## Minnesota State University Moorhead

# **BIOL 440: Middle School/Secondary Science Teaching Methods**

#### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Materials and methods appropriate for middle/junior and senior high school science classes and laboratories. Same as CHEM 440 and PHYS 440.

#### B. COURSE EFFECTIVE DATES: 06/01/1995 - Present

#### C. OUTLINE OF MAJOR CONTENT AREAS

- 1. Research-based instructional strategies for science teaching
- 2. Planning for science assessments
- 3. Creating a safe science classroom
- 4. Professional development opportunities at the local, state (MNSTA), and national (NSTA) level

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

- 1. Understand how effective science teachers know what to teach (content).
- 2. Understand how effective science teachers know how to teach (pedagogy).
- 3. Understand how effective science teachers know their students.
- 4. Understand how effective science teachers establish a learning environment.
- 5. Understand how effective science teachers develop as professionals.

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

None

#### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

#### G. SPECIAL INFORMATION

None noted

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