Syllabus for MA 465, Complex Variables
Winter 2017

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Course Description: Complex numbers, analytic functions, differentiation and integration, series, residues and poles.

Upon successful completion of this course, a student should be able to:

- perform basic mathematical operations with complex numbers.
- verify continuity, differentiability, analyticity of a function and compute the derivative of a function.
- work with elementary functions including exponential, logarithmic, trigonometric functions, etc.
- evaluate a contour integral using the definition or by Cauchy integral formula.
- find the Taylor series of a function and determine its circle or annulus of convergence;
- compute the residue of a function。

Evaluation of these learning outcomes will be done through assignments, tests, and exams.

Prerequisite: MA 211 and MA 265

Textbook: A First Course in Complex Analysis by Beck, Marchesi, Pixton, and Sabalka, which can be downloaded at the website http://math.sfsu.edu/beck/papers/complex.pdf

Recommended reading: Complex Variables and Applications 8th edition, by Brown and Churchill.

Grading Plan: Coursework will be weighted as follows:

Homework: 15%. Tests: 50%. Final Exam: 35%

It is important to take the tests and exam at the scheduled time. Generally, no make-ups will be given.

Grading: 90%—100%, A/A-; 80%—89%, B+/B/B-; 70%-79%, C+/C/C-; 60%-69%, D+/D/D-; 0%-59%, F.

Disability Services If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1700 or disserv@nmu.edu). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.