Plan Your Work, Work Your Plan: Essential Career Competencies for Ph.D. Students and Post-docs
Date: February 15, 2012
Location: 1279 Anthony Hall
Speaker: Dr. Matt Helm, PhD Career Services, Graduate Student Wellness Coordinator, The Graduate School
Sponsoring Program: Graduate School
Core Competency Area: Professional Development – Understanding the Academy

Introduction
The focus of this workshop was to inform Ph.D. students and post-docs of the resources available to them in preparation for taking the next steps beyond graduate school out into the job market. Matt emphasized competencies that Ph.D. students should work to develop during their graduate experience and how to market those competencies to potential employers. The challenge for Ph.D. students trained in research institutions is that roughly 75% will work in places where other competencies are more important than research and roughly 50% of Ph.D. students working in academic institutions will be working at non-research institutions. Most Ph.D.s struggle with the cross-over to non-research institutions because they are trained to be researchers in research institutions.

Reflections
Hearing Matt’s introduction to the workshop and reflecting on his staggering statistics highlights the difference in mentoring between my masters advisor and my Ph.D. advisor. The two couldn’t be more different in many ways. One was solely focused on research and didn’t want me engage in any activities outside of the laboratory. I recall even having trouble presenting my research at a professional conference. The other encourages participating in multiple venues and outlets and advises his students to engage with others in any chance possible. To be fair, I am a different graduate student now than I was 7 years ago and I am more aware of what opportunities exist to me. However, I think it is truly the role of the advisor to decipher the strengths of the students and foster their growth. My persistence and initiative, for example, are the same now as then, but now I realize I can use these strengths, and use them to my advantage.

Which approach develops the right competencies? I think the overarching goal of Matt’s discussion was not that one of these two mentoring methods is “better” or develops “more” competencies but, rather, that they develop different competencies and it is the student’s responsibility to know which competencies he or she wishes to develop for his or her own professional development and career goals. Most jobs are outside of the research arena, but even those in the research arena, stress the following six competencies that are developed in graduate school:

Research, Scholarship, and Creative Activities
Research is probably the most straightforward of the essential career competencies for Ph.D.s to develop. Through the dissertation project a graduate student masters research methodologies, practices critical thinking, and conducts data analysis. But, Matt’s point was that these skills translate to other arenas and most students don’t realize that they are accumulating
these competencies. What employer wouldn’t want someone with problem-solving skills and clear writing?

**Balance and Resilience**
Balance and resilience is a tougher competency, for me, personally. While setting goals and achieving them is an obvious objective, the process to reach these goals may not have balance. Matt repeatedly emphasized that students who have a strong balance between work, personal, and family life finish quicker, are more efficient, and are healthier too. Academia breeds an unhealthy work culture and it is important to recognize that balance creates resilience and encourages flexibility to face and manage challenges. Again, very highly desirable traits for any employee.

**Communication**
Communication is a skill that takes practice. Because there are so many different forms of communication, it also takes an awareness of how to convey your message appropriately. Speaking to a group of scientists is very different than writing an outreach article for the general public or lecturing in an introductory science class. I am continually impressed with the ease great communicators can convey information. The trick is while they make it look so simple, it isn’t simple at all. This is a skill that is particularly important for education; otherwise, how can students learn?

**Collaboration**
Working well with others is a competency that is important in almost any employment situation. Yet, I can imagine a research project that only requires a student to conduct the analysis and write up the findings. While this may be an efficient process, it isn’t training more than a technician. Collaboration, if conducted appropriately, makes more productive research. Constructive criticism improves projects and interactions promote innovation. As science becomes more interdisciplinary, collaboration becomes even more important in funding research and training the next generation of interdisciplinary employees.

**Leadership**
Seeking out leadership opportunities and flourishing in those roles can be a difficult, but rewarding learning experience that can be applied beyond graduate school. Often, I hear faculty mention that they wished had opportunities similar to those available to current students and how valuable those opportunities can be for preparing for life beyond graduate school. Particularly at places like MSU, which have a broad network of resources for graduate students, the initiative must lie with the students to seek out these opportunities and hone these very marketable leadership skills for remaining within academia or venturing beyond it.

**Ethics and Integrity**
While ethics and integrity may seem like the obvious competency that all employers seek, it may be the most difficult to gauge. Personally, I think it’s important to apply professional standards of ethics and research integrity, be honest, truthful, and moral. Presenting competency in ethics and integrity is a different matter. Again, though, MSU provides workshops and other opportunities to ensure that graduate students reach competency. So, when a situation arises, appropriate action will be recognizable.
Conclusions
This seminar helped me recognize what professional development actually is and how certain activities that I already engage in help develop marketable competencies. In other areas, I need more exposure but now I am informed and equipped to pursue opportunities in those areas. Professional development can be a daunting term, but striving for self improvement is always a good thing. Matt defined adaptation as “managing chaos through rapid improvisation.” I like that and think it is particularly applicable to graduate school. Moving beyond graduate school will just require packaging that “chaos” into the marketable competencies that they are.