

ADVANCE Pre-Tenure Faculty Workshop "Taking the Pulse of Your Graduate Students' Experiences"

Graduate Student Evaluation Forms

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Cossairt Lab Annual Personal Evaluation

Please rate yourself according to the above classification scale in the categories listed below. Explain your ratings; on the back of this sheet brainstorm strategies for improvement. (Note, very few highly qualified and capable scientists will ever be able to achieve a "distinctive" rating.)

A) Work habit

Distinctive – Quality over quantity is of utmost importance. You work a solid 5.5 days per week and while you are at work, you are working. You are reading to further your knowledge of chemistry in general and the literature relevant to your project in between experiments. You plan your experiments for the next day before leaving for the night and arrive knowing your plan of action for the day. You are efficient and organized. No experiment is wasted in accomplishing your publication goals. You have a clear plan for completing your PhD.

Very Strong – You work hard in an efficient and organized manner. You are dedicated to your science and think critically about it to optimize your productivity. You may not always be running the right experiments, but persistence pays off. You work at least 5.5 days per week and are well focused during that time.

Strong – You work more hours than you need to and run more experiments than you need to due to lack of organization (quantity over quality). You are on top of the current and past literature relevant to your project. You know what to do to further your project each work day, but may not plan more than a day or two in advance. You watch youtube or read the news periodically throughout the day, but this does not interfere with or take precedent over chemistry ever.

Issues – You work standard hours, but do not arrive knowing what you will do that day. You waste significant amounts of time inefficiently planning your day, but you are able to execute one or two experiments/tasks per day. You have no clear path laid to obtain your PhD but you are accomplishing some science. There is some hope.

Council to Leave – You accomplish on average one experiment per week. You are not working steadily to progress your project. Your work habits are erratic and disorganized. You spend a significant portion of your day on non-chemistry related items that are not relevant to furthering your career or science. You "work" or are at work the bare minimum of hours (9-5, 5 days). You do not plan your experiments and do not know what experiments you need to run on a day-to-day level. You have no idea what your research project is or how it fits into the themes of the lab and broader research community.

B) Ability to work independently and creatively

Distinctive – You contribute new knowledge and understanding to the group on your own project and those of others. You are able to read the literature, interpret your own data, and synthesize this information to form well-reasoned explanations of your experiments. You dictate the direction of your project with a clear and focused scientific approach. You are able to design experiments that are not simply new takes on known themes, but are able to develop chemistry that contributes to expanding our understanding of science in novel ways. You don't need much direction but know exactly when you do need it and do not hesitate to seek out input from members of your scientific community.

Very Strong – You are capable of long-term project planning, but are lacking some confidence in executing new directions. You operate independently on a day-to-day basis with little needed outside input. Others look to you for experimental advice and creative solutions to experimental challenges. If left

to your own devices, you would publish papers that could be easily published in tier-2 journals, but need a bit of guidance to push boundaries.

Strong – You are capable of leading your own project for weeks at a time, but still need help organizing for the long term and deciding which experiments will answer the questions you are asking. You come up with creative solutions to experimental challenges. Your approach is typically the one another well-trained person in your field would take when presented with the same challenge. You are persistent and do not give up easily.

Issues – You have difficulty designing experiments to meet your long-term objectives. You can operationally run your experiments, but do not do the right ones in general. You are able to reproduce experiments in the literature, but your lack of creativity limits your ability to go further.

Council to Leave – You are unable to design your own experiments or interpret your own data and do not seek the help or advice of others. You are not interested in learning new skills or helping others when called upon. You allow your project to sit for weeks without progress and wait for others to point out to you that this is happening. You have difficulty reproducing experiments in the literature that are central to your project.

