Department of Mathematics & Statistics
Concordia University

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MATH 366 (MATH 601AA)
Complex Analysis I
Fall 2016

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Instructor: Dr. M. Bertola, Office: LB 901-23 (SGW), Phone: (514) 848-2424, Ext. 3228
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Office Hours: Wednesdays, 14:30-16:30.

Textbooks: The material of the course is quite standard and can be found in almost any textbook in Complex Analysis.
The principal reference will be the course of M. Beck, G. Marchesi, D. Pixton, L. Sabalka "*A first course in Complex Analysis*", ver. >=1.52, available at http://math.sfsu.edu/beck/complex.html

Occasionally it shall be complemented by other resources.

There are many other good courses available in the internet, see e.g.
1. http://www.ima.umn.edu/~arnold/502.s97/complex.pdf
2. http://www.maths.manchester.ac.uk/~cwalkden/complex-analysis/complex_analysis.pdf
3. https://www.math.washington.edu/~marshall/math_536/Notes.pdf

A standard university textbook (but not freely available) is *Complex Variables and Applications*, 8th Revised Edition (2008), R.V. Churchill land J.W. Brown, McGraw-Hill Professional. ISBN-10: 082183780X ISBN-13:978-0071263283.

The following two classical textbooks written by celebrated mathematicians are useful additional reading and a source of inspiration for further studies:

1. Lars V. Ahlfors, *Complex Analysis*, McGraw-Hill, 1966.
2. Raghavan Narasimhan, *Complex Analysis in One Variable*, Birkhäuser, 1985.

Evaluation: There will be one mid-term test and a final exam. The final grade will be the higher of:

a) The final exam (60%), the mid-term (20%) and weekly problem assignments (20%)

b) The assignments (20%) and the final exam (80%)

NOTE: THERE IS NO "100% FINAL" OPTION. Problem assignments will be given (almost) each week, to be submitted the following week; (hints to) solutions will be posted or discussed in class.

The following table gives an indication of the scope and *approximate* pace of the course.

Topics		No. of Weeks on Topic
Introduction		1
Analytic functions		2
Elementary functions		2
Complex integration		2
Taylor and Laurent series		2
Residue theorem and applications		2
Selected topics		1