COMPLEX VARIABLES  
MATH 461  
SPRING 2010

Information.
Instructor: Dr. S. Muir
Office: St. Thomas (STT) 160 A
Office Hours: M 3:00 – 4:00 p.m., TR 1:30 – 3:00 p.m.
Office Phone: 941-6580
Electronic Mail: muellers2@scranton.edu
Web Address: www.academic.scranton.edu/faculty/muellers2
Class Meetings: MWF 2:00 – 2:50 p.m., STT 311

Important Dates.
February 1: First day of class
February 5: Last day to add a class
March 3: Last day to drop a class with no grade
March 15 – 19: Spring break, no class
March 22: Midsemester grades submitted
April 1, 2, 5: Easter break, no classes
April 16: Last day to withdraw with a “W” grade
May 14: Last day of class
May 17: Final, 3:00 p.m. – 5:00 p.m.

Catalog Description: The theory of complex variables: the calculus of functions of complex variables, transformations, conformal mappings, residues, and poles.

Textbook: The required textbook for this course the set of bound course notes titled A Modern First Course in Complex Function Theory by J. Muir.

Before we get started: In this course, most of our time will be spent on understanding the mathematical structure of the topics given in the catalog description. Your work for the semester will include writing your own logical arguments as well as performing calculations. It is important to understand the process and to present your work in a clear manner (even when performing calculations). Therefore, you should expect to spend a reasonable amount of time outside of the scheduled class time reading the text, mastering terminology and notation, solving problems, and constructing logical arguments.

Make sure to use all of your resources. This includes attending class regularly and reading the book before and after material is covered. I have office hours (listed above) that are times for you to drop in (no notice needed) to ask questions about course material, assignments, etc. If you are unavailable during my scheduled office hours, do not hesitate to contact me as I am available more often than just the times listed. It is a very natural aspect of an upper division math class to have conversations with the professor about the material! Also, some assignments can be discussed with other students in this class, but keep in mind the best way to learn, is to do the work yourself. For more details on assignments and working together, see below.

Grading: There will be two exams each worth 20% and a cumulative final worth 30%. Homework
will account for the remaining 30% of the course grade. Exam dates will be announced in class. Calculators will not be allowed for exams, and it is best not to become reliant on calculators or computers outside of class as all work on graded material must be supported.

**Homework:** The homework problems will be broken into two types: suggested and graded. It is important and assumed that you work both sets of problems. The homework to be graded will be collected regularly and is worth 30% of the course grade. It is due at the start of class on the assigned due date. Late homework may not be accepted. See **Attendance/Missed Assignments** below for more details. *On the due date, no questions may be asked of me regarding the assignment due that day.* You may consult only with other members of this class and myself on the graded homework assignments. You are not to use other sources of potential solutions, e.g. other texts, the internet, other notes or documents *not given out this semester*, tutors, etc. If you are ever in doubt about what you can and cannot use, ask!

Keep in mind that you may not know the “answer” to every assigned problem immediately. Some problems require you to spend time thinking about the concepts, putting together several definitions and/or theorems, and even adding a bit of creativity. It would serve you well to spend time alone on each problem before you consult with anyone. Moreover, you should not turn in work that you did not contribute to substantially. *You must write your solutions independently,* and you must *always* indicate with whom you worked on each problem.

Working diligently and frequently is a key to success in this course. Because the process of applying reasoning to solve problems is fundamental to this course, unsupported answers and arguments may receive no credit. To facilitate this process, the following requirements are made of the written graded homework.

- Problems should be clearly labeled and numbered on the left side of the page. There should also be a visible separation between problems.

- There should be a top and left margin on every page, and you should leave the entire *back of every page blank* so that the space may be used for scoring and comments.

- To ensure that each problem is graded, problems must be written in the order they are assigned.

- Each solution/proof should begin with the original problem statement. This will help you to study from your solutions later and allows me to address different aspects of the problems in my comments to you.

- Use complete sentences when making arguments or providing explanations for calculations.

- You must *always* indicate with whom you worked on each problem.

- Staple all pages together before class and remove “rough” edges. No cross outs or excessive eraser marks allowed. Do not use red ink.

An example is attached.

**Attendance/Missed Assignments:** I expect you to be in attendance for every class. If you miss for any reason, you are still responsible for all announcements made and all material presented.
You can find a class schedule on the web page given above. Make-up privileges for absences may be extended at the discretion of the professor. *It is your responsibility to contact me to request alternative arrangements.* If at all possible, contact should be made *prior* to the absence.

**Cheating:** Copying or cheating on any graded work is not allowed! Keep in mind this includes homework. Again, your homework solutions are to be written entirely on your own, and you are not to use other sources of potential solutions, e.g. other texts, the internet, other notes or documents *not given out this semester*, tutors, etc. Simply copying a solution is unacceptable. The penalty for cheating can be a *failing grade* in the course, and it may be reported to appropriate administrators. *Whenever you turn in any work to be graded, you are implicitly asserting that you complied with the conditions stated in this syllabus and in the Academic Code of Honesty.* For more information, see [www.scranton.edu/academicintegrity](http://www.scranton.edu/academicintegrity).

**Other stuff:** Please remember to turn your cell phone *off* before class. It is expected that cell phones will not be used during class. When writing email, please use capitalization, punctuation, and complete sentences.

In order to receive appropriate accommodations, students with disabilities must register with the CTLE and provide relevant and current medical documentation. Students should contact Mary Ellen Pichiarello (Ext. 4039) or Jim Muniz (Ext. 4218), 5th floor, St. Thomas Hall, for an appointment. For more information, see [www.scranton.edu/disabilities](http://www.scranton.edu/disabilities).