


Elective Description

Campus: ALL (Grand Forks)

Elective/Experience Title: Research in Biomedical Sciences

Department: Biomedical Sciences

Course Number: BIMD 9502

Location of Elective: UND SMHS Department of Biomedical Sciences – Grand Forks, ND

Preceptor(s): Departmental faculty (choice depending upon field of interest and availability)

Educational Director: Colin K. Combs, PhD

Period(s) Offered: Contingent upon negotiations between student and faculty and with the concurrence of the department chairman.

Number of students per period: Contingent upon negotiations between student and faculty and with the concurrence of the department chairman.

Purpose: To introduce the student to experimental procedures, hypothesis testing, and data analysis in biomedical science research.

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

1. Understand experimental design; that is, to be able to address a research question or hypothesis. (1.1, 1.3, 1.6,
2. Understand and exhibit competency in performing experimental procedures (competency 3.6).
3. Understand and exhibit competency in analysis of experimental findings (competency 1.6).
4. Understand and exhibit competency in communication of research findings (competency 1.8).

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

1. Directed readings and discussion of relevant scientific literature.
2. Working at the laboratory bench with direct instruction from faculty and/or experienced lab personnel.
3. Performing experimental procedures.
4. Experimental design and analysis.
5. Oral and written communication of experimental findings.

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

1. By direct observation evaluate the student's ability to formulate an experimental design sufficient to address the research question or hypothesis (objective 1).
2. By direct observation evaluate the student's ability to successfully perform experimental procedures (objective 2).
3. By direct evaluation of written or oral presentations and discussion with the students evaluate the student's ability to analyze experimental findings (objective 3).
4. Evaluate the student's ability to communicate experimental findings by evaluating written and oral presentations (objective 4).
5. Utilize the standardized UNDSMHS senior research elective evaluation form.