# CSE 5693 Machine Learning HW1
# Due 6:30pm, Feb 3, 2015
# Submit Server: Class = cse5693, Assignment = hw1

1. Written assignment (from textbook) [pdf file or hardcopy in class]:
   (a) 1.2 (tic-tac-toe)
   (b) 1.4
   (c) from your programming assignment:
      i. state the learned weight values without a teacher
      ii. state the learned weight values with a teacher
      iii. discuss why the weight values make sense or do not make sense

2. Programming assignment: Tic-tac-toe with LMS weight update (Ch1)
   (a) Use the design from above (1a)
   (b) Two modes for selecting experience:
      i. with teacher
      ii. without teacher (self-teaching)
   (c) Weak opponent (if both players are expert, the game always ends in a tie):
      i. for example, do not try to win using the middle spot (try to win in the rows/columns in the perimeter)
   (d) Train on at least 20 games
   (e) Test on at least 5 games for performance evaluation
   (f) Implementation:
      i. Use C (GNU gcc), C++ (GNU g++), Java (Oracle Java), LISP (CLISP), or Python. If you don't have a preference, use Java since it's more portable.
      ii. Your program preferrably runs on code.fit.edu (linux).
      iii. You might have these modules:
         A. Experience: select experience (teacher and no-teacher modes)
         B. Learner: input experience, output knowledge
         C. Player: input knowledge and board, output a move
         D. Game: input a move, output win, lose, tie, nothing (not end of game)
   (g) Submission:
      i. README.txt: what are the different files, how to compile and run your program on code.fit.edu (linux).
      ii. source code files