



Strategies to Use Work-Study Research Program to Enhance Professional Development of Transferable Skills

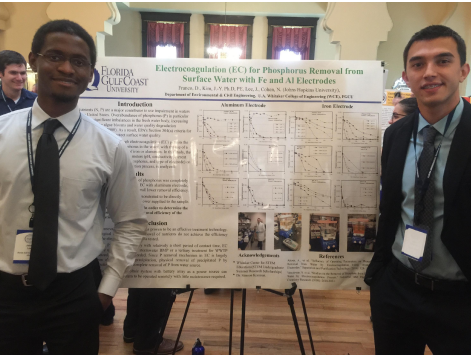
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**11th Annual Florida Statewide Symposium: Best Practices in Undergraduate Research
FAU, Boca Raton, FL
October 19 and 20th, 2018**



Presentation Sketch

- Value of Undergraduate Research
- Relationship of Undergraduate Research to transferable skills
- Introduction of the WiSER program
- Formal inclusion of Professional Development in the WiSER program
- Moving Forward



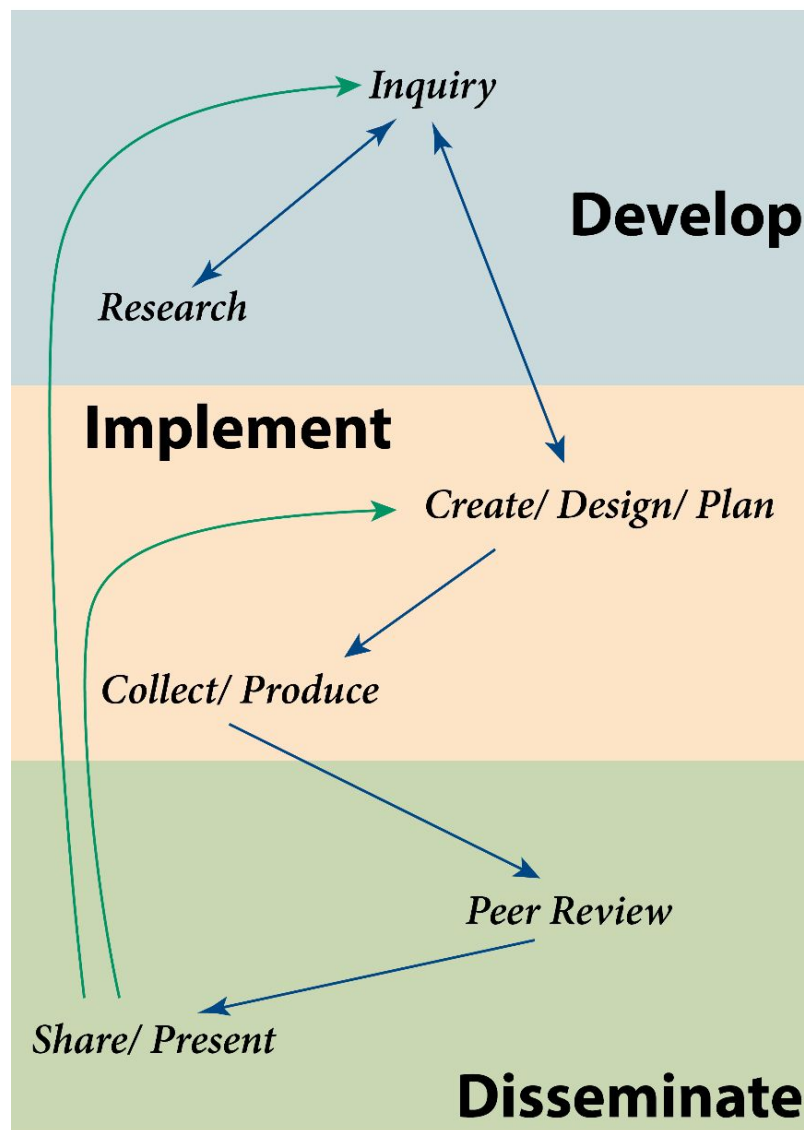
Research Contributes to Student Success

- Research underpins much of what graduate programs and employers expect from applicants. Our experience with students has used research as the foundation to, and necessary precursor of, projects in which the outcome may, but does not necessarily have to be, a poster or paper.
- *Research skills: discipline knowledge, interpersonal skills, methodology development, analytical skills for the discipline*
- *Professional development: Transfer of these research skills into life-long learning, work practice, and beyond.*

Scaffolding Scholarly Elements



- ✓ Scholarly elements framework help us to emphasize the necessary research skills.
- ✓ Scholarly elements are developed by the QEP Leadership Team.
- ✓ Scholarly elements are disseminated to programs and presented at workshops/seminars at FGCU and externally.



