Appendix A: Worksheet of possible questions for faculty to consider to help determine their expectations and goals for their mentees

- How will the research topic be determined for your mentees?
  - for undergraduate students?
  - for graduate students?
  - for postdocs?
- How will the timetable be determined for your graduate student’s program?
  - Does your program provide general guidelines?
  - Do you have your own specific timetable for your mentees?
- How often will you meet? Weekly, daily, monthly?
  - Who will determine the agendas for the meetings?
- Will you hold research group meetings?
  - If so, how often will you meet?
  - Who will present?
  - Will research and/or journal publications be presented?
- Will you have annual or biannual reviews of your graduate student’s progress? If so, what will constitute the review?
- How will your grad student be introduced to the appropriate services and facilities of your department and the university?
- Will you provide peer mentors or buddies for incoming graduate students?
- What are your rules or guidelines for authorship on publications and presentations?
  - How will you determine the authors, and order of authorship, for publications and presentations?
- For research publications and presentations, who will create the first draft?
- How will you determine when a graduate student is finished with their research and ready to start writing their dissertation?
- How involved will your graduate students be involved in writing research proposals?
- How will your graduate students be funded?
  - How will your student learn about various funding sources?
  - How will your students be trained to learn how to effectively apply for external funding?
- How will your graduate students become prepared for future careers after completion of their degrees?
  - How will the graduate students assess and develop their professional skills to consider various career options?
You will be a team player

✓ Attend and actively participate in all group meetings, as well as seminars that are part of your educational program. Participation in group meetings does not mean only presenting your own work, but providing support to others in the lab through shared insight. You should refrain from using your computer, Blackberry, or iPhone during research meetings. Even if you are using the device to augment the discussion, it is disrespectful to the larger group to have your attention distracted by the device. Do your part to create a climate of engagement and mutual respect.

✓ Strive to be the very best lab citizen. Take part in shared laboratory responsibilities and use laboratory resources carefully and frugally. Maintain a safe and clean laboratory space where data and research participant confidentiality are protected. Be respectful, tolerant of, and work collegially with all laboratory colleagues: respect individual differences in values, personalities, work styles, and theoretical perspectives.

✓ Be a good collaborator. Engage in collaborations within and beyond our lab group. Collaborations are more than just publishing papers together. They demand effective and frequent communication, mutual respect, trust, and shared goals. Effective collaboration is an extremely important component of the mission of our lab.

✓ Leave no trace. As part of our collaborations with the Center for Limnology and other research groups, you will often be using equipment that does not belong to our lab. I ask that you respect this equipment and treat it more carefully than our own equipment, Always return it as soon as possible in the same condition you found it. If something breaks, tell me right away so that we can arrange to fix it. Don’t panic over broken equipment. Mistakes happen. But it is not acceptable to return something broken or damaged without taking the steps necessary to fix it.

✓ Acknowledge the efforts of collaborators. This includes other members of the lab as well as those outside the lab. Don’t forget important individuals like Dave Harring at the CFL and Jackie Cooper at CEE.

You will develop strong research skills

✓ Take advantage of your opportunity to work at a world-class university by developing and refining stellar research skills. I expect that you will learn how to plan, design, and conduct high quality scientific research.

✓ Challenge yourself by presenting your work at meetings and seminars as early as your can and by preparing scientific articles that effectively present your work to others in the field. The ‘currency’ in science is published papers, they drive a lot of what we do and because our lab is supported by taxpayer dollars we have an obligation to complete and disseminate our findings. I will push you to publish your research as you move through your training program, not only at the end. Students pursuing a Masters degree will be expected to author or make major contributions to at least one journal paper submission. Students pursuing a doctoral degree will be expected to be lead author on at least two journal papers submissions, preferably three or four.

✓ Keep up with the literature so that you can have a hand in guiding your own research. Block at least one hour per week to peruse current tables of contents for journals or do literature searches. Participate in journal clubs. Better yet, organize one!

✓ Maintain detailed, organized, and accurate laboratory records. Be aware that your notes, records and all tangible research data are my property as the lab director. When you leave the lab, I encourage you to take copies of your data with you. But one full set of all data must stay in the lab, with appropriate and accessible documentation. Regularly backup your computer data to the Bacteriology Elizabeth McCoy server (see the wiki for more instructions).

✓ Be responsive to advice and constructive criticism. The feedback you get from me, your colleagues, your committee members, and your course instructors is intended to improve your scientific work.
WHAT YOU SHOULD EXPECT FROM ME

✓ I will work tirelessly for the good of the lab group; the success of every member of our group is my top priority, no matter their personal strengths and weaknesses, or career goals.

✓ I will be available for regular meeting and informal conversations. My busy schedule requires that we plan in advance for meetings to discuss your research and any professional or personal concerns you have. Although I will try to be available as much as possible for “drop in business”, keep in mind that I am often running to teach a class or to a faculty meeting and will have limited time.

✓ I will help you navigate your graduate program of study. As stated above, you are responsible for keeping up with deadlines and being knowledgeable about requirements for your specific program. However, I am available to help interpret these requirements, select appropriate coursework, and select committee members for your oral exams.

✓ I will discuss data ownership and authorship policies regarding papers with you. These can create unnecessary conflict within the lab and among collaborators. It is important that we communicate openly and regularly about them. Do not hesitate to voice concerns when you have them.

✓ I will be your advocate. If you have a problem, come and see me. I will my best to help you solve it.

✓ I am committed to mentoring you, even after you leave my lab. I am committed to your education and training while you are in my lab, and to advising and guiding your career development – to the degree you wish – long after you leave. I will provide honest letters of evaluation for you when you request them.

✓ I will lead by example and facilitate your training in complementary skills needed to be a successful scientist, such as oral and written communication skills, grant writing, lab management, mentoring, and scientific professionalism. I will encourage you to seek opportunities in teaching, even if not required for your degree program. I will also strongly encourage you to gain practice in mentoring undergraduate and/or high school students, and to seek formal training in this activity through the Delta program.

✓ I will encourage you to attend scientific/professional meetings and will make an effort to fund such activities. I will not be able to cover all requests but you can generally expect to attend at least one major conference per year, when you have material to present. Please use conferences as an opportunity to further your education, and not as a vacation. If you register for a conference, I expect you to attend the scientific sessions and participate in conference activities during the time you are there. Travel fellowships are available through the Environmental Engineering program, the Bacteriology Department, and the University if grant money is not available. I will help you identify and apply for these opportunities.

✓ I will strive to be supportive, equitable, accessible, encouraging, and respectful. I will try my best to understand your unique situation, and mentor you accordingly. I am mindful that each student comes from a different background and has different professional goals. It will help if you keep me in formed about your experiences and remember that graduate school is a job with very high expectations. I view my role as fostering your professional confidence and encouraging your critical thinking, skepticism, and creativity. If my attempts to do this are not effective for you, I am open to talking with you about other ways to achieve these goals.