
Title Change

Part II. Description of Curriculum Change.

1. New syllabus of record - attached.

2. A summary of the proposed revision:

The current prerequisite for MA476 Abstract Algebra I is "MA 171, 271 with a C or better grade." The proposed revision would change the prerequisite to "MA 272 with a C or better grade."

3. Justification/rationale for the revision:

The Mathematics Department is proposing a change in the core for all three undergraduate programs offered by the department, namely Mathematics, Applied Mathematics, and Secondary Mathematics Education. One aspect of this change is to extend MA271 Algebraic Structures to a two-semester sequence. MA271 and MA272. MA271 will be renamed MA271 Introduction to Mathematical Proofs I

I Catalog Description

MA 476/576 Abstract Algebra I

3 credits
3 lecture hours
(3c-0l-3sh)

Prerequisites: MA 272 with a C or better grade.

[redacted]

develop student's power to think for himself or herself and to improve ability to construct

[redacted]

II Course Objectives

1. Students will review and extend their knowledge of sets, theory and functions and

[redacted]

C. Rings (13 hours)

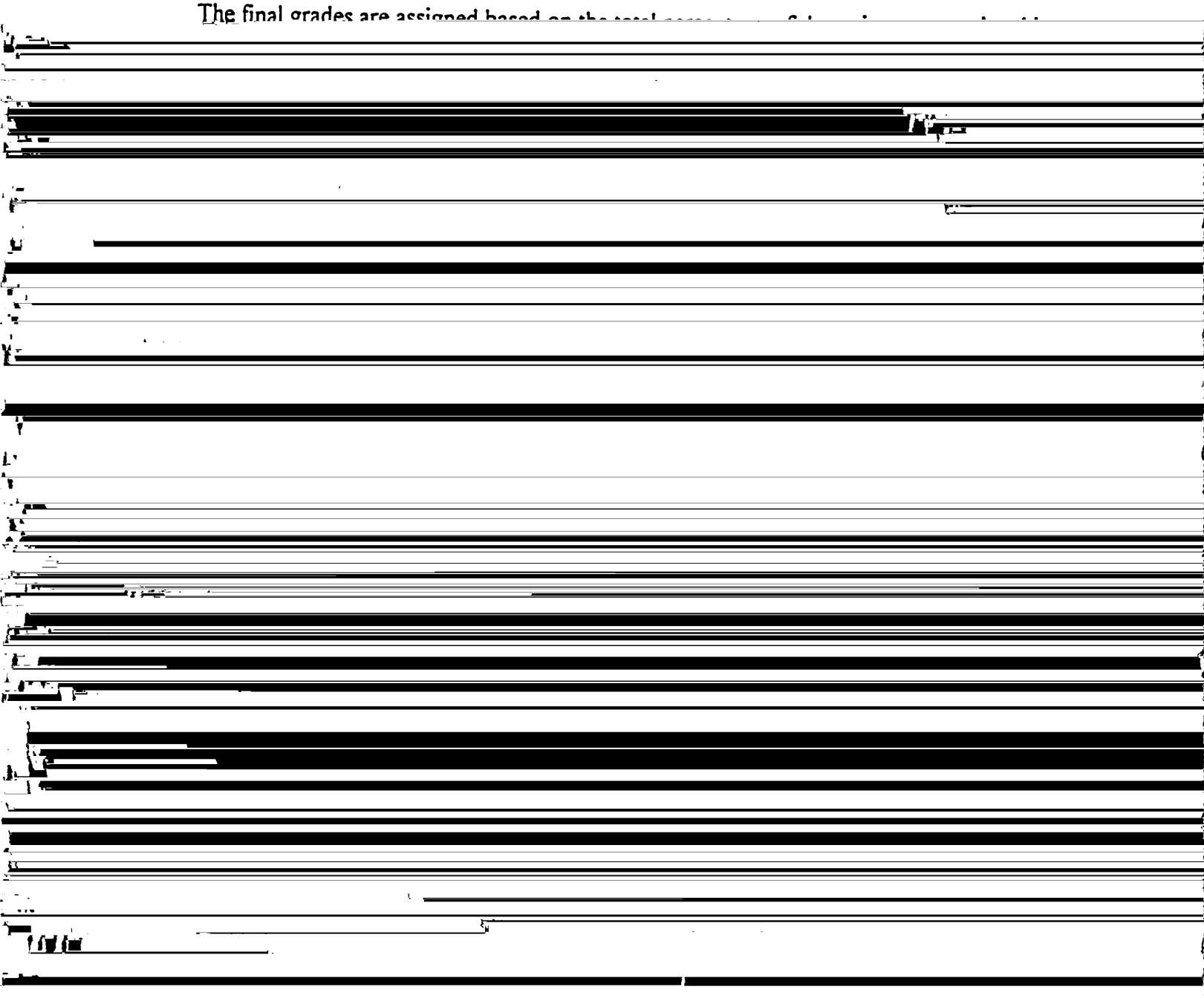
[redacted]

5. Quotient Rings
6. Polynomial Rings and Divisibility
7. Roots and Irreducibility
8. Integral Domains, Principal Ideal Domains and Unique Factorization Domains

D. Fields (8 hours)

1. Examples of Fields and Elementary Properties
2. Fields of Quotients
3. Extension Fields

The final grades are assigned based on the total [redacted]



B	80% - 89%
C	70% - 79%
D	60% - 69%
F	below 60%

V Required Textbook

Hungerford, Thomas: Abstract Algebra: An Introduction. Philadelphia, Saunders College Publishing 1990.

VI Special Resource Requirements

None

Old Syllabus of Record

3 lecture hours

Prerequisites: MA 171, MA 271 with a C or better grade

C. Rings (13 hours)

1. Definition and Examples of Rings

2. Elementary Properties of Rings
3. Subrings, Ideals and Direct Sums
4. Homomorphisms and Isomorphisms
5. Quotient Rings
6. Polynomial Rings and Divisibility

7. Roots and Irreducibility

8. Integral Domains, Principal Ideal Domains and Unique Factorization Domains

D. Fields (8 hours)

1. Examples of Fields and Elementary Properties
2. Fields of Quotients
3. Extension Fields
4. Finite Fields
5. Congruences in F[x]

E. Groups (9 hours)

1. Definitions and Examples
2. Elementary Properties of Groups
3. Homomorphisms, Isomorphisms and Cyclic Groups

The final grades are assigned based on the total percentage of the points accumulated in the entire semester. The scale suggested is:

A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	below 60%

V Required Textbook

Hungerford, Thomas: Abstract Algebra: An Introduction. Philadelphia, Saunders College Publishing 1990.

VI Special Resource Requirements

None