

## Department of Botany Graduate Program Assessment: February 27, 2009

This document is completely original, but incorporates concepts from the following previously published materials:

UW-Madison Assessment Manual

Department of Botany Plan for Assessment of the Undergraduate Major & the Graduate Program October 1995

Department of Botany Survey of Graduate Students Fall, 2000 and responses (about 5)

Oklahoma State University Department of Botany Graduate Programs Assessment Plan 2002

UW-Madison Graduate School Assessment Plan 2006-7

University of Colorado at Boulder Graduate Assessment Plan

West Virginia University Graduate Program Assessment Overview

Stony Brook Assessment of the Graduate Program

North Carolina State University Introduction to Outcomes Assessment of Graduate Programs

### *I. Graduate Program Goals:*

**A. Educate Scientists.** Broadly stated, the purpose of the Botany graduate program is the education of future scientists in a diverse array of disciplines related to the botanical sciences. The mission of the Botany Department is to discover, maintain, and transmit knowledge concerning basic plant biology and display leadership in the biosciences.

- The department aims to attract the best possible graduate students.
- The department aims to provide admitted graduate students with the financial and research resources needed to achieve student goals.
- The department aims to help graduate students complete their degrees in a timely manner.
- The department aims to help graduate students gain the research skill sets needed for progression to the next career level.
- The department aims to challenge graduate students to reach the highest possible level of research achievement in theses, publications, research funding, research presentations, and teaching or research awards.
- The department aims to prepare graduate students to compete for positions in government, industry, and academia.

**B. Prepare Teachers.** The graduate program stresses the art of conveying information in the college classroom setting and beyond, and ways of assessing teaching success.

- The department aims to foster performance of graduate teaching assistants and instructors by providing essential resources and training.
- The department aims to encourage graduate students to take advantage of campus and disciplinary opportunities for training in the art of teaching.
- The department aims to match graduate student teaching interests with available teaching slots.

Date: June 1, 2009  
To: Alumni Grad Students with Botany Advisors  
From: David Baum, Professor & Chair  
Re: Solicitation of input from recent Alumni who graduated with a MS/PhD

The Department of Botany is conducting an assessment of our graduate programs as part of a broader, campus-wide assessment exercise.

For evaluative purposes, we are defining our graduate population to include all candidates for an advanced degree, whether a Master's degree or a Ph.D. degree, who are obtaining most of their graduate training under the tutelage of a Botany faculty member, regardless of whether the degree will be in Botany or a related department or program with which the major professor is affiliated.

We appreciate your time in completing this survey and we invite you to complete the attached questionnaire and return it to Suzanne Bader on or before September 7th.

If you have any questions concerning the purpose of our assessment exercise or the use to which the solicited information will be put, please get in touch with me. I want to assure you that the specific responses you provide here will be presented to the department in summary form only.

**DEPARTMENT OF BOTANY**  
**Survey of Alumni Graduate Students**

2009

As Phase 1 of our Graduate Assessment Exercise, the Botany Assessment Committee invites you to complete this form and return it to Suzanne Bader. None of the information you provide will be seen by anyone other than the members of the Assessment Committee except in aggregate or summary form. We thank you in advance for your cooperation!

**I. Academic Information**

1. Name \_\_\_\_\_

2. Degree received: Ph.D. M.S.

3. Current position:

4. Undergraduate training: Institution(s) attended \_\_\_\_\_

Degree: \_\_\_\_\_ Year received: \_\_\_\_\_ Major(s): \_\_\_\_\_

5. Any graduate training prior to enrollment in UW Graduate School? Yes No

If so, at what institution(s)?

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Degree(s): \_\_\_\_\_ Year received: \_\_\_\_\_

Major(s): \_\_\_\_\_

6. Any job experience prior to enrollment in UW Graduate School? Yes No

If so, how many years of job experience do you have?

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In what fields?

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7. Did you have any previous research experience? If so, please describe briefly.

8. Did you have any previous teaching experience? If so, please describe briefly.

9. What are your professional goals? \_\_\_\_\_

## II. Assessment of Previous Background and Training

Listed below are the seven goals that we have established for our own undergraduate majors. In each case, indicate by circling the appropriate number the helpfulness of your previous training, including but not necessarily limited to your undergraduate training, in acquiring your present level of competence in that goal. (Meaning of numbers: 1 = poor, 2 = fair, 3 = average, 4 = good, and 5 = very good)

Goal of Undergraduate Training	Helpfulness of Your Previous Training				
Broad education in plant biology	1	2	3	4	5
Rigorous training as a scientist	1	2	3	4	5
Research capability	1	2	3	4	5
Literacy (reading/writing/critiquing)	1	2	3	4	5
Numeracy (analysis; modeling)	1	2	3	4	5
Computer literacy	1	2	3	4	5
Documentation (keeping a notebook)	1	2	3	4	5

1. What do you regard as the greatest strengths of your previous education?
2. What do you regard as the greatest weaknesses of your previous education?
3. Are there specific courses that you now wish that you had taken previously? Why do you now feel that way? And why didn't you take the courses at the time?