Research

Develop an understanding or appreciate the history of a problem, question, or purpose; uncover others that have identified or addressed the problem, question, or purpose in the past, and understand their findings.

Inquiry

Formulate a question, recognize a problem, or develop a purpose that the scholarship will address.

Create/ Design/ Plan

Develop a plan, proposal, or design for to answer the question, solve the problem, or accomplish the purpose; establish a methodology, technique, or approach.

Collect/ Produce

Conduct the study, experiment, investigation, analysis, or produce.

Peer Review

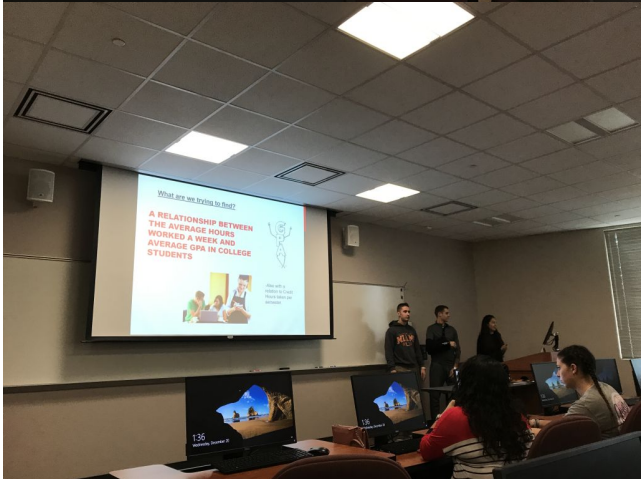
Subject the presentation, communication, or creative work to outside review and critique.

Share/ Present

Communicate the scholarship in writing or through oral presentation; perform or exhibit the creative piece.

Faculty- led Research typical steps used in research based on scholarly elements

- ✓ **Inquiry**: Meet with Faculty mentor to discuss student's idea for research, or Faculty's research scope, grant outline, response to research call
- ✓ **Research**: Literature review. Meetings with Industry, experts, e.g.
- ✓ **Creation/Design**: Survey design, data collection, interviews, survey dissemination, design of experiments, field trips, data recording
- ✓ **Implementation, Analysis**: Data analysis, Hypothesis testing, statistical analysis.
- ✓ **Implementation, Synthesis**: Research results, conclusion(s), future research prospects
- ✓ **Writing, Presentation**: Preparation of conference abstract, poster, proceeding paper presentations and draft papers at conventions, conferences, symposiums
- ✓ **Journal paper publications**: Student self and/or faculty-student collaborative writing at University journals (Aquila), and professional journals.





