Developing a Campus Culture of Graduate Student & Post-doc Professional Development

-Reflection Before the Workshop-

- What professional development programs does your institution provide for graduate students and postdocs?
- •Who are your on- and off-campus partners for graduate student and post-doc professional development programs?

•Why do you connect with these partners?





Designing Effective Career Programs for Graduate Students and Post-docs: A Campus-Wide Approach to Professional Development

Council of Graduate Schools Annual Meeting December 2010, Washington, D.C.

Judith Stoddart, Ph.D., Asst. Dean, Michigan State University, The Graduate School, <u>stoddart@grd.msu.edu</u>

Henry Campa, III, Ph.D., Asst. Dean, Michigan State University, The Graduate School, <u>campa@msu.edu</u>





Program Objectives

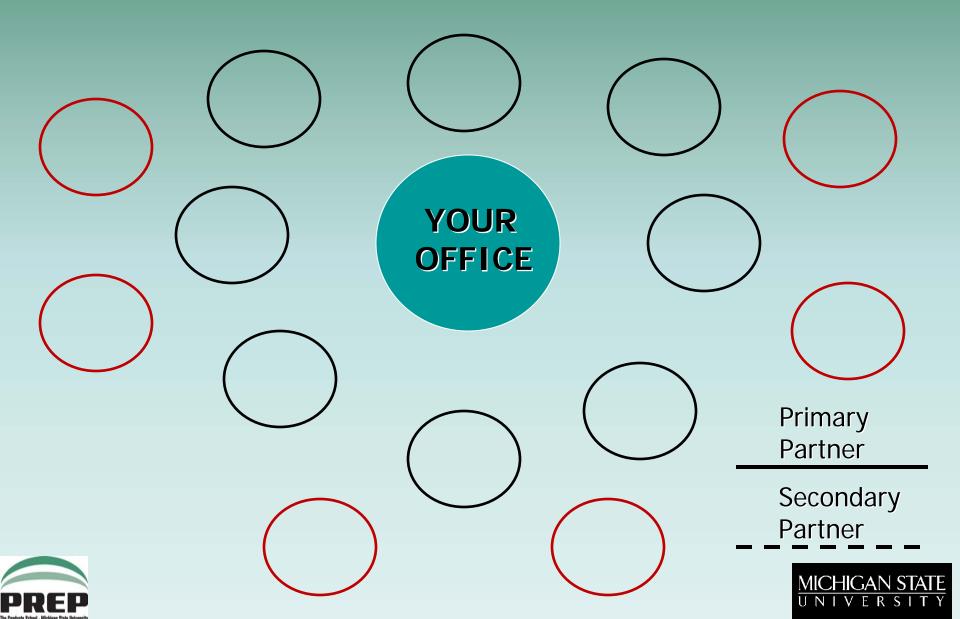
•Describe the fundamentals of building campus partnerships, how to create coherent programming, and use research-based methods for measuring outcomes.

•Develop goals and measurable objectives for professional development programs at your institutions.



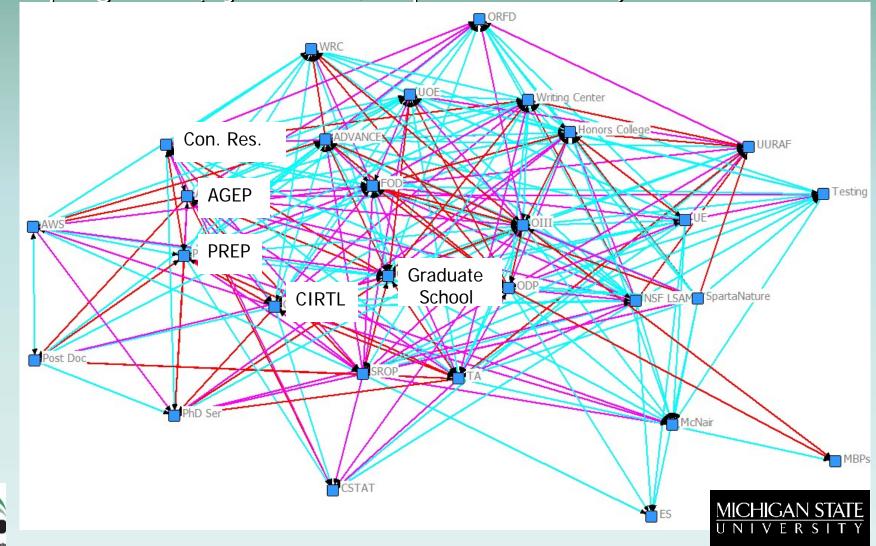


You and Your Network-Who are your partners?

