1 The Assignment

In this project, you are asked to write up your own notes on Chapter II *Integral Calculus in the Complex Plane* © of the textbook by Freitag and Busam.

Just like the handout notes on Chapter I, your own notes should include the following elements.

(a) The contents should be divided into sections.

(b) Your notes should include all contents in the main text of Chapter II.

(c) You should organize the contents using modules such as Definitions, Lemmas, Theorems, and Corollaries. You should also rephrase your own understanding of the materials in Examples and Remarks.

(d) There must be a clear logical sequence in your arrangement of the materials. In other words, you must arrange the modules with intuitive partial orderings.

(e) You may include materials not on the textbook, so long as they are relevant to the topic and contribute to a better understanding of integral calculus in the complex plane.

(f) Your solution must be in English.

(g) You must either type your work in LATEX or write up your work in hand. Microsoft Word document is not accepted. If you type your work in LATEX, you must also submit your latex source. A LATEX template can be found on the course web page.

The purpose of this project is for you to think actively about materials you learned, to form the good habit of brooding over the connection of the materials, and finally to tell a coherent story out of them.

2 The Competition

Each submission will be graded on a full scale of 30 points and the student will get an extra credit. I will also select up to three winners of this project and award them another 10, 8, 6 extra credit points. The criteria for the competition are listed as follows,

(A) the correctness;

(B) the clarity of exposition, especially in Remarks and Examples;

(C) the logical structure in arranging the modules;

(D) the amount and relevance of additional materials not on the textbook;

(E) deep connections to other branches of mathematics as illustrated in Sections 1.7 and 1.8 of the handout notes.

In the above list, the more important a criterion is, the earlier it appears.

This project is purely optional.

*Warning*: This assignment is optional and the grade it is worth is entirely at the discretion of the instructor. Students who choose not to do it will not be penalized in any way.