Discussion

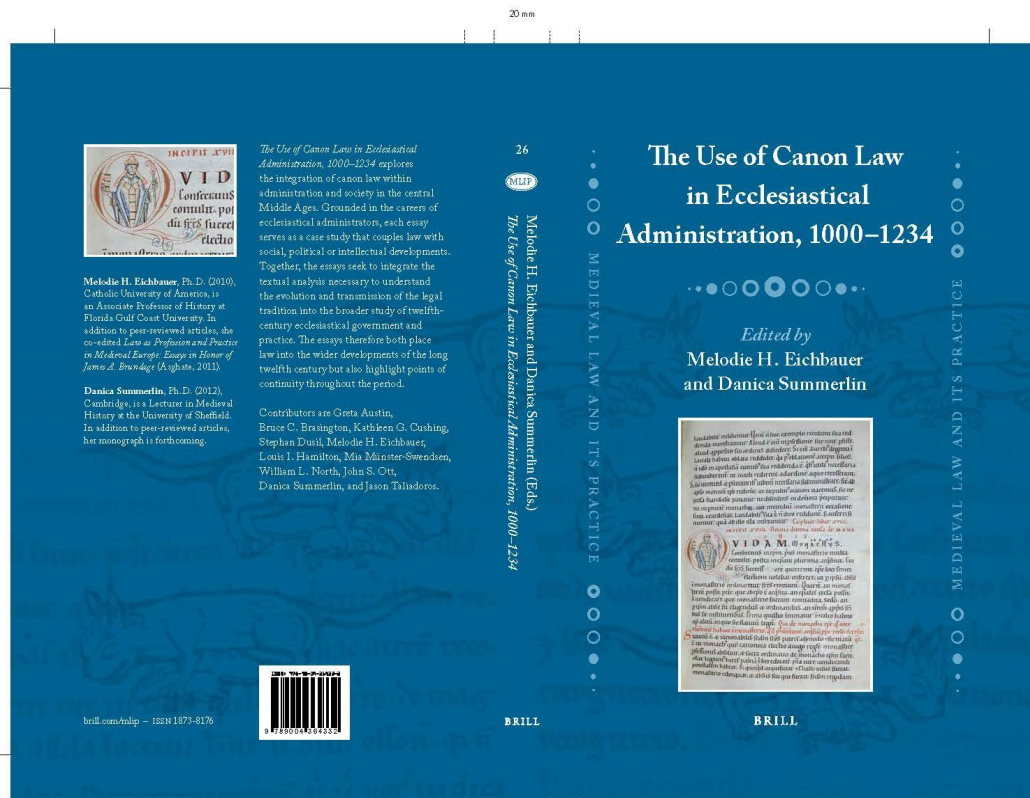


- **What are your experiences engaging students in research/scholarship within your discipline?
Have you noticed differences between disciplines?**

(Please state your discipline!)