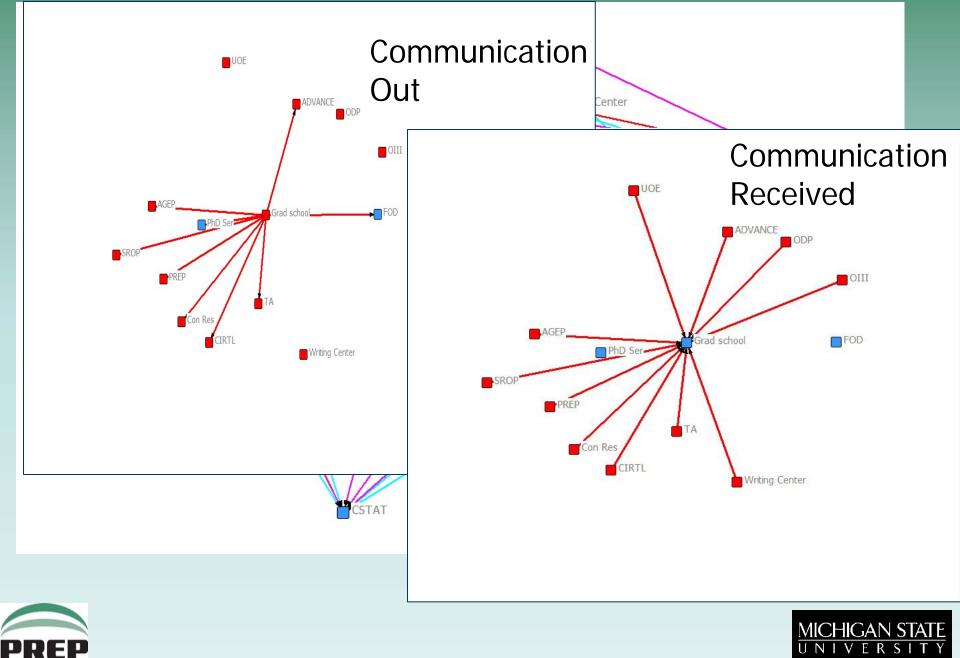


Program Integration Networks

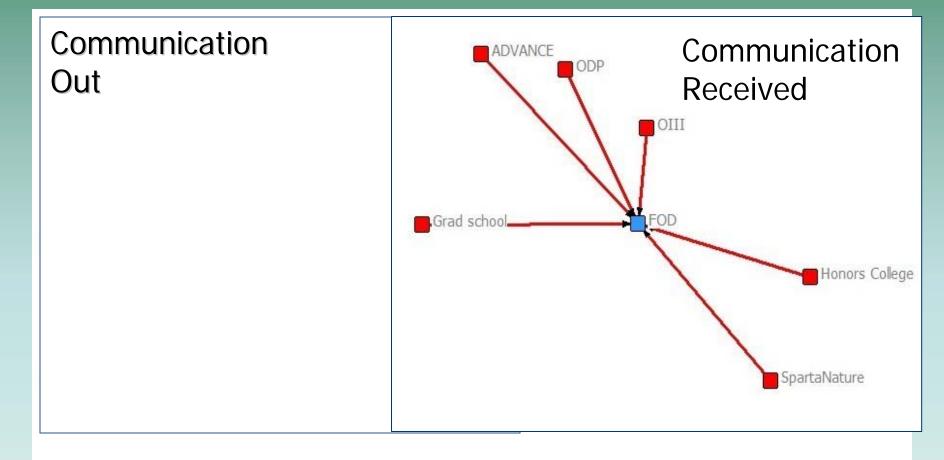
The integration network is dense: Program representatives are communicating regularly about professional development with other programs (Ryan et al., unpublished data)



The Graduate School-Communications



Faculty and Organizational Development-Communications







Michigan State University Graduate School Team and Partners

K. Klomparens, Dean GS; Plant Biology

GS Evaluation Team

- J. Stoddart, Asst. Dean GS; English
- R. Campa, Asst. Dean GS; Wildlife Ecology
- M. Helm, Career Services; GS
- T. Nunez, Assoc. Dean GS; Neuroscience
- J. Brockman, CR Coordinator GS; Labor and Industrial Relations
- K. Johnston, Director, TAP
- J. Jackson, Assoc. Dean GS; Microbiology







Program Goal and Objectives

Goal: The overarching end state or desired outcome

Objective: A specific, quantifiable statement of program achievement

- SMART: specific, measurable, attainable, realistic, tangible
- Cognitive, Behavioral, Affective
 - (Knowledge, Skills, and Attitudes)





Program Goal and Objectives Partnerships at Your Institution

*Develop a goal for building partnerships at your institution for professional development programs.