C) Group meeting and presentation skills

Distinctive - Exceptionally well thought-out presentations with complete structure (intro, results, conclusions), completed with only 1-3 typographical errors, publication ready graphics, complete knowledge of all relevant literature with complete citations, clear vision of next steps for research based on findings

Very Strong - Complete presentation with all needed graphics and data presented in clear format, only a few minor errors in graphics, adequate support with relevant literature and citations, good interpretation of results with 3-4 next experiments in mind

Strong - All relevant data presented with sound interpretation, quality of graphics is adequate with only some errors, only few key literature references, mostly complete interpretation of results but able to reach conclusions with direction, only single next step understood

Issues - Prepared to discuss but without appropriate data presented or schemes created, errors in logic and interpretation of results, not clear understanding of why experiment is relevant to objective of project

Council to leave - No presentation ready or prepared, lack of any structure in presentation, major errors in the results and findings presented, no knowledge or citation of relevant literature, unable to make any logical conclusions

D) Lab notebook and record keeping

Distinctive – Exceptionally well thought-out notebook entries with complete information (purpose, reagents table, procedures and observations, conclusions, future directions) and all relevant literature citations. Organized data maintained in print and digital form. All digital data is backed up in at least 2 locations on a weekly basis.

Very Strong – All information necessary to accurately repeat the experiment is present in the notebook. Comments are made with regards to stumbling blocks and possible fixes. You have a clear purpose and

sound conclusions. Your data is organized in print and digital form in a single location and is regularly backed up on a weekly basis.

Strong – All information necessary to accurately repeat the experiment is present in the notebook. Data is organized in print and digital form and is backed up monthly.

Issues – Data is disorganized (but complete) and notebook is difficult to follow. Conclusions are missing or not based on clear interpretation of the experimental observations. You do not regularly backup your data.

Council to Leave – No trained chemist would be able to follow what is presented in your lab notebook due to lack of information. No structure is present in data organization, data is difficult to find (or missing), and data is not regularly backed up.

E) Leadership and initiative

Distinctive – Exceptional ability to identify and solve problems related to the lab both in terms of research and lab functioning. You never have to be told something needs to be done in the lab; you have already done or contacted someone to do it. This applies to organization, supplies, cleanliness, safety, experimental design, equipment, etc. You are always willing and able to help others in matters of research and experiment design when asked and offer help when it is needed.

Very Strong – You go into lab everyday wanting to make it a better environment for yourself and your colleagues. You do at least one thing every day to positively impact the lab atmosphere that you were not asked to do.

Strong – You care about the efficient functioning of the lab and are available and able to help others. You may not notice everything right away, but when you notice it, you take care of it promptly, never saying "I can do it tomorrow".

Issues – You are conscious of problems in the lab but are generally lazy or ignore them. You would rather wait for others to notice when things need to be taken care of than take the initiative. You will contribute to a positive laboratory environment if specifically asked to do so.

Council to Leave – You are oblivious to problems in the lab and do not notice or care when obvious things need to be attended to. You contribute in no way to making the lab a better environment in which to conduct research and impact the lab functioning detrimentally.

SEMIANNUAL ACTIVITY REPORT-Version 1 ALEXANDER GROUP December 2014

Due: December 5, 2014

Name:
Please fill out the following form. My goal is to help you to succeed in graduate school and beyond. The information below will help me to help you succeed and to open up lines of communication. After you fill out the form and return it to me we will meet and discuss. After our meeting I will write a letter summarizing our meeting. The goal is to make this a helpful and rewarding experience, to improve our advisor/advisee relationship, to improve your graduate school experience in general, to make my expectations clear, and for you to have a clear idea of your goals and priorities, and your strengths and weakness.
1) What did you accomplish in the last ~6 months? Is this consistent with or different from your goals and priorities for this time period? If it is different, why did it change?
2) What are your goals for the next 6 months concerning research, coursework and outreach activities? Please list in approximate order of priority. For research, also list papers in prep, conference abstracts, proposals, etc.
3) Please list any additional personal career development goals you may have, such as working on your CV, web site, public speaking skills, work/life balance, etc.
4) What are your long-term career goals? It's OK if you don't know, or if this changes every 6 months, but if you do know I can try to steer you in the right direction.
5) What is working about our advisor/advisee relationship?
6) What is not working about our advisor/advisee relationship? What can we change to make it work better?
7) Would you like to see anything done differently in how I am running the group, such as group meetings, lab organization and communication, etc?

9) Please note here anything else you would like to discuss (such as travel to meetings).