Enhancing student research skills: Research as Professionalization

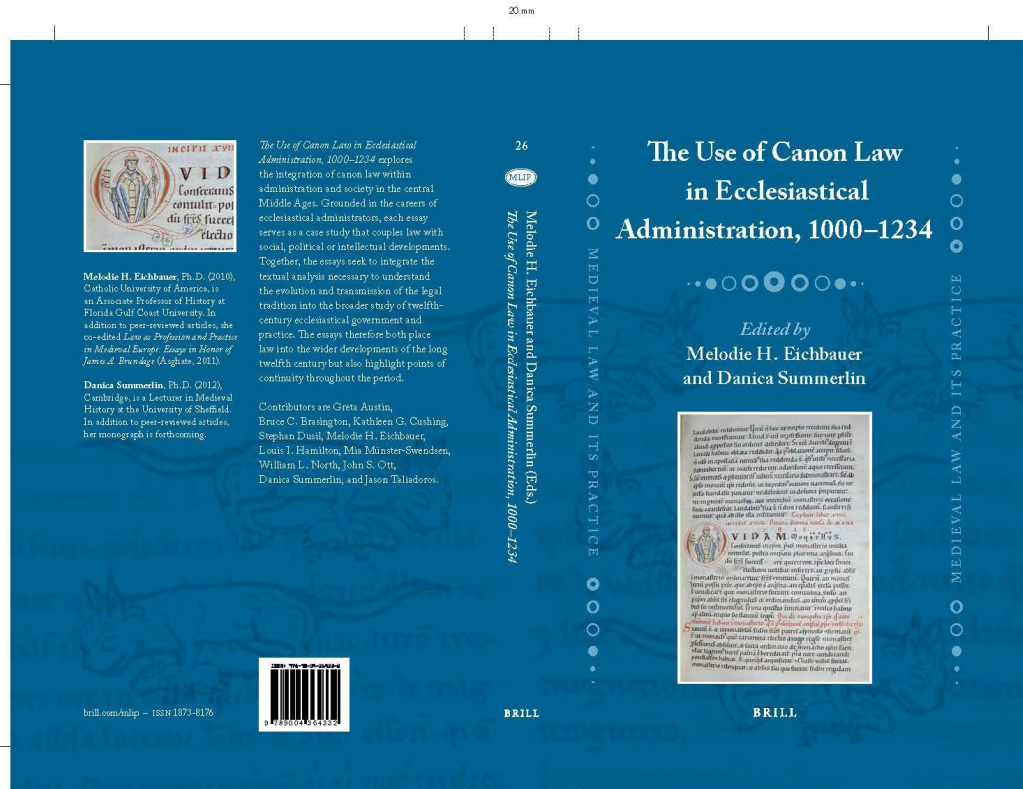


- Learning the process that a research project goes through is a tremendous help to students as they think about their own research.
- Being involved in the pitfalls of a projects helps them to recognize and sidestep those pitfalls as they work through their own projects.



Research as Professionalization

- Project management
- Professional editing
 - Content editing: when is it unclear
 - Copy-editing: clarification but not impose
- Footnote and Bibliography formatting
- Indexing
- Ins-and-outs of using images for print





Research as Professionalization



- EUH 2021 Medieval European History, [Vikings trailer](#)
- Research needed to understand fact versus commercialization
- Helping students to think about how research can be transformed and used as a way to introduce students to a topic, but also how to help them navigate commercialization versus fact.



Research as Professionalization



- In addition to learning video production and editing, students have learned about using visual media as a teaching tool (whether in the classroom or the boardroom)
- EUH 2021 Medieval European History, [supplementary Crusades video](#)
- Podcasts are a way to bring students into the subject in an engaging and yet interesting way



Research as Professionalization



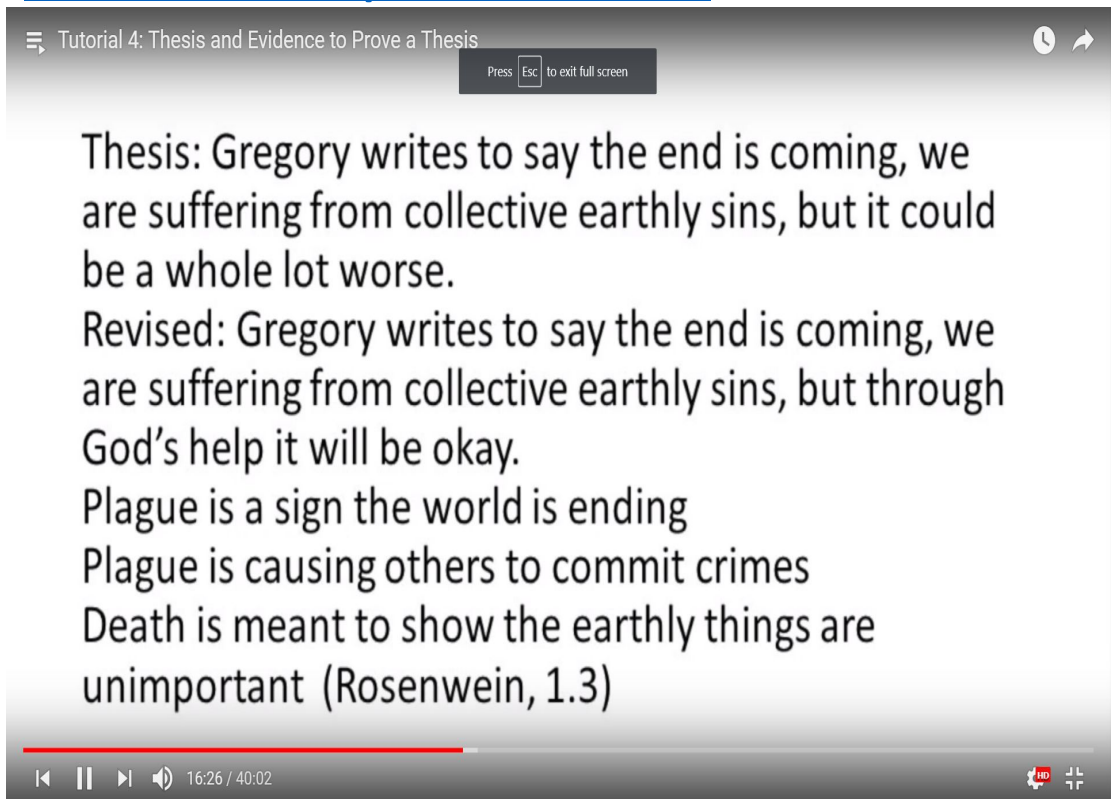
- [Break down of source video](#)
- 5 tutorial videos (almost 3hrs. total) in which students are describing the mental steps they go through in the research process
 - How they break down a source
 - Modelling a class discussion
 - Thesis and evidence to prove that thesis
 - Creating outlines
 - Q&A
- Students engaging other students



