

CS108L Computer Science for All Swarmathon Final Project Rubric

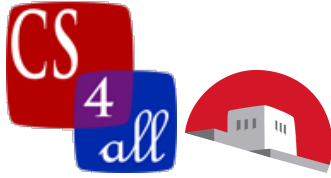


The Swarmathon Final Project description is posted separately online under Module 11 on the course web page. This rubric describes how the 80 points of the final project will be evaluated. There are 5 dates on which you will be graded. The late policy applies to each of these individual dates.

You can earn 10 pts for attendance for both the swarmathon milestone 1 and the networks milestone 1.

The remaining 70 points are divided up between 4 more milestones. Their due dates are listed on the class web page. For the in class assignments you must be present to receive the points, email or otherwise submitted work will not be accepted.

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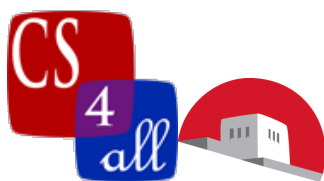


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Score	Points	Task
	10	Milestone 1: Swarmathon Module 1 must be completed in class. In conjunction with Networks Milestone 1.
	10 total	Milestone 2: In class
	1	File is named & commented appropriately; code is formatted & readable
	3	Swarmathon 2 code runs as specified in the walkthrough
	1	Interface is setup as specified in the walk through
	3	Show results of 10 experiments with 2 values of recruitment in a table. The table should include an average for each of the two recruitment values.
	2	Explain your results in 1 paragraph in the "what to observe" tab.
	10 total	Milestone 3: Module 3 is due on 11/21 (10 pts)
	1	File is named & commented appropriately; code is formatted & readable
	3	Swarmathon 3 code runs as specified in the walkthrough
	1	Interface is setup as specified in the walk through

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	3	Show results of 10 experiments with 2 values of recruitment in a table. The table should include an average for each of the two recruitment values.
	2	Explain the results of your experiment in 1 paragraph in the "what to observe" tab.
	10 total	Milestone 4: In class
	1	File is named & commented appropriately; code is formatted & readable
	3	Swarmathon 4 code runs as specified in the walkthrough
	1	Interface is setup as specified in the walk through
	3	In the Info Tab "Things to Notice" explain under what circumstances exhaustive search is expected to be better than the random search with site fidelity and pheromones from the previous model. Explain your reasoning.
	2	In the Info Tab "Things to Try" provide settings that work well given 6 robots and a clustered distribution, and explain why those are good parameter choices.



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	40 total	Milestone 5: Submission
	1	Include your name (and your partner's if applicable), date and assignment title in comments at the top of your program.
	4	Appropriately comment all of your code
	10	<p>Fill in ALL 9 tabs on the Info Tab. In particular, the following information should be included in these specific tabs.</p> <p>Netlogo Modules should include a web link and a description of any Swarmathon module code you built upon.</p> <p>Credits and References should include references to walk through guides that you built upon, and any outside sources (ie published papers or websites) that you used.</p> <p>Things To Notice should include a table listing the number of rocks collected given at least 5 different sets of slider values. Explain those results.</p>
	5	Follow all posted Swarmathon competition rules including properly using the provided "setup_tags.nls" file to setup random, powerlaw or clustered tag distributions.
	5	Your code must include conditional (if) statements that trigger different behaviors under different conditions. You may earn extra credit for particularly creative

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		ways to trigger appropriate behaviors given appropriate circumstances.
	5	Your code must include at least one new behavior or a new combination of behaviors that was not included in any of the walkthrough guides. You may earn extra credit with particularly creative behaviors.
	5	Your interface is neat, logical, and all buttons, sliders and monitors work properly.
	5	Your code is functional. When the user clicks "Setup" followed by "Go", for any of the 3 specified distributions of rocks and any number of robots, the rocks are setup properly, rocks are counted as they are collected and the count is displayed on a monitor button.
	5	Score: All scores will be ranked. Those in the top 20% will get 5 points, 4 points in the next 20%, etc.
		Bonus score: The top 3 winners will be given 5, 3 or 2 bonus points for first, second or third place respectively.

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