## III. Reasons for Choosing the UW for your Graduate Education

1. For what reason(s) did you choose the UW for your graduate education?
2. Did you give serious consideration to other institutions? If so, to which ones and why did you decide against them?
3. Based on your experience, are you happy with your decision to come to Wisconsin? Why or why not?



4. **Weaknesses of your graduate education:** What are the greatest weaknesses of the graduate training you have received? Be as specific as you can.
  
  
  
  
  
  
  
  
  
  
5. **Suggested changes:** If you could make 2-3 specific changes in the way you and your peers were trained as graduate students, what changes would you suggest?
  
  
  
  
  
  
  
  
  
  
6. **A sense of belonging:** Did you feel a part of the Botany Department? If so, what contributed to that? And if not, what changes would make it more likely that you would have felt connected?
  
  
  
  
  
  
  
  
  
  
7. **Other comments.** Are there any additional comments you care to make concerning the quality of your graduate experience?

- The department aims to recognize outstanding graduate teaching performance with awards.

## *II. Expected Outcomes*

### **A. Successful completion of courses in the program track of choice.**

- Graduates will demonstrate understanding of the basic properties of plant life from the subcellular to the ecosystem level of organization.
- Graduates will be able to perform critical thinking and demonstrate oral and written communication skills.

### **B. Successful defense of thesis Master's or Ph.D. research thesis.**

- Graduates will demonstrate competence in application of the scientific method.
- Graduates will demonstrate technical competence appropriate to the research subfield.
- Graduates will complete an original research project of quality suitable for publication in a refereed journal.

### **C. Successful completion of teaching assignments, if appropriate.**

## *III. Methods for Assessment of the Graduate Program*

**A.** The Assessment subcommittee of the Graduate committee will annually conduct **student interviews** by electronic means to gain understanding of the changing and diverse educational needs of graduate students and their perspectives on aspects of their experiences with the Botany Department that have facilitated or hindered their education. Information obtained about courses, degree requirements, research experiences, teaching opportunities, advising, and other departmental services will be used to recommend actions for general program enhancement.

**B. Evaluations of academic progress and thesis research** will be performed by an advisory committee composed of faculty and other experts, as specified by the Graduate School. The advisory committee will annually monitor academic performance, providing guidance and feedback regarding goals and expectations to students at meetings held at least once a year. Ph.D. thesis committees will evaluate the written thesis, a public oral presentation of the research, and an oral defense. M.S. theses will be presented during an oral defense to a departmental committee. A staff member of the Botany Department will keep a list of graduate defense results for use by the Assessment subgroup of the departmental Graduate Committee.

**C. Graduate student publications** in peer-reviewed journals, **research presentations at national or international conferences**, and **external funding awards such as NSF Fellowships** will be tallied by staff associated with the Graduate Committee, and trends will be reported annually to the faculty.

**D. Evaluations of teaching** provided by students and supervising faculty will be monitored for quality by the TA assignments subgroup of the Graduate Committee. Trends will be examined by the Graduate Committee and reported to the department on an annual basis.

**E. Statistics** will be kept on numbers, quality (GRE/GPA), and diversity of applicants and matriculated graduate students, as well as time-to-degree-completion and graduation rates. The Recruitment and Admissions subgroup of the Graduate Committee will annually evaluate these numbers and make related recommendations for program change, as needed.

**F. Postdegree tracking** will be accomplished by electronic surveys and interviews at regular intervals of alumni whose contact information is maintained in a department database. The survey data will be used to understand alumni perceptions of the strengths and weaknesses of their educational experiences while in the program and how well the program prepared them for subsequent endeavors. Alumni will be asked to provide information about their career status.

The department will continue to produce an alumni newsletter that is available on the department's website; this newsletter is a potential mechanism for distributing surveys and soliciting interviews.

**G. External reviews** of the graduate program will continue to be a normal part of the decadal department review process conducted by the college.

#### *IV. The Feedback mechanism: Dissemination and Application of Assessment Information*

Every three years, or at the request of the College or Graduate School, the Assessment subgroup of the Departmental Graduate Committee will collate assessment materials and prepare a written report for consideration of the Graduate Committee, which will make recommendations for changes, if needed, to the department.

Elements of the report will include 1) a summary of the goals of the graduate program, 2) a summary of ways in which Botany graduate students are successful in achieving the educational goals set out by the department, 3) suggestions for changes in the program, if needed, and 4) suggestions for changes in the assessment process, if needed.