MATH 242 (§3) | University of South Carolina
Spring 1998 | D. Meade

Project 1

INSTRUCTIONS:

1. Form your group. Each group will consist of between 2 and 4 students. Please notify me of the members of your group before the start of class on Tuesday, March 3. (Anyone who has is not a member of a group at the beginning of class on March 3 will be assigned to a group by me.)
2. Select your project. Choose either A. or B. from the list of projects. The specific set of parameters (from Table 1.10 or from the list of pairs (1)–(4)) that you will analyze in your report is determined by your group number, which I will assign.
3. Prepare your report. Be sure your report is neat, well organized, answers each question, and – *this is very important* – written using complete English sentences. Pay special attention to the comments about what your report should contain. NOTE: A Maple worksheet is not a report. You should use a word processor; formulas may be entered manually and tables and graphs may be pasted into the final document. You may attach your Maple worksheet(s) *with all output and plots deleted* as an appendix to your report.
4. Preliminary review. I will comment on and critique any draft project report that is turned in by 5P.M. March 6. These reports can be picked up from my office on available on Monday, March 16. (Preliminary reports are optional, but highly recommended.)
5. Feedback and assistance. I will provide feedback and general guidance on the projects until Tuesday, March 17. After this you are on your own.
6. Final report. The final report is due before 5P.M. on Friday, March 20, 1998.

PROJECT OPTION:

A. Logistic Population Models with Harvesting (Lab 1.2, p. 129)
Be sure to indicate how you know you have determined all possible (realistic) cases in your description of the long-term behavior of the solutions.

B. Cooperative and Competitive Species Population Models (Lab 2.1, p. 218)
You may ignore the second sentence of question 2. We have not yet talked about nullclines – although we will discuss this topic before Spring Break, so you want to include it in your report. All other parts of this project can be completed with the material previously discussed in class.

GRADING CRITERIA

CATEGORY	POINTS
Mathematical Content (completeness, accuracy, correctness of results)	15
Presentation (effective use of mathematical notation, and graphics)	6
Style (appearance, English usage and grammar)	4
Total	25