

Course Description
MA 419-FC Polynomial Expansions
Summer 2020

Department of Mathematics
University of Alabama at Birmingham

Course Instructor: Dr. Michael Hofbauer-Tsiflakos

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Office Hours: No physical meeting possible. Please send an email.

Course Info

Meeting times: No physical meeting possible. Online lectures will be posted on canvas.

Course material: The material of the course is gathered from a variety of books, which will be presented through hand written notes and online videos.

Important Dates

First day of our class: June 29, 2020

Last day of our class: August 06, 2020

Midterm Date: July 20, 2020

Final Date: August 10, 2020

Course Policies

- Please make sure that you are able to receive e-mail through your Blazer-ID account.
- If your are contacted by the Early Alert Program, you should consider taking advantage of the services it offers.
- If you wish to request a disability accommodation please contact DSS at 934-4205 or at *dss@uab.edu*.

Course Content

- Introduction to polynomials, linear factorization of a polynomial, methods for finding and estimating roots, connection between roots of polynomials and their expansions, the binomial theorem, the multinomial theorem, further expansions of special polynomials, interpolation polynomials, approximating functions with polynomials, Taylor's Theorem, determining transcendental numbers through polynomials, Weierstrass' Theorem.

Class Management via Canvas

- Homework problems will be posted on canvas (<http://www.uab.edu/online/canvas>). Other class materials (class announcements, codes, grades and etc.) will be posted on canvas. Students should log in to canvas at least once a day!
- Homework assignments will be collected on canvas.

Assessment Procedures

- Student achievement will be assessed by the following measures:
 - **Weekly homework.** Homework will be due weekly. There will be no extension of deadlines for any reason. Homework contributes 50% to the course average.
 - **Midterm exam.** There will be one midterm exam. The midterm exam contributes 20% to the course average.
 - **Final exam.** There will be one final exam. The final exam contributes 30% to the course average.
 - **Retaking the midterm or the final exam.** In case of absence, the midterm or the final exam might be retaken at a later point in time, if the affected student presents a justified, written and signed confirmation from a third party (e.g. a medical doctor in case of illness).

Grading Scheme: 50% home work, 20% midterm exam, 30% final exam.

- Your final grade is determined according to the following table:

| | | | | | |
|---------------------|--------|-------|-------|-------|----------|
| Course performance: | 88-100 | 75-87 | 62-74 | 50-61 | below 50 |
| Final Grade: | A | B | C | D | F |

Academic Honor Code

The University of Alabama at Birmingham expects all members of its academic community to function according to the highest ethical and professional standards. Academic misconduct undermines the purpose of education. Such behavior is a serious violation of the trust that must exist among faculty and students for a university to nurture intellectual growth and development. Academic dishonesty and misconduct includes, but is not limited to, acts of abetting, cheating, plagiarism, fabrication, and misrepresentation. Candidates are expected to honor the UAB Academic Honor Code as detailed in the most current UAB Student Catalog. Please consult this resource (<https://www.uab.edu/students/one-stop/policies/academic-honor-code>) for additional information regarding the specific procedures to be undertaken when a student violates the UAB Academic Honor Code.

Non-harassment, Hostile Work/Class Environment

The UAB College of Arts and Sciences expects students to treat fellow students, their Course Instructors, other UAB faculty, and staff as adults and with respect. No form of hostile environment or harassment will be tolerated by any student or employee.
