The Role of the Graduate Research Mentor

As a Graduate Research Mentor (GRM) in the Research in Ecology Program, you will have more "hands on" contact with the student participants than the faculty mentor, who will serve primarily as an overseer of the project. On Mondays, Wednesdays and Fridays, you will lead your research team into the field or lab and guide your team members in their research efforts. You will be assigned an Undergraduate Facilitator (UF) who will act as your "right hand"--making sure that students stay on task and are listening and behaving. Teacher participants will also help in this respect, but the Undergrad Facilitator will be the primary disciplinarian, after you.

On most Tuesdays and Thursdays you will have no Research in Ecology duties. The only exception to this is during the last week, when your research team will be spending most of their time preparing their research Powerpoint presentation and written scientific paper.

Daily Duties

Monday/Wednesday/Friday

These are the "field days," and the Faculty and Graduate Research Mentors will determine the day's activities and where they will take place. The GRM will be in charge of loading supplies (lunches, drinking water, research equipment, first aid kits, etc.) into his/her rental van, starting at about 8:00am. While you do this, your UF will be in charge of your research team members, and keeping them on task with any pre-field or pre-lab work you might wish to assign them.

The schedule for the field days are flexible, and the activities listed on the Weekly Schedules (schedules from past years are available by linking to any past year's web site from www.bio.miami.edu/ecosummer) may vary. Mornings will almost always be spent doing field work or data analysis, and you'll be in charge of all group activities. As always, your UF is there to assist you in any task necessary, and should be an active member of your team. (If you have a UF who isn't living up to his/her responsibilities, I need to know immediately. Same for any team members who are causing difficulty). Lunch break should happen close to noon, with a return to work at about 1:00pm.

You may keep your team working for the full time of the program, which is 4:00pm. However, if you feel your group has worked hard enough, and is doing well enough for a "break," you may release them at 2:00pm, and your UF will take them to the UM Swimming Pool. If it is raining, however, you will have to stay with your group and keep them busy until the end of the day.

Teacher participants in the program receive a daily stipend for their participation. **If a teacher is absent, or "AWOL," or leaves early--even for a doctor's appointment or other reasonable excuse--PLEASE MAKE A NOTE OF IT ON THE ROLL SHEET, or tell me personally.** The teachers' stipends are adjusted according to their attendance at all required parts of the program, including participation on field/lab days.

The Research Project

The main purpose of their field/lab research is to learn how to do real scientific research under the guidance of you and your team's faculty mentor. This means that you should treat your
team as if they were a very small lab class. Both the Faculty Research Mentor and the Graduate Research Mentor should be fully involved in all stages of the project, from hypothesis formation, to experimental design, to data analysis, to completion of the finished work. Student and teacher participants should do the bulk of the actual work under your guidance. Resist the temptation to do their work for them!

With the help of your Faculty Research Mentor, provide your team with any special handouts or reading material that you feel is pertinent to their work. You may take afternoons or any time on field days to teach them about any specific statistical tests you'll be using, and any special techniques they'll be using in their research.

If your group is making good progress on their research, and would not suffer from a "day off," we encourage you to schedule field trips of a scientific nature to places such as Everglades National Park, Biscayne National Park, Matheson Hammock, Big Cypress, Butterfly World, Fairchild Tropical Gardens, or any other place of interest where you can teach them additional aspects of the topic you'll be working on with them. We hope every team will be able to take one or two "extra" field trips over the course of the program.

During the last week of the program, your group should be ready to compile their data into a research paper in proper scientific format. Although they will be having a writing class every Tuesday and Thursday, please feel free to teach them the proper way to write a scientific paper, and encourage them to write this on their own. This is their learning experience, and it's more important that they learn something than to have an absolutely perfect, journal-ready paper. (In other words, don't do their work for them!)

On the last Saturday of the program, we'll have a morning Recognition Ceremony/Research Symposium during which each team will present their research as a Power Point presentation that you will help them design and create. The presentation should last about 10-12 minutes, with a bit of time left for questions at the end.

Before the end of the program, we ask that you provide the Program Coordinator with:
1. A hard copy of your team's research paper
2. An electronic copy of the paper (a) in MS Word format and (b) with all figures and tables in a separate document. All figures and tables should be saved in .jpg format.
3. An electronic copy of your team's Powerpoint Presentation

**Final Grading of Participants**

At the end of the program, we will ask for your input on your student team members' grades. They receive high school credit for this program, so their grades will have a lasting effect on their academic records.