Project 4
Artificial Intelligence
CSCE 5210 – Spring 2020
Distributed: Tuesday, April 14
Due: Thursday, April 30

[Solutions to this assignment must be submitted via CANVAS prior to midnight on the due date. Submissions no more than one day late will not be penalized. Submissions up to one week late will be penalized 10 points. [PENALTY WILL BE WAIVED.] Submissions will not be accepted if more than one week later than the due date.]

Purpose: To demonstrate understanding of α-β search.

What to do: Implement the α-β search algorithm given the following specifications:

- The game is Tic-Tac-Toe
- The initial state is a blank board
- There are two opposed and informed players, MAX and MIN
- The program is the MAX player and MAX's actions are chosen by the program
- The opposed player is MIN, and MIN's actions are chosen via keyboard input
- The terminal state utilities are +1 (MAX wins), -1 (MIN wins), and 0 (tie)

After each MAX action, there must be a clear display of the current board configuration and clear directions to the keyboard user (MIN) indicating how to enter an action. MAX's actions should be displayed as an 'X.' MIN's actions should be represented as an 'O.'

Hand in:

- The computer code
- Sample executions (screen views):
    - A case in which MAX wins
    - A case in which MIN wins (may be omitted with an explanation)
    - A case in which there is a tie