# Minnesota State University Moorhead

# MATH 477: Abstract Algebra II

# A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

This course requires the following prerequisite

MATH 476 - Abstract Algebra I

Corequisites: None

MnTC Goals: None

Fields, Field Extensions, Galois Theory, Sylow Theorems, Finite Simple Groups, Generators and Relations and Cayley Graphs of Groups.

# B. COURSE EFFECTIVE DATES: 02/01/2017 - Present

#### C. OUTLINE OF MAJOR CONTENT AREAS

- 1. Fields, field extensions and Galois Theory
- 2. Sylow Theorems, Finite Simple Groups, Generators and Relations and Cayley Graphs of Groups

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

- 1. Student will categorize some finite groups.
- 2. Student will understand free groups.
- 3. Student will understand the interaction between groups and fields.

# 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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