June 18, 2012

Stan Albrecht, President
Utah State University
1500 Old Main Hill
Logan, Utah 84322-1500

Dear President Albrecht:

The Five-Year Plan for Graduate Programs for the Department of Wildland Resources is attached. It covers MS and PhD degrees in forestry, range science, wildlife biology, and ecology. It is based on the self assessments of the programs we conducted over the last several months, and has involved most of our faculty. We feel good about where our program has been, and with the changes proposed here we feel even better about the future.

We hope that this meets your needs. Please let us know if you need additional information or clarification.

Sincerely,

Johan du Toit
Department Head until 30 June 2012

Michael Kuhns
Interim Department Head as of 1 July 2012

Karen Beard
Director of Graduate Studies
Five-year Plan for Graduate Programs  
USU Wildland Resources Department

Executive Summary:

We have a strong graduate program covering eight degrees in forestry, range science, wildlife biology, and ecology. The program can be stronger though, and we suggest some ways this can happen in this plan, as well as some numerical measures to quantify that improvement. In recruiting, our intention is to increase inquiries about our programs by 20%, increase applications by 10%, increase our minority graduate enrollment to 20%, and increase average incoming graduate student GPAs by 0.2 points. In mentoring, we intend to increase student publications by 10% and maintain nearly complete career or graduate school placement for our graduate students. In management, our intention is to reduce the average time it takes for an MS student to complete the degree program by 20% to 3 years, decrease time for a PhD program by 5% to less than 5 years, and we will offer at least 10% of our graduate courses as ‘espresso’ (short and intense) courses. Finally, in funding, we intend to at least maintain our current level of grant funding per faculty member and student stipend levels, corrected for inflation.

Introduction

This plan covers the period July 1, 2012 to June 30, 2017. The plan was written using input from a self-study of our programs conducted by faculty in the Wildland Resources Department, including face-to-face group meetings for each of the four degree programs (forestry, range science, wildlife biology and ecology) and incorporating the faculty’s reactions to drafts of these documents. Because we determined that there were many similarities in our graduate degree programs, we have written one plan that covers all of those degrees:

- Forestry – MS and PhD
- Range Science – MS and PhD
- Wildlife Biology – MS and PhD
- Ecology – MS and PhD

The plan is organized by the four critical self-study areas of recruiting, mentoring, management, and funding. Aspects of improvement are listed with metrics or measures (in italics) and these are followed by descriptions of the specific actions to be taken.

Recruiting

Improvement Measures: We generally agree that given time, funding, and the number of faculty members associated with our degree programs, we have the maximum number of graduate students we are able to mentor at this time. However, with increased funding and/or faculty we
may be able to accept more students, and we certainly could increase the quality of the applicant pool. Therefore, we aim to *increase inquiries about our graduate programs* by 20% over pre-plan levels and to *increase applications to our graduate programs* by 10%. We also will attempt to increase the diversity of students we reach during recruiting, and will aim to go from 14% *minority graduate enrollment now to 20%* during the plan period. We will attempt to *increase mean incoming graduate student GPA by 0.2 points* (on a 4 point scale) and to increase mean GRE scores by 10%.

1) The department website will be used to increase interest in our programs to better advertise the successes of our program and our graduate students. We will add a running recent event line that will include news for our graduate program and will highlight students getting papers published, fellowships, and other honors, and graduate student openings.

2) Information posted on the website above will also go on a Facebook page and/or other social media sites to advertise our department and our students. For example, an item about a student winning an award for a poster presentation can go on our website, can be emailed by that same person to Facebook where it will be automatically posted, and all the information going on the Facebook page can be automatically added to Twitter, extending our reach. With the Facebook site, we also can encourage current students to post interesting material – to participate, not just to observe.

3) We will add an email form to our website and social media sites that prospective students can fill out to enquire about our graduate programs. Typical questions like how to apply to the graduate school can be answered with stock emails while others may warrant a more personal response.

4) We will set aside $2,000 per year to bring top graduate students in to visit our campus with a special emphasis on minority students. We will ensure that our faculty know that the Graduate School already provides us with $1,000 per year for recruiting so that faculty can compete for exceptional students. We also will approach the graduate school for additional help with recruiting.

5) Our departmental advisory board will be asked to help promote our programs.

6) Applicants that decline offers of admission to USU will receive an email from our department asking why they didn’t come to USU. This information will be reviewed annually and recruiting techniques will be adjusted accordingly.

7) Our policy will be to no longer request exceptions to the minimum requirements set by the graduate school of 40% for GRE and 3.0 for GPA. This will increase the mean GRE scores and GPAs of our students, increase our ability to acquire fellowships for them, and increase our overall visibility.
8) We will target graduate fellowships provided by our department for minorities when it can result in us recruiting a good student.

9) Cooperate with the USU Ecology Center to recruit good students, especially since many of our students end up getting their degree through the Ecology Center.

Mentoring

Improvement Measures: In general we believe we do a good job mentoring our graduate students, but quality is difficult to measure. However, we can monitor a few indirect measures. We will follow mean publications per student per year, which currently is running 0.19 to 0.25 for MS student and 0.56 to 0.76 for PhD students, depending on degree program. We will work to increase these figures by 10%. We also will maintain nearly complete placement for our graduate students in appropriate careers or further graduate study.

1) To get better feedback on our graduate mentoring we will have finishing graduate students complete an online survey to determine how well they feel our faculty are advising students and how we can improve.

2) We currently have a pre-project graduate symposium that has been very successful. Every graduate student is required to participate in this symposium once during their tenure at USU. Every MS student will still be required to participate in their first year in the program, but we now will have PhD students participate in their first year and at least one more time during their second or third years to give us an updated report on their dissertation research.

