CH 4800 Pharmaceutical Chemistry

Spring 2005  T,Th 3 - 4:20 pm

Instructor:  Professor Pushpa Murthy

Office:  505 CS&E

Contact:  ppmurthy@mtu.edu
          7-2094

Course grade:  Will be based on quizzes, classroom discussion and a comprehensive
              final exam.

Text book:  The organic chemistry or drug design and drug action, Second edition by
             R.B. Silverman

Course Outline:

This half of the course will address the molecular basis of drug action.  The following
topics will be discussed:
Targets of drug action
Mechanism of enzyme action
Drugs that inhibit enzymes:  Angiotensin converting enzyme inhibitors
                            Sulfanilamide antibacterial drugs
                            Penicillin and cephalosporin drugs
                            Drug resistance and strategies to overcome resistance
                            Analgesics and anti-inflammatory drugs
Receptors and signal transduction mechanisms
Drugs that interfere with signal transduction pathways:
                            Drugs that act on G-protein coupled receptor pathway
                            Antihistamines and antacids
                            Lithium
                            Calcium transport
Absorption and distribution of drugs
Metabolism and excretion of drugs