PREP

MSU Career and Professional Development Programs (<u>P</u>lanning, <u>R</u>esilience, <u>Engagement</u>, <u>P</u>rofessionalism)

Goals

- Broaden awareness of professional expectations in graduate education
- Prepare students to plan and manage their own careers
- Promote graduate student retention and completion
- Provide students with a competitive edge in securing professional positions







Focus Goal for 2009-2010

Prepare students to plan and manage their own careers:

Develop students' transferable skills across a range of programs

Objectives

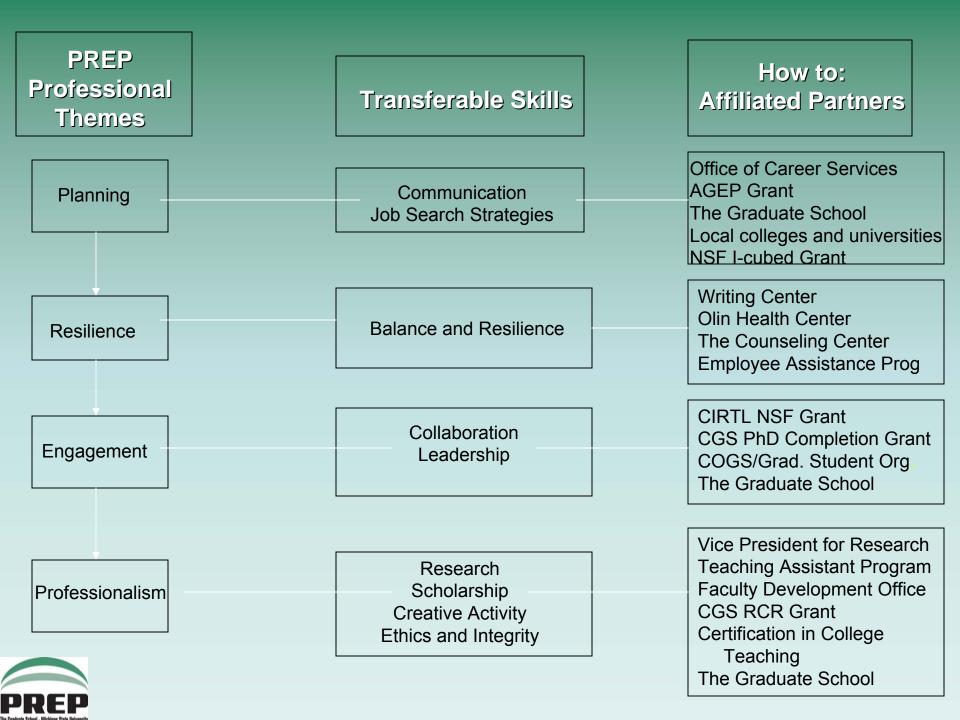
- Facilitators-Describe transferable skills using common language across programs
- Students-Acquire and explain the applications of transferable skills presented in workshops
- Students-Develop strategies for implementing skills in numerous contexts after workshops

Measures

- Content analysis of curriculum
- Common questions for pre- and post-workshop surveys
- Follow-up e-mail survey about skill application









Designed for graduate stu job process from locating

and mastering the in http://arad.msu.edu/prep

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Student Services Buildin

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Nov. 10

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Positions



2010-11 PREP Workshop Series: Leadership

A Workshop Series Sponsored by The Graduate School, Ph.D. Career Services, and Teaching Assistant Programs

Designed for graduate students and post-docs, these workshops focus on understanding how leadership skills can be developed and employed in the classroom, the lab, the department, and the institution. For full descriptions and registration information, go to <u>http://grad.msu.edu/prep/workshops.aspx</u> All workshops are free, but pre-registration is required.

Developing Communication and Conflict Management Skills to Save Time and Enhance Productivity

Friday, September 17, 2010 Student Services Building, Room 6 9 a.m.-2:30 p.m.

