

## **Methods of Applied Mathematics**

## **Presentation Guidelines**

Each student should sign up for one Applications of Linear Algebra presentation and one Differential Equations Laboratory Presentation. The purpose of these presentations is to give students a chance to examine and learn some applications in more detail and to develop their oral presentation skills.

### **Expectations:**

#### **Applications of Linear Algebra presentations**

Please read the relevant section of Lay and prepare enough of that material for a 25 minute talk. Your intent is to teach the material to the rest of the class, so you should learn the material well. Do not attempt to present more material than you can reasonably cover in 25 minutes. Your talk should include motivational introduction to the material, interesting examples, which you explain and solve on the board. You may decide it is appropriate to prepare visual aids or handouts to help clarify your explanations. You may assign up to 2 problems for homework.

#### **Differential Equations Laboratory Presentation**

Read the relevant lab in Blanchard and Devaney and complete the lab answering all the questions. Prepare a 25 minute presentation explaining the purpose of the lab, the derivation of the model and the methods you employed to solve it. Present your findings. Feel free to explore your model in detail prior to the talk and explain the interesting aspects that you discover. For this presentation graphs and diagrams are likely to be important for conveying the model clearly. You may use overhead transparencies or the computer for this.

### **Tips for Successful Presentations.**

- Start every talk with a title and a brief overview of what the talk will be about.
- Motivate the talk by connecting it with what we have learned in the class or relating it to some interesting natural phenomena.
- Show enthusiasm for what you are presenting and engage your audience with questions.
- Have a logical and interconnected progression from more general questions or topics to a more focused discussion of specific details.
- Make good use of the chalkboard/overheads/computers to illustrate your talk. Audiences need tangible images and equations to facilitate their understanding.
- Define all terms that you use – do not assume your audience knows the terminology you have learned in preparing your talk.
- Tie together all the main points at the end of the talk, answer any questions you posed at the beginning of the talk.
- Rehearse your talk ahead of time and finish it on time.