8) What are your vacation plans for the next 6 months?

SEMIANNUAL ACTIVITY REPORT-Version 2 ALEXANDER GROUP December 2014

Due: December 5, 2014

Name:
Please fill out the following form. My goal is to help you to succeed in graduate school and beyond. The information below will help me to help you succeed and to open up lines of communication. After you fill out the form and return it to me we will meet and discuss. After our meeting I will write a letter summarizing our meeting. The goal is to make this a helpful and rewarding experience, to improve our advisor/advisee relationship, to improve your graduate school experience in general, to make my expectations clear, and for you to have a clear idea of your goals and priorities, and your strengths and weakness.
1) What did you accomplish in the last 6 months? Is this consistent with or different from your goals and priorities for this time period? If it is different, why did it change?
2) What are your goals for graduation? When do you expect to graduate? What papers do you expect to write between now and then? Please estimate a timeline for completion of this work.
3) What are your goals for the next 6 months concerning research, coursework and outreach activities? Please list in approximate order of priority. For research, also list papers in prep, conference abstracts, proposals, etc.
4) Please list any additional personal career development goals you may have, such as working on your CV, web site, public speaking skills, work/life balance, etc.
5) What type of jobs are you looking for after graduation? How are you going about finding a job? What is the timeline for these activities?
6) What are your long-term career goals? It's OK if you don't know, or if this changes every 6 months, but if you do know I can try to steer you in the right direction.
7) What is working about our advisor/advisee relationship?
8) What is not working about our advisor/advisee relationship? What can we change to

make it work better?

9)	Would you like to see anything done differently in how I am running the group,	such
as	group meetings, lab organization and communication, etc?	

- 10) What are your vacation plans for the next 6 months?
- 11) Please note here anything else you would like to discuss (such as travel to meetings).



Graduate Scholarly Activity Report

Section 1

journals

Please fill out all sections. The items on this page may either be private (default) or you may choose to make them public on your directory detail page. Your advisor(s) will be able to view this information, as will Student Services and the GPC.

Courses	Private
Please enter any courses your taught or assisted with. The fields are Qua Course #, Credits, Enrollment, % Responsible, Co-Instructor.	arter Year, Dept,
Class Talks	Private
Please enter any course talks your gave. The fields are Date(s), Dept, Co Type of Talk or Title.	ourse #, Location,
Awards	Private
Please list any awards or honors you have received. The fields are Award Awarded, Awarding Body/Group, Description of Award.	l Name, Date
Professional Presentations	Private
Please list any invited, conference, event, or other non-class talks or pos presented.	ters you have
Service	Private
Please list any service you have performed. Service is broadly defined an serving on committees, assisting or leading conferences, outreach, and re	

Recent Publications (5 years)		Private
Please list any recent publications you may have. You should enter each standard format of your choice.	referei	nce in a
Research Interests		Private
Please briefly describe your research interests. This description can be mean directory listing.	nore de	etailed that
Personal Statement		Private
Please enter your personal statement here. It should cover your current re	esearc	ch, teaching,
and service activities, as well as future goals for these categories.		
CV		Private
Please enter your CV here. Formatting will not be preserved so you shoul	d douk	
it is still readable.		

News	Private
Please list any news stories involving you or your research that you woul The format should be Description http://www.ess.washington.edu	d like to include.

Save and Continue

Section 2

	Biographical		
Admitted (ex Aut/2010):			
Total Quarters on Leave:			
	Academic Progress		
Program:			
Area of Specialty:			
Certificates or Dual-Title Programs:			
Current GPA:			
Experiential Learning			
Mileston	nes - Completed or An	ticipated	
For the following items please enter your answer in either Qtr/Year format (ex Aut/2010) or enter N/A if it is not appliciable to you.			
Prelim Exam:		- Completed - Anticipated	
MS Exam:		- Completed - Anticipated	
MS Paper or Thesis Submitted:		- Completed - Anticipated	
General Exam:		- Completed- Anticipated	
PhD Exam:		- Completed- Anticipated	
PhD Thesis Submitted:		- Completed - Anticipated	
	Committee		

Please indicate non-UW members with an asterisk(*). Please note that the Commitee Chairs must be in our database for access and email purposes. If someone is not listed here please email their name and email address to comphelp@ess.washington.edu so that they may be added.