Learn effective negotiation and communication strategies to resolve conflicts and also to prevent them from occurring, Presenters: Dr. Tony Nunez, The Graduate School; Dr. Janet Lillie, Department of Communication

Developing Your Leadership Potential for Career and Life Success

Monday, Nov. 15, 2010 5:00-7:00 p.m.

International Center, Room 115

In the face of rapidly changing structures in higher education, corporations, agencies, and other professional organizations, employers are actively seeking advanced degree holders with strong, demonstrable leadership skills. This workshop will expose graduate students to a variety of leadership models and present to attendees practical applications of leadership. Participants will discover how they can act as leaders in all areas of their lives (their departments, on campus, in their communities, and in the world) without necessarily being in traditional leadership positions of power and authority. As part of this workshop, graduate students will begin developing their own unique leadership development plan and begin identifying opportunities for enhancing and building leadership skills. Presenter: Dr. Matt Helm, Director, Ph.D. Career Services

Persons with disabilities should contact the Graduate School at 517.353.4738 to request accommodations no later than two weeks prior to the session date. Requests received after this date will be mat when possible. 11/1/10 hop Series: gement

he Graduate School, Assistant Programs

kshops focus on project management re projects. For full descriptions and <u>p/workshops.aspx</u> All workshops are

Time!"

International Center, Room 115

s (that would be the one on the topic e sure you know much about.). It Can we, as Therese Huston artfully can we take what we D0 know and articipants will learn strategies for teaching efficiently. The workshop assessing teaching "on time." Fulfills 'Creating Learning Environments or evin Johnston, Director, Teaching

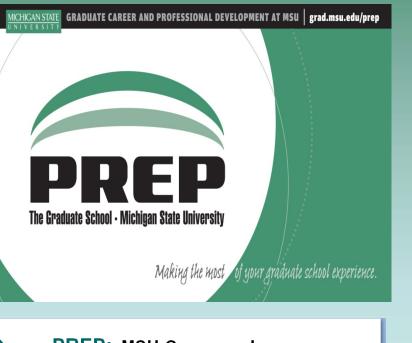
Successful Project Management

Student Services Building, Room 6

for prevention and resolution of ve workshop will explore how an poth conflict prevention, by setting inflicts develop. The workshop also ng conflicts and setting expectations ool; Dr. Janet Lillie, Department of

quest accommodations no later than two weeks prior 8/27/10

Common PREP Slides For Partners



PREP SKILLS

- PLANNING for career and professional goals-entry to exit
- RESILIENCE and tenacity through multiple career and life stages
- ENGAGEMENT in decision-making and skill development
- **PROFESSIONALISM** in research, teaching, and service

PREP: MSU Career and Professional Development Model

• Stages of professional development

 the process of socialization and integration into a professional context, and the continued process of learning and growth throughout a career

