Basic Complex Analysis II - Math 60380

Instructor: Gábor Székelyhidi
MWF 11:30 – 12:20, Spring 2019
DBRT 240

This course will be an introduction to several complex variables, and complex and Kähler geometry. The main topics covered will be the following:

- Several complex variables
- Complex and Kähler Manifolds
- Vector bundles
- Hirzebruch-Riemann-Roch and Kodaira Embedding Theorems

Textbook: Daniel Huybrechts: Complex Geometry - An Introduction
References: Some other useful references which are more advanced are:

- Griffiths, Harris: Principles of Algebraic Geometry, Chapter 0, 1.
- Demailly: Complex Analytic and Differential Geometry, available at `https://www-fourier.ujf-grenoble.fr/~demailly/manuscripts/agbook.pdf`

Grading policy: There will be regular homework sets, a midterm, and a final exam. The final grade will be broken down as follows: Homework 40%, Midterm 30%, Final 30%.

Office hours: I will have regular office hours on Mondays, 1-2:30pm, in 277 Hurley Hall, or by appointment.