SYLLABUS

Course: MAT 6521 Selected Topics from Higher Algebra II

Text: Topics in Algebra, 2nd Edition, Herstein

Catalog Description:

MAT 6521 Selected Topics from Higher Algebra II Credit, 3 sem. hrs.

Prerequisite: MAT 6520

Introduction to permutation groups, symmetry groups, Euclidian groups, factorization of

integers, polynomials, ideals, and fields (including the field of complex numbers).

Rationale for Course: This course continues the study of topics from higher algebra begun in

MAT 6520. The content of the course is concentrated on rings, integral domains, fields and

vector spaces and their properties.

Learning Objectives: Upon successful completion of this course, the student will be able to:

-define a ring

-distinguish a general ring from an integral domain or field

-prove theorems related to rings, integral domains and fields

-solve problems related to Euclidean rings including polynomials and the Gaussian integers

-find the greatest common divisor using the Euclidean algorithm in a variety of settings

-use extension fields to examine questions of constructability

Academic Integrity: Honesty and integrity are basic virtues expected of all students at

Mississippi College. The Mississippi College Tomahawk lists the policies and penalties for

plagiarism and cheating. This information can also be found online by going to

http://www.mc.edu/publications/policies/ and following the link to Policy 2.19.

Other Behavioral Expectations: In addition to exhibiting academic integrity, each student is

expected to:

-arrive to class on time, prepared to participate fully in the class

-show respect for others by talking only in ways that contribute to a good classroom atmosphere

-turn off and stow out of sight all cell phones, pagers, PDAs, etc.

-refrain from bringing a “full meal deal” to class; light snacks or a drink are OK, but if you spill it,

you clean it up

-refrain from reading newspapers, magazines and books from other classes during this class

Disability Accommodation: In order for a student to receive disability accommodations under

Section 504 of the Americans with Disabilities Act, he or she must schedule an individual

meeting with the Director of Student Counseling Services immediately upon recognition of

their disability (if their disability is known they must come in before the semester begins or

make an appointment immediately upon receipt of their syllabi for the new semester). The

student must bring with them written documentation from a medical physician and/or licensed

clinician that verifies their disability. If the student has received prior accommodations, they

must bring written documentation of those accommodations (example Individualized Education

Plan from the school system). Documentation must be current (within 3 years). The student

must meet with SCS face-to face and also attend two (2) additional follow up meetings (one mid semester before or after midterm examinations and the last one at the end of the semester).

Please note that the student may also schedule additional meetings as needed for support

through SCS as they work with their professor throughout the semester. Note: Students must

come in each semester to complete their Individualized Accommodation Plan (example: MC

student completes fall semester IAP plan and even if student is a continuing student for the

spring semester they must come in again to complete their spring semester IAP plan). Student

Counseling Services is located in Alumni Hall Room #4 or they may be contacted via email at

christia@mc.edu or rward@mc.edu. You may also reach them by phone at 601-925-7790.

Learning Environment: The method of instruction will include instructor presentations,

homework and student presentations.

Assessment: Assessment of the student's progress will be primarily based on student

presentations of the homework. Quizzes and tests may be given if needed. Weights of the

various components will be given near the end of the course. The college stipulates that the

grade for the course is automatically an F in the event of 4 or more absences.