3) Every year PhD-level graduate students will be encouraged to prepare and submit one funding proposal for external review during their time with us, which should improve both mentoring and funding.

4) Every year following their first year, PhD students will be encouraged to submit one paper or make one presentation.

5) We already have one graduate student who represents other graduate students at our department meetings to provide student feedback to the department and the faculty. We would like to encourage more open dialogue and feedback from the entire graduate community. Before each department meeting, the Director of Graduate Studies will question graduate students to get focused feedback on relevant questions and issues, which can then be shared with the faculty.

6) We currently have evening mentoring sessions for graduate students throughout the academic year that focus on: 1) how to navigate the graduate process, 2) life after graduate school (jobs, etc.), 3) how to give a professional presentation, and 4) how to write an abstract and
preparing for the pre-project symposium. While 97% of our graduates in all programs are successfully placed in appropriate careers or further grad school, we are interested in adding a session on interview/employment skills. Though we will poll graduate students to see what interests them the most, we already have requests for a session on how to prepare a resume/CV and how to use USA.jobs to find employment.

Management

Improvement Measures: Our graduate programs could use some simplification and condensation. One way in which we will assess the effectiveness of our efforts at this will be to monitor the time it takes students to finish their degrees. On average, MS students take 3.67 years to complete their degrees and PhD students take 5.04 years to complete their degrees. We seek to reduce the MS time to graduation by 20% to 3 years. We seek to reduce the PhD time to graduation by 5% to less than 5 years for those students starting with an MS degree. Also at least 10% of our graduate course offerings will be espresso courses by the end of the plan period.

1) We are going to reduce the credit requirements for our PhD degrees. We intend to lower the required number of credits for a PhD both for students arriving with an MS degree and for students without an MS degree. The exact number of credits that will be required for these degrees remains to be determined. However, this change will assist in graduate student funding because degree programs will be shorter and may help with recruiting as well. The credit requirement will be discussed and decided on at our retreat this summer.

2) We plan to drop all concentrations in the Forestry, Range and Wildlife degrees, and add two concentrations to our Ecology degree: Forest Ecology and Rangeland Ecology (Wildlife Ecology already exists). Already 91% of our students graduate without concentrations so this should simplify and clarify what we offer with little loss, which will help simplify program management.

3) Suitable graduate courses will be converted into “espresso courses” where content is narrowed and focused over a shorter period of time for less credit, but with more of these small courses offered. This will make aspects of our courses more accessible to students. For example, we have done this with our graduate Population Ecology course. It has been divided into three separate sections and students have the option of taking all three sections over the course of the semester or any of the three sections depending on their interest and needs. We have plans to do this for several other courses, especially those focused on learning “tools”. This may reduce the time it takes students to complete their programs because they can take just the courses they need. In addition, it should assist with broader learning as students can take more focused courses and potentially be exposed to a broader range of “tools”.
4) This summer we will discuss and possibly alter our policy regarding the composition of graduate committees. Many of our committees have adjunct members outside USU. We will discuss whether we want to limit the number of non-USU members on committees in the future or remain flexible depending on circumstances.

5) In the survey mentioned in point 1 of the Mentoring section, we will also ask MS students about factors that might have led to them taking a long time to complete their degrees.

Funding

Improvement Measures: In nearly all cases our graduate students are funded through projects paid for by grants from agencies and others. Grant funding per faculty member and stipend levels are fairly good (stipends are about $15K for MS and $21K for PhD). A specific funding-related measure is that we will at least maintain our current level of grant funding per faculty member and student stipend levels, corrected for inflation.

1) We will consider paying a financial inducement from departmental funds for graduate students to publish their research. For example, for each publication indexed in ISI that is produced by a graduate student, $500 from departmental IDC returns could be transferred to the major advisor’s IDC account for appropriate expenses like publication costs, attending meetings, etc. This would increase the incentive for advisors to mentor graduate students on how to publish manuscripts, encourage graduate students to conduct publishable research, and generally increase the incentive for faculty and graduate students to publish. At our retreat this summer we will discuss whether we want to spend money this way and how to go about it. Some faculty members prefer using these funds to help cover tuition waivers, although they could direct their $500 publication payments to this purpose if they wish.

2) We will make it clear to all faculty that there are funds available through the department for student travel to present at a meeting for work they conducted at USU even if they have already left.

3) As mentioned previously, we will set aside $2,000 per year to bring top graduate students to come visit our campus with a special emphasis on minority students.

4) As mentioned previously, during their time with us every PhD student will be encouraged to submit one funding proposal for external review, which should improve both mentoring and funding.

5) Most of our graduate students get an Ecology degree with a concentration in their specific area of study. An advantage of this is that there are dedicated funds associated with the Ecology degree that other programs can not currently compete with – funding for research grants, travel to professional meetings, and paying page charges for publications. Reducing the number of
degree concentrations may mean even more students will get degrees through the Ecology Center, which leaves students better supported financially.

6) We will deal with the loss of tuition waivers as fairly and efficiently as possible because it may seriously impact our ability to maintain the quality and competitiveness of our program. For as long as the money lasts, our priority will be to fund out-of-state tuition waivers for PhD students for one year, then out-of-state tuition for MS students for one year, then in-state tuition for PhDs. Students will be required to apply for residency so out-of-state waivers are not needed after one year. Out-of-state tuition for international students who cannot become residents can be covered for longer than one year. Waivers will come from grad school funds and when those are exhausted departmental funds will be used when available.

7) Our department will likely have a number of retirements in the next five years and new faculty members will need to be hired. Though there will be many factors influencing the fields and specific interest areas that these people will be hired in, we expect to recruit new faculty members who are working in important and exciting areas that will attract funding and excellent graduate students.