

# Minnesota State University Moorhead

## **BCBT 477: Biotechniques: Proteomics and Advanced Protein Expression**

### **A. COURSE DESCRIPTION**

Credits: 2

Lecture Hours/Week: 2

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites:

This course requires the following prerequisite

CHEM 405 - Biochemistry Laboratory I

Corequisites: None

MnTC Goals: None

Introduction to proteomics and recombinant protein expression. Students will study advanced techniques involved in proteomics. Students will also study and work with expression of recombinant fusion proteins in bacteria or mammalian cultured cells. Includes advanced chromatography and use of automated chromatography systems including FPLC and HPLC.

**B. COURSE EFFECTIVE DATES:** 08/25/2008 - Present

### **C. OUTLINE OF MAJOR CONTENT AREAS**

### **D. LEARNING OUTCOMES (General)**

1. Students will have advanced understanding of working with proteins from a crude mixture.
2. Students will plan and execute advanced protein expression and purification strategies.
3. Students will understand how to prepare and run an automated chromatography system.

### **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

### **G. SPECIAL INFORMATION**

None noted