Туре	Supervisory
Committee Chair:	
Committee Co-Chair:	
Committee GSR:	
Committee Member:	
Last Meeting with Committee:	

Please provide an explanation if:

Passed the Prelim Exam, but have not established your M.S. or Ph.D. Supervisory Committee. Why not?

Earned an M.S. degree, but have not established your Ph.D. Supervisory Committee. Why not?

Annual Activity:

Answer the following questions. Please be detailed, there should be at least a couple paragraphs.

- What research progress have you made over the last 12 months? This can include field/lab/theoretical work, papers/abstracts, and graduate program milestones.
- What department or community activities have you participated in over the last 12 months? This can include committees, outreach, and event organizing.
- What goals do you have for the coming year, especially for research progress and department/community activities?

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	Course Reporting Form
You may download and edit your prior s year.	submission if you turned one in rather than starting over each
Transcript Form	Download Form(PDF)
The 2013-2014 password is	

Section 3

Funding Information

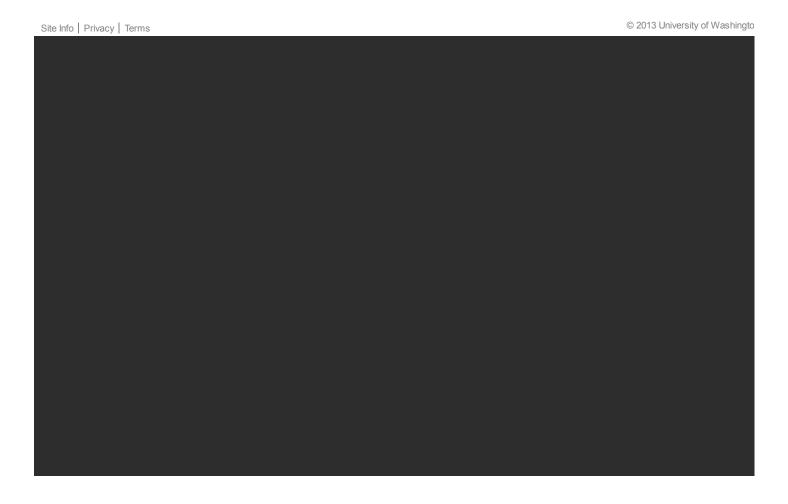
		Current Year	r	
	Autumn	Winter	Spring	Summer
Туре	Select an Option	Select an Option	Select an Option	Select an Option
Source or Course Pref				
Notes				
		Mosst Voor		
		Next Year		
	Autumn	Winter	Spring	Summer
Туре	Autumn Select an Option		Spring Select an Option	Summer Select an Option
Type Source or Course Pref		Winter		

Section 4

Faculty Review	
Please note that students are allowed to review all documents relating to their annual progress.	
Is the student's progress satisfactory?	○ Yes ○ No
Concerns or Comments about the student's progress?	
I have met with my student and discussed their progress.	
	Sign using your email
The funding plans are accurate to the best of my knowledge.	
	Sign using your email

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"Collaborating with Students," from *On the Cutting Edge: Strong Undergraduate Geoscience Teaching*, National Association of Geoscience Teachers http://serc.carleton.edu/NAGTWorkshops/earlycareer/research/students.html#guidelines

Resources

Faculty guidelines for graduate students, from

- Richelle Allen-King, University at Buffalo, SUNY. (Microsoft Word 49kB Sep15 10)
 Richelle's guidelines welcome students to her lab group and outline her expectations for them and for herself, and also alert them to her pet peeves.
- Kristie Franz, Iowa State University. (Microsoft Word 39kB Jun26 09)
 Kristie's guidelines explain her philosophy, describe her expectations re: time management and progress, and also spell out what she will provide for copying, printing, and other day-to-day expenses.
- <u>Tracy Gregg, University at Buffalo, SUNY.</u> (Microsoft Word 26kB Oct4 05)
 Tracy's guidelines spell out her expectations for her students re: her lab space and equipment, weekly meetings, time management, and communication.
- Todd Halihan, Oklahoma State University. (Microsoft Word 36kB Nov10 05)

