

MATH742, Fall 2020

General information for Tamás Darvas' students

Instructor: Tamás Darvas, tdarvas@math.umd.edu.

Course Website: www.math.umd.edu/~tdarvas/teaching.html.

Email: tdarvas@umd.edu. Be sure to include “Math 742” in the subject line.

Class: TTh 11:00 AM - 12:15 PM, Zoom link: <https://umd.zoom.us/j/93316807864>.

Office hours: after class, or by appointment

Syllabus: This course is an introduction to geometric analysis. The core focus will be on Hodge theory on compact manifolds and applications. There will be emphasis on connections with deRham cohomology and Dolbeault cohomology. Background in sheaf theory and elliptic partial differential equations will be helpful but not necessary, as we will build up the technical tools from the ground up.

Textbook: I plan to follow R. Wells “Differential Analysis on Complex Manifolds”. For a more complete reference check J.P. Demailly “Complex Analytic and Differential Geometry”.

Assignments: A 30 minute presentation on a topic of your choice towards the end of the semester.

Prerequisites: Basics of differential geometry. Background in PDE will be very helpful but not required.

Students with disabilities: The University provides upon request academic accommodations for qualified students with disabilities. See <http://www.counseling.umd.edu/ads>.

Academic integrity: At all times you are expected to abide the University's policy on academic integrity: <https://www.faculty.umd.edu/teach/integrity.html>. All cases of academic dishonesty will be referred to the Office of Student Conduct. Academic dishonesty includes cheating on quizzes and exams. Additionally, the University has a nationally recognized Honor Code, administered by the Student Honor Council. The pledge, approved by the University Senate, reads: “I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination.” Unless specifically advised to the contrary, the Pledge should be handwritten and signed on all tests in this course. In conjunction with the University's Code of Academic Integrity, allegations of academic dishonesty will be reported to the Honor Council.