COEN 166/266 - Spring 2015

Homework #7
Natural Selection

Description
Design an agent that will operate in a virtual environment, populated with vegetation, predators, and your fellow classmates.

See the "AgentWorld" description document for complete details on the environment representation and the Scheme interface that must be followed.

See the "README" file in the AgentWorld sources for information on configuring your own environments.

Performance Metric
Your agent will be rated based on the number of turns that it survives + the amount of remaining energy it has at the end of the simulation.

Grading
This assignment will be worth 200 points. You will be graded on your use of topics discussed in the class to create an effective agent. The agent will operate in 5 predetermined environments (Balanced, Certain, Lush, Predatory, and Sparse), and 5 novel environments.

Additionally, when the scores of all rounds are added up, the student with the top performing agent will get a full letter grade boost on their end-of-year grade (e.g., from B to A, from C- to B-, etc.). The next highest performer will get a 2/3rd boost (e.g., from B to A-, from C- to C+, etc.). The third highest performer will get a 1/3rd boost (e.g., from B to B+, from C- to C, etc.).

Submission
Zip up your submission and put it in the drop box on Camino. ***Please only send me your agent, not the entire AgentWorld environment.***

Timeline
3 June (4:00 pm): Preliminary submission due - if you wish to participate in an un-graded dry run with other students, submit your agent by this date. All participating students will be able to see the results of the dry run. This can be a good opportunity to test your algorithms prior to the final submission.

8 June (4:00 pm): Final submission is due.

No late assignments will be accepted.