Math 411   COMPLEX ANALYSIS   Winter 2014

Instructor: Gregg Waterman, 176 Boivin Hall, 885-1324, gregg.waterman@oit.edu

Office Hours: 10-11:30 MWRF. You are also welcome to drop in any time to see if I am around - if I am I can usually take some time to help you. **I can also make appointments for other times**.

Texts: *A First Course in Complex Analysis* by Beck, Marchesi, Pixton and Sabalka and *Complex Variables and Applications* by Churchill and Brown.

Web Page: http://math.oit.edu/˜watermang/

Course Goals and Objectives: After completing this course, students will be able to

1. perform complex number operations

2. determine where complex functions are differentiable, and find their derivatives there

3. work with complex root, exponential, trigonometric and logarithm functions

4. perform complex integration

5. work with power series, Taylor series and Laurent series

6. determine the natures of singularities and find residues

7. calculate integrals using the Residue Theorem

Students will also communicate mathematical ideas using correct and appropriate notation.

Grading: Your grade will be based on your scores on assignments, quizzes and exams.

- *Assignments:* Each assignment will have a due date and time, but I will give credit for late assignments if you get them to me before I grade the whole batch. You may turn in two assignments late, at the start of the hour that they are returned. After that, any assignment turned in after I have graded that assignment will receive no credit.

- *Quizzes:* Quizzes, if we have any, will be announced ahead of time.

- *Regular Exams:* There will be two regular exams given during the term. **You MUST take exams at the scheduled times and there will be no make-up for missed exams**. See the schedule at the end of this syllabus for exam dates. Make-up exams can be given for previously arranged absences if you have a good reason to miss an exam.

- *Final Exam:* The final will be given during the time period listed in the schedule. It will be primarily over the material covered after Exam 2, but will be partially comprehensive as well. **You MUST take the final at the designated time, so make all travel arrangements accordingly.**

Grades will be computed from the above as follows:

- Each regular exam will be worth 100 points and the final exam will be worth 150 points.

- Each quiz point is equal to one exam point.

- The number of assignment points used for purposes of calculating your grade will be 90% of the points that were actually possible. If you exceed that number of points your grade for assignments will be 100%.

The percentage of points possible that are earned will be computed, and you will receive a letter grade based on that percentages, using the grading scale 90-100% ⇒A, 80-89% ⇒B, 70-79% ⇒C, 60-69% ⇒D, and below that is an F.

Other Things of Importance:

- *Incomplete Grades:* An incomplete grade can only be assigned to you under the following circumstances:

  1. You have/had a grade of 70% or better (including zeros for any work not done) by the date to withdraw with a W.

  2. You have a SERIOUS problem that begins after the withdraw date and prevents you from being able to complete the term.

  An incomplete grade will definitely not be assigned in the event that you are not performing well in the course and fear that you may not obtain a passing grade!

- *Disabilities:* If you have, or think you have, a disability that could affect your performance in this course, you can tell me outside of class or contact Bill Proebstel, Campus Access & Equal Opportunity, at 541-851-5227.

Calendar: Below are some important dates for the term.

January 20th - **Martin Luther King Holiday**

January 30th - **Exam One**

February 21st - **Exam Two**

February 22nd - Last day to withdraw with a "W"

Thursday, March 20th, 10:00 AM - 12:00 PM - **Final Exam**