Course Syllabus
Math 679
Complex Analysis
3 Credits
Fall, 2007

1. **Class meeting information:**
   Place : 201 LDB
   Time : MWF 12:00 - 12:50 am

2. **Professor:** Dr. Yuliya Babenko
   Office: 426 Lee Drain
   Office Phone: 294-4884
   e-mail: babenko@shsu.edu

3. **Office Hours:**
   MWF 10 - 11 am
   T/Tr 9:30 - 11 am
   and, of course, by appointment.

4. **Course Context:**
   The topics covered will include:

   - Algebra, Geometry, and Topology of complex numbers and complex plane.
   - Holomorphic functions and differentiation in the complex plane.
   - Integration in the complex plane. Cauchy's formula.

   Class will be primarily lecture-oriented.

   While studying the material we will follow two basic principles:

   - generalize from the real case;
   - when that reveals new phenomena, use the rich geometry of the plane to understand them.

   Our aim throughout is to encourage geometrical thinking, with the proviso that it must be adequately backed up by analytic rigour.

5. **Required Textbook:**
   Introduction to Complex Analysis by H. A. Priestly, 2nd edition. Sometimes additional lecture notes will be provided.

   Reading additional texts is strongly encouraged. It gives you different perspectives and various examples. Especially I would recommend (they can be obtained in the library):

   - Complex Analysis by Ian Stewart and David Tall.

- Fundamentals of Complex Analysis with Applications to Engineering and Science by E. B. Saff and A. D. Snider, 3rd edition.

6. **Attendance Policy:** Students are expected to attend every class. If class must be missed, the student is expected to notify professor in advance, and to get the notes and assignments from a classmate. The professor will keep a record of attendance.

7. **Tardiness:** Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class.

8. **Everyday homework:** Homework will be assigned in class each day. Homework (with the exceptions mentioned below) will not be collected.

9. **Graded homework:** In addition to everyday homework there will be 3 homework assignments prior to each test that will be collected, graded, and returned to students before the test.

   It is your responsibility to ask questions about homework problems which you were not able to complete or did not understand. It is your responsibility to come to office hours, or otherwise contact someone for help. You may contact me via e-mail if you cannot make it to office hours, and I will try to answer questions as clearly as I can via e-mail. It is also your responsibility to do as many problems from each section as you need to in order to feel comfortable with the material.

10. **Quizzes:** There will be quizzes (both pop-up and announced in advance). No make-ups are allowed under any circumstances. To compensate for this, the lowest quiz score for the semester will be dropped.

11. **Class participation:** Students are encouraged to attend every class and participate actively by asking questions both in and out of class.

12. **Tests:** There will be 3 tests (each worths 100 points) during the semester. Each test will consist of two parts: theoretical and practical.

13. **Projects:** There will be individual projects assigned (to be written up and presented in class) worth 100 points.

14. **Final Exam:** Final exam will be optional.