Course Title: *Topics in Partial Equations*

Course #: *MATH 85600*

Time and Location: *Tue. 4:00PM - 6:00PM*

Instructor Name: *Marcello Lucia*

Contact Information: *Mlucia@gc.cuny.edu*

Pre-Requisites: *TBA*

Office Hours: *Tue 2:00PM - 4:00PM*

Description:

The aim of this course will be to present several problems arising in differential geometry that lead to some nonlinear partial differential equations. Particular attention will be given to the problem of prescribing Gauss curvature, scalar curvature and the Yamabe problem.

Solving these geometrical problems has been a main motivation to invent many new technics in the modern theory of PDEs. I will explain those tools and show how they have been applied in some famous papers written by Yamabe, Trudinger, Kazdan-Warner, and Aubin.