o Development of transferable skills

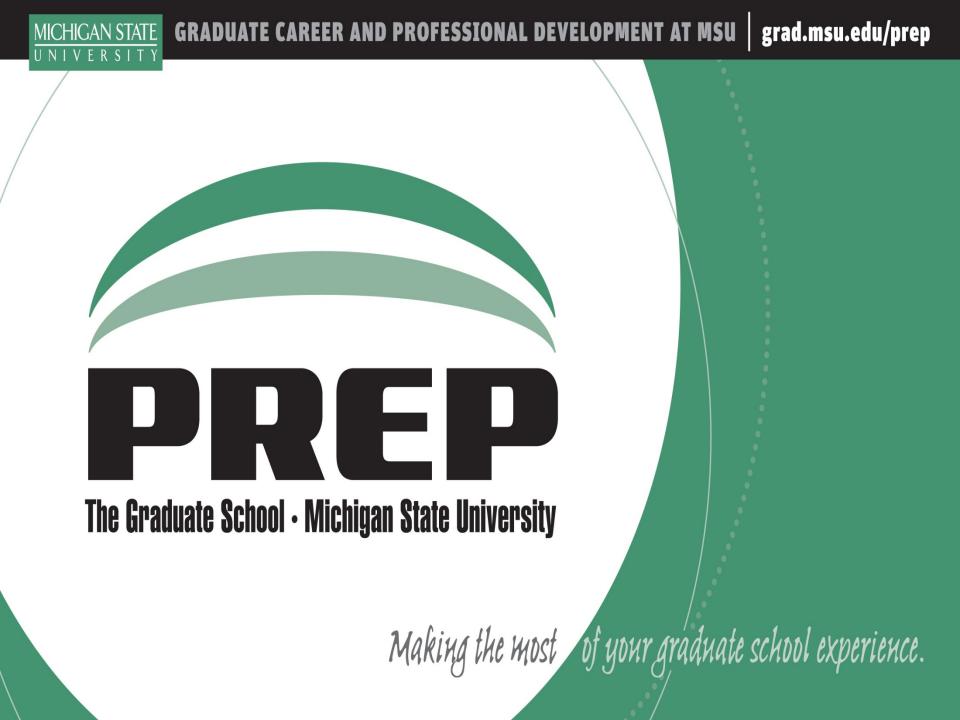
PREL

 practical abilities that are fundamental to success in graduate school and in a range of professional contexts, from academia to industry, corporations, agencies and government

Professional Development Matrix

	PLANNING		PROFESSIONALISM
EARLY STAGE			
MID STAGE			
LATE STAGE			

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What the Research Tells Us: The Scholarship of PREP

- ~ 75% of Ph.D.s will work in environments where other competencies are more important than research.
- 50% of doctoral recipients will find employment as tenure track faculty in a college or university. Most will be in a non-research institution.
- Students complete doctoral degrees without understanding the missions, faculty roles and rewards, and academic culture of various institutions
- Studies of doctoral education and early career faculty show that students need information about career choices, teaching, mentoring, and more congruence between doctoral education and the realities of faculty life
- Ph.D.s struggle to crossover to industry, government, and non-profit sectors.
- At MSU in 2003, 64% (n=304) of Ph.D. students were very-fairly interested in teaching positions after graduation





PREP

Professional Development

The process of socialization and integration into a professional context, and the continued process of learning and growth throughout a career

Transferable Skills

Practical abilities that are fundamental to success in graduate school and in a range of professional contexts, from academia to industry, corporations, agencies, and government





Important Transferable Skills Research, Scholarship, and Creative Activities

Leadership

Ethics and Integrity

Collaboration

Communication

Balance and Resilience





Becoming Your Own Manager

5 strategies for a productive graduate career

- 1. Take responsibility and ownership for your success
- 2. Know available resources
- 3. Think ahead
- 4. Have a plan
- 5. Identify (and deal with) obstacles





Graduate student tasks & responsibilities?





PLANNING for career and professional goals-entry to exit

Planning during graduate school helps you identify and achieve your professional and career goals.





RESILIENCE and tenacity through multiple career and life stages

Resilience: the ability to adapt effectively to adversity or change

Wellness: The integration and balance of mental, physical, emotional, and spiritual well-being through taking responsibility for one's own health





ENGAGEMENT in decision-making and skill development

Engagement in your discipline and in your personal and professional development is critical for enhancing transferable skills, expanding professional networks, and creating partnerships and collaborations.







PROFESSIONALISM in research, teaching, and service

Professionalism: how you reflect on what you do in your discipline and the types of attitudes, standards, and behaviors you demonstrate throughout your career.





Three Stage Model of Graduate Student Development*

1. Early Stage

2. Mid Stage

3.Late Stage

This model responds to some of the commonly encountered challenges facing graduate students.

*Adapted from materials MIT model

* Adapted from Stewart, Donald W. (1995). Developmental Considerations in Counselling Graduate Students. Guidance & Counseling, 10, 3, 21-24.





PROFESSIONAL THEMES 🔻

	PLANNING	RESILIENCE	ENGAGEMENT	PROFESSIONALISM
EARLY Stage	 Financial planning Setting expectations Identifying career goals 	 Developing support systems Creating a wellness plan 	 Professional networking Choosing an advisor Identifying transferable skills 	Developing teaching skillsResearch ethics training
MID Stage	 Preparing for comprehensive exams Preparing for the job search or postdoc Developing professional standards for integrity in research 	 Conflict resolution Stress management 	 Funding your research Working with committees Acquiring transferable skills 	 Project planning Creating your teaching portfolio
LATE Stage	 Writing the dissertation Conducting the job search Finding a postdoc position 	 Managing the research program Sustaining support networks 	 Choosing the academic path Choosing the nonacademic path Writing a postdoc grant 	 Negotiating the job search Translating transferable skills for the next career stage