 Todd's guidelines take a blunt, no-holds-barred approach, alerting his students to his expectations and explaining why he expects so much of them. The tone of these written guidelines is balanced by Todd's twice-daily availability to his students.
- Kathy Licht, Indiana University Purdue University Indianapolis. (Microsoft Word 28kB Dec1 05)
 Kathy's guidelines explain what her students can expect from her, and what she expects from them in return, particularly in relation to time and lab equipment.

Faculty guidelines for undergraduate students, from

- Sarah Carmichael, Appalachian State University. (Acrobat (PDF) 105kB Jun26 09)

 Sarah's guidelines address time management, her open door policy, the care and use of equipment, and the importance of keeping detailed field and lab notes. She also includes an undergraduate research contract that specifies her policies for intellectual property and authorship.
- <u>Lisa Gilbert, Williams College and Mystic Seaport.</u> (Microsoft Word 29kB May15 09) Lisa's guidelines are written specifically for undergraduate researchers. They set a

- welcoming tone, explain some of the conventions of scientific research, and let her students know what she expects of them and what they can expect from her.
- <u>Barb Tewksbury</u>, <u>Hamilton College</u>. (Microsoft Word 39kB Jun10 09)
 Barb's guidelines, for undergraduate students researchers, address collaborative relationships, managing a research project, lab and field issues, intellectual property, and ethics.

Guide to Research for Undergraduates

• WebGURU is an extensive online guide to the research process, written for undergraduate students. It is both a "how-to" guide and a description of what to expect, in terms of working on a research team, intellectual property, securing funding, lab safety, communicating results, and much more.

Books and articles

- Chemical & Engineering News (Volume 85, Number 6, pp. 39–41, February 5, 2007)
 asked several faculty members from around the world about <u>Building and Maintaining a</u>
 <u>Productive Lab.</u> Their responses are digested into a list of the top 10 tips. The article also includes a brief list of suggested further reading.
- The Committee on Science, Engineering, and Public Policy (CoSEPuP) of the National Research Council has written a thorough, peer-reviewed report called <u>Adviser, Teacher</u>, Role Model, Friend: On Being a Mentor to Students in Science and Engineering.
- What Mentors Do, by Lois J. Zachary, and part of Rick Reis' Tomorrow's Professor email list, looks at some of the ways in which mentors can facilitate student learning.
- The Council on Undergraduate Research (CUR) has multiple publications
 on <u>Undergraduate Research Practices</u>, which describe several successful models for
 undergraduate research.
- The Council on Undergraduate Research (CUR) also has the "How to" series. which features publications on mentoring undergraduate research.
- The high-leverage impact of one "non-traditional" student on an academic research program, an article from Rick Reis' "Tomorrow's Professor" Mailing List, describes the unexpected benefits mechanical engineering Professor Lisa Pruitt (UC-Berkeley) gained by accepting a physically disabled graduate student including the growth of her research program.

- <u>Kurdziel and Libarkin (JGE, 2002) article on mentoring undergraduate researchers</u> this link takes you to a description in the SERC Catalog, from which you can follow a link to download the full text of the article.
- The <u>Online Ethics Center</u> has a wealth of resources related to ethics in scientific research, including a page on <u>responsible authorship</u>.
- <u>Nature's Guide for Mentors</u> explores the characteristics of excellent mentoring, citing many examples.
- Advising the Dissertation Student Who Won't Finish, an article from the Chronicle of
 Higher Education, addresses the important issue of how best to serve students who run
 aground on the way to a PhD. In particular, the author asserts that stigmatizing the act
 of leaving a PhD program can interfere with students making the best choices for
 themselves.
- The Care and Maintenance of Your Adviser, by Hugh Kearns & Maria Gardiner, published in Nature (2011), has many helpful suggestions for students about how to get the advising they need. You could share it with your advisees, or even use it as a springboard for a group discussion with them.