

SYLLABUS

Course: MAT 6512 Polynomials
Text: Polynomials, Barbeau

Catalog Description:

MAT 6512 Polynomials

3 sem. hrs.

Prerequisite: Graduate standing

A deeper investigation of polynomials including polynomials with real, complex or modular coefficients. Algebraic properties such as the group properties of roots of unity and solvability of polynomials over the rationals will be investigated.

Rationale for Course: Polynomials are a key building block for mathematical development in algebra and beyond. The intent of this course is to give graduate students, including in-service teachers, a deeper understanding of the properties of polynomials.

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

- work with polynomials with real, complex or modular coefficients
- describe some of the deeper properties of polynomials
- state and apply theorems involving polynomials
- provide proofs of theorems involving polynomials
- explain the applications of polynomials in more advanced mathematical topics

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.

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 electronic devices
- 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

Student Assistance:

A. Early Alert System

Mississippi College has adopted the practice of finding students early in the semester who may be exhibiting behaviors that could ultimately have a negative impact on their academic progress. These behaviors are often called "red flag" behaviors and include, but are not limited to, excessive absences, poor test grades, and lack of class participation or evidence of non-engagement. Identifying these behaviors early gives the instructor the opportunity to raise the "red flag" on behalf of a particular student so that

the student can take the appropriate action to redirect his/her progress. The system alerts the student, the student's advisor, and the Office of Student Success.

These messages are intended to help a student recognize an area of concern and to encourage him/her to make some choices to improve the situation. When a student receives an Early Alert message, the student should quickly make an appointment to talk with his/her professor about the situation. Also, students can make full use of the Office of Student Success to set academic goals and connect to campus resources.

B. Students with Disabilities

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 on the 4th floor of Alumni Hall) or they may be contacted via email at mbryant@mc.edu . You may also reach them by phone at **601-925-7790**. **Dr. Morgan Bryant is director of MC Student Counseling Services.**

Learning Environment: The method of instruction will include lecture, group problem solving, individual problem solving, projects and examinations. Each student is expected to have a copy of the text, writing materials, a TI-84 or comparable calculator and an open mind. On tests, the work is assumed to be the student's own and no cheating will be tolerated.

Assessment: Assessment of the student's progress will be made through individual assignments, group projects, quizzes and tests as well as through classroom feedback. There will be two examinations as well as quizzes and out-of-class projects. Weights of the various components will be given as the course progresses. Makeup work is the responsibility of the student and should be cleared with the instructor in advance whenever possible. The college stipulates that the grade for the course is automatically an F if more than one-fourth of the classes are missed.