Research as Professionalization



Thesis and proof video





Discussion



- **In what ways can students engage in research and the research process ending with a final product that is not necessarily a paper or an article?**



Relationship Between Student Success and On-Campus Research Positions for Undergraduate Students

- Studies suggest that institutions can ***improve STEM persistence among underrepresented racial minorities*** by increasing the likelihood that those students will engage in key academic experiences: studying frequently with others, ***participating in undergraduate research***, and involvement in academic clubs or organizations. (Chang et al., 2014)
- Students reported ***gains in independence, intrinsic motivation to learn, and active participation in courses taken after [a] summer undergraduate research experience***. (Lopatto, 2007)



Motivation for Utilizing Work-Study Funding for Undergraduate Research Positions

- **By providing positions where students can engage in undergraduate research, we are allowing students more variety in work options, and options that may better align with their scholarly career path, more so than an office position would.**
- “The [federal] budget outline calls for reducing Federal Work-Study “significantly” and reforming it to direct funds to “undergraduate students who would benefit most.” It does not contain specific amounts for how much the program, which spends about \$1 billion annually on hundreds of thousands of student jobs, would be cut.”



Work-study in Scholarly Experiential Research { WiSER Eagles Program }

- Spring 2018
 - Piloted effort with **8 faculty research teams, 8 students**
- Fall 2018 – Spring 2019
 - Continuing the piloted effort with 30 faculty research teams
 - \$25,000 in the coming academic year for ~40 work-study positions (i.e., \$625 per student)
 - AY16-17: 265 work-study positions for FGCU
 - An *eighth* of Work-Study positions at FGCU engage the student in Undergraduate Research



Work-study in Scholarly Experiential Research { WiSER Eagles Program }

- The goal of this program is to help students with financial need develop research skills and interests.
- Research experiences develop transferable skills and can change the course of a student's academic and/or professional career.
- Students can be at any academic level, although we encourage selecting students that are earlier on in their college career.
- 9 hours/week of the students' time is spent working with the faculty on research
- 1 hour/week of their time is spent engaging in professional development activities