Professional Development Matrix

	PLANNING	Resilience	ENGAGEMENT	PROFESSIONALISM
EARLY STAGE				
MID STAGE				
LATE STAGE				





Completed by a finishing STEM Ph.D. Student Professional Development Matrix

	PLANNING	Resilience	ENGAGEMENT	PROFESSIONALISM
EARLY STAGE	 Preliminary research and writing research proposal Developing research skills 	?	Developing relationships with mentorsNetworking	 Research ethics training Teaching skills development Developing professional speaking and writing skills
MID STAGE	 Project time & resource mgt. skills; Skills for academic positions Understand expectations for prelims and comps 	?	 Working w/ collaborators in- and out of discipline Attend/present at confer. Publish research Participation/leadership in dept/college I committees 	 Teaching portfolio & philosophy development Further teaching skill development through courses and research projects
LATE STAGE	 Dissertation writing Find postdoc Preparing written materials for apps. Coordinate spouse's career 	 Maintaining mentor and network contact relationships Time management Stress management 	Publishing researchGrantsmanship skills	 Negotiation Interviewing skills Coordination of spouse's career





Program Goal and Objectives

*Develop a learning goal for the professional development programs at your institution.





Developing Measurable Objectives

Select one of your goals and develop a <u>cognitive</u> and <u>behavioral</u> <u>objective</u> that can be used to assess whether you have met that goal.





Levels of Program Evaluation

- Participation
- Satisfaction
- Learning
- Application
- Overall Impact

Each can be measured in a variety of waysqualitative/quantitative

Connolly, M. and Millar, S. (2006) Using workshops to improve instruction in STEM courses. Metropolitan Universities, 17, 53-65.





PREP PROGRAMS EVALUATION PROCESS

Ouestions to

Use information to alter future programs Focus group interviews with workshop participants

> Use data from surveys to develop focus group protocol

Post-workshop survey

Workshop

Pre-workshop

survey





Mastering the Academic Interview October, 2010

Goal

Create awareness of the skills needed to successfully prepare for an academic interview and secure a position.

Student learning objectives

- Effectively describe your area of research, outside of your prepared job talk, to diverse audiences in multiple venues
- Summarize your career to potential colleagues in a short period of time who have little familiarity with your research and teaching areas
- Describe strategies of how to set yourself apart in an academic interview and get your audience interested in you to secure the position

Measures

- Pre- and post-workshop questionnaires on cognitive outcomes
- Post-workshop follow up e-mail survey on behavioral outcomes





Mastering the Academic Interview – October, 2010 What did participants say? What skills did they learn?

"I learned how to describe my research in 2 or 3 sentences for people outside my discipline."

"I learned about questions I would never expect to be asked."

"I will be investing far more time in preparing my 'scripts'."

"I will practice the interview process with colleagues."

"The vignettes were eye-opening and also the practice session. They helped me evaluate myself."

"Reflect on questions that might arise and prepare for all odds. Discuss this with my advisor and junior faculty."





Designing Programs The Backward Design

Start with goals—How do you know you are meeting them?





Modified from Wiggins and McTighe 1998 by T. Long





Focus goal for 2009-2013

Promote graduate student retention and completion

Objectives

- Track relationships between participation in professional development workshops and completion
- Track relationships between participation in workshops and time to degree
- Track relationships between participation in workshops and placement outcomes
- Develop patterns in participation to see impact of clusters of experiences

Measures

- New registration database records participation and demographics
- Network analysis of graduate student outcomes (following MSU NRC faculty study model)
- Influential variables impacting career trajectories





Essential Transferable Skills-What do students need? What do employers want?

(Q) introduction research, scholarship & creative activities

 Approaching your field creatively in order to expand or explore new avenues in research, scholarship, or doctoral program; they distinguish the Ph.D.

- Defining a problem, and identifying and effectively using relevant resources to address it
- Practicing independent, critical thinking, problemdissertation does more than demonstrate specialized expertises it also shows that its author acquired skills
 - solving, data analysis and synthesis Managing a project to completion, including defining
 - the parameters, prioritizing a range of tasks, and effectively partnering with researchers and staff
 - Writing clearly, developing your original ideas within an existing community of scholarship, and
 - techniques, and recognizing how they are used both detending those ideas to peers Knowing how to synthesize the work of others and
 Sustaining passion for your area of expertise, and
 - integrate it with your own, giving credit where credit

