C&O367/CM442   Nonlinear Programming   WINTER 2009

COURSE INFORMATION

Objectives:

To learn: Theory, Algorithms, Applications of Nonlinear Optimization, i.e. for minimizing an objective function that depends nonlinearly and continuously on unknown variables. Introduction to convexity theory will be included.

Intended Audience:

Prerequisites:

One of: CO 350 and MATH 138/148; CO 352/CM 340; or CO 355. (Not open to General Mathematics students. Note: MATH 237/247 is recommended.)

Textbook:

A. Peressini, F. Sullivan and J. Uhl, The Mathematics of Nonlinear Programming, Springer-Verlag, 1988.
In addition, supplementary material not in the textbook will be covered. Thus, attending class is very important.

Course Web Page:

The course web page can be found at:
http://orion.math.uwaterloo.ca/~hwolkowi/henry/teaching/w09/367.w09/index.shtml)

MATLAB:

The MATLAB software package will be used to supplement the course material. Although you will NOT be tested on MATLAB, there will be questions on assignments that will require the use of MATLAB.

Assignments:

You will be asked to hand in **6** assignments. the assignments are due at the beginning of class of the due date. Late assignments will not be accepted.