas.
8. Accompany Forensic pathologist to court related proceedings including depositions, pre-trial conferences and trials.

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

1. Utilize the standardized UNDSMHS senior elective evaluation form.
2. Judge by direct observation the clinical skills of student regarding assimilating historical, scene and autopsy findings.
3. Evaluate by direct observation the students assessment of death investigation and certification; evaluate student interaction with team members, family and additional organizations / individuals involved in death investigation.
4. Judge the students ability to work as a member of a death and specialized pathology medical team in evaluation and presentation of findings.
5. Judge by direct observation and audience evaluation the students summary conference.
6. Judge by direct observation the students ability to present cases and integrate, assess and learn new information.
7. Submit a summative evaluation on a form approved by CEC.