Nantyn Frys (Ph.D. Philosophy) received the BA with honors in philosophy from Sanford Innerson in Lange, and her declarat darges in Philosophy at Comeil orden note university in 1995, end name declare unigner on margine in the sounder University in 1995. She is a University Dissinguizhed Professor in Philosophy at sinne skynt spor, ske is a university soanligennee moesan timmisaanty w MSU Before cannig ta MSU in 1476, die tauget in the Philosophy Department active constraints of the second s All the source and the reasoning and any most any mission and an analysis of the source in the source of the sourc Laddant som mar und samen av Associate Land in a disease at essays in laminat lage of Arts and Lanters D.C Payes the Public of Nos tooks of essays in laminat ngana wata wang aliku ngana ang wana la ma akana a ma akana a kawa a mananan Maayi The Politics of Reality (1983) and Welya Wirgh Usbal, asweli minumero a New yoline rule rule in new else by an angle in the field. Her research thoses on

"A cademics," notes Dr. Frye, "are abrays engaged in some kind of creative reconstruction of information. For instance, a literature major is always inconservation of an unmanner, res manages, a metanate maps a among thinking as she or he reads, but what about this? or 'W hat if we see thinking as set or to reach, but was some use or You are a set or the set of the same descent of the same chills hanke vacea trout a outerent perspector er: or roo care una approacation this topic from this poericos before." For Dr. Feye, creative engagement

and perspective taking are not just productive babils of mining they acand perspective county are morphic personance and are any are free research practices. Dr. Frye has used these approaches to restape the field of philosophy, interrogating categories and terminology from un un so panoopay, anteriognag untegries ana venance ogy mom unespected poiet ofvier. Her foundational work in feminist philosopty starts from what we assume we know about categories of everyday tite. and employs position taking to reformulate those assumptions. o employs position taking to renormanian usare assumptions. Academic research, Dr. Frye explains, is about pushing yourself Academic research, M. 1970 explaines a most parameter growth beyond what is familiar, and coming up with creative solutions to adare constantly changing fields. Because of our training "the observed, "academics tend to enjoy those structure when our way of thin king

academics tenu to objey tasse attantons when out we or unanang about something is called into question. So, we respond to problems with excitenated as cauch new question, not we respond to possion with excitenate, rather than discondist." Reacting constructively who exceeded, taking tools an eaconory, where a generative every to questioning and reclarks can lead to unamicipated directions in the second of the second se ston to argue for "the productivity and merit of another approach," and communicate that passion to colleagues and students.

Apply for funding

workswithpeers

iona

 Engage in research ethics training · Identify standards in your discipline Apply for necessary approvals and tor presenting your work.

human or animal subject permits Create clear evaluation standards for working teams

Assist in memoring undergraduate research in your field

Share research findings or creative

PREP Sp 'tlight

ME

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neties to buildy our own shine

· Create a network of professional methods for your objectives mantors in your program Identify a professional network · Identity resources and potential OUTSIde MSU Learn how research or creative publication publics warks are peer-reviewed Work with mankers to understand and incorporate teedback

dissertation or research results

Know deadlines for submitting your

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AUTHORS

Matt Heim, Ph.D. | Lau

We are grateful to many geol

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agreed to be interviewed: Dr. 1

intellectually stimulating discus

Mr. Kevin Johnston, and Mr. Ma

LANUUT & DESIGNE Sharp Designs,

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that are highly valued in academia, government and

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successfully carrying to completion a research or

Mastering research methodologies and creative

creative project requires:

isdue

doctoral research, there are many opportunifors for you to develop this competency. "One of the ways that I feel has been underappreciated is the simple concept of understanding what you are doing. For instance, ity ou have been given a project, start by becoming very familiar with the interature surrounding that specific topic, but also branch cut."In other ords, do not be alraid to expandy our re-

theing a researcher conside the academy involves engaging the passion and knowledge you have developed in your area of expertar and applying them to new problems. For Dr.

or methodologies she already knew could be used in very daterent areas of research. 'Applicability' says Dr. Orr, "is a key differentiation in industry, because in industry everything OLOW IS LOOK TO THE ACTUALITY OF THE

search to other disciplines when necessary.As

Nailah Op, making the transition from working in an academic tab to using her science at Dow Chemical meant decovering how techniques

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for you."

things may this particular set of techniques This learning be used for?" You are asking very important questions about the applications of

Maintairing a high level of curiosity about

other daciplines in the university is another way of making connections between your spe-



