

## MATH 655: Complex Analysis

Spring 2019    Class number 17133    MW 5:00–6:15pm    Room CR 5208

### Prof. Vladislav Panferov

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Office hours: (tentative: check webpage for updates) Mon 3-4pm, Tue 1-2pm, or by appointment (stop by my office, send me email or ask me after class).

**Course description:** Graduate level course on Theory of Functions of One Complex Variable. Topics include properties of analytic functions, Cauchy's integral formula, Taylor and Laurent series, analytic continuation, contour integration, conformal mappings and the Dirichlet problem. Asymptotics of Integrals and Integral Transform Methods.

**MATH 655 WEBPAGE**    [www.csun.edu/~panferov/math655/](http://www.csun.edu/~panferov/math655/)

**Text:** *Functions of a Complex Variable: Theory and Technique*, by G. F. Carrier, M. Krook, C. E. Pearson, SIAM 2005 (reprint of 1966 McGraw-Hill edition). We intend to cover most of Chapters 1-4 and selected material from Chapters 5-7, as time permits.

Other textbooks that may be used for reference: L. V. Ahlfors, *Complex Analysis*, 3rd edition, 1979 (a classic Complex Analysis textbook). J. B. Conway, *Functions of One Complex Variable, Vol. I*, 2nd edition, Springer 1978.

**Prerequisites:** MATH 501, MATH 455.

**Homework:** Homework will be assigned weekly and announced in class and/or on the course webpage. You can collaborate with your classmates on the homework, however, writing up your solutions needs to be your own work, and copying is not acceptable. Homework must be hand written neatly or typewritten, and STAPLED. Sloppily done or unstapled assignments will be returned ungraded.

**Quizzes and Midterms:** Quizzes (15 minutes in the beginning of class) will include problems from the homework or directly related to it. Two in-class midterms are tentatively scheduled for *February 27* and *April 10* (Wednesdays). This schedule may be adjusted, and the changes will be announced in class and on the course webpage. All quizzes/tests will be closed books/notes.

**Final exam:** On Wednesday May 15, 2019, 5:30-7:30pm in CR 5208.

**Make-ups:** Make-up tests/exams are not normally given.

**Grading:** I will use +/- grading system, and will compute the grades as follows:

2 in-class exams	20% each
homework/quizzes	25%
final exam	35%

The percentages are to be translated into letter grades using the following scale: 90-100% A; 80-89% B, 70-79% C, 60-69% D, 0-59% F. The cutoff numbers for the grades may be modified (in the direction of decreasing only!) at the end of the term, based on the overall performance of the class.

**Electronic devices:** No electronic devices are permitted on tests/exams/quizzes. Cellphones and tablets must be off (or on silent or airplane mode) during class. Texting, surfing or otherwise using your phone during class is not acceptable.