WiSER Group Meetings

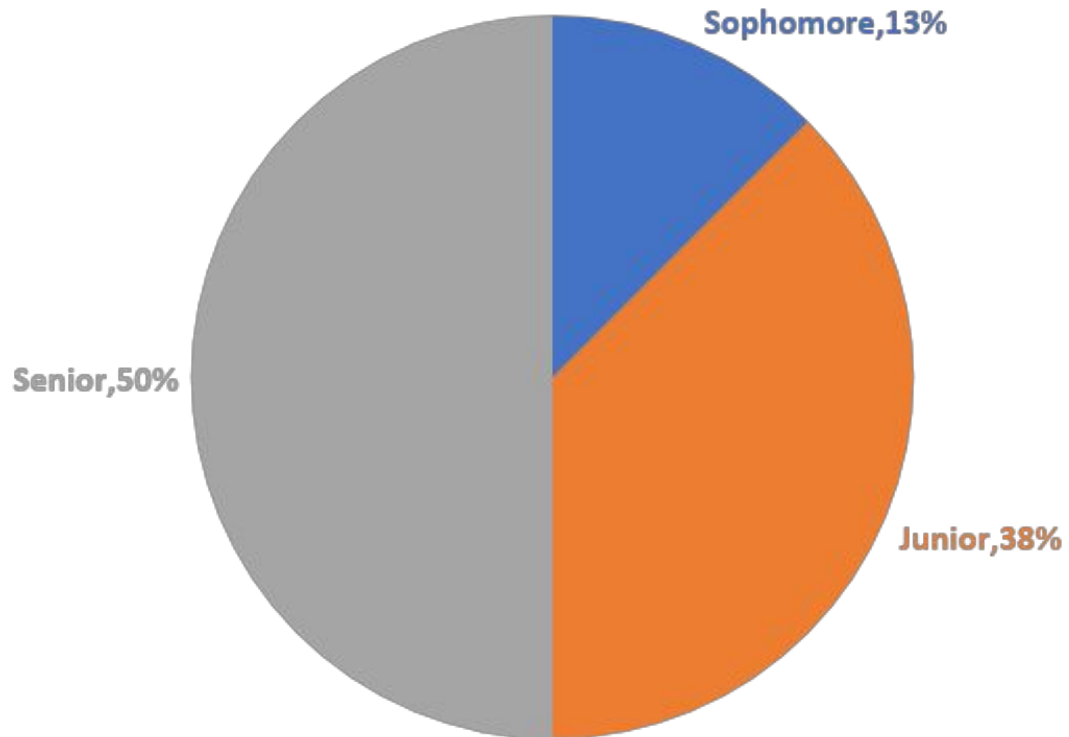
Professional Development Activities

WiSER Group Meetings are held biweekly for professional development activities and reflective discussions. Students can also utilize campus resources or take part in a scholarly events to complete the professional development component of the program.

- Go to the Writing Center twice – first time with no plan, second time with an idea of what you want the Writing tutor to look at / discuss
- Craft a Professional / Research Philosophy
 - Peer-editing and discussion
- Discuss your research with 3 different people, discern differences in group discussion
- Engage with a research librarian
- Share their research with peers of different disciplinary backgrounds
- Understanding CVs, Resumes, Cover Letters, Statements of Intent, and more!
- Recommendation Letters – how to ask for one & why
- Grant Writing – Tailoring Your Message
- Elevator Pitch
- Presenting Your Work Professionally
- Research Experience debriefing
- Explore graduate school opportunities and applications
- Engage in a community of scholars



Academic Year/Status for Participating Students Spring 2018



Majors of Participating Students Spring 2018

Forensic Studies

Integrated Studies

Biotechnology

Chemistry

English

Psychology

Accounting

Environmental Engineering

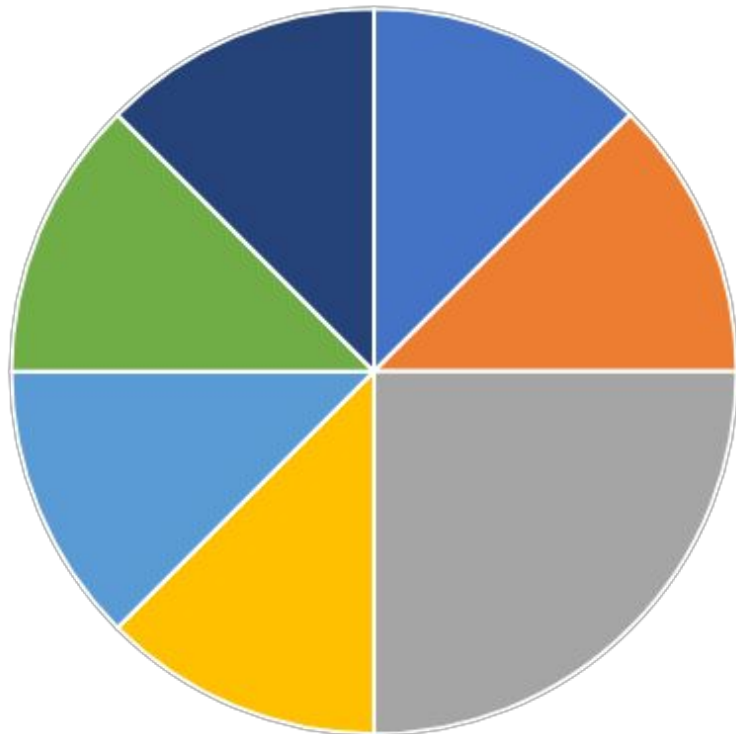


WiSER Eagles Program Faculty Selection Process

Faculty/staff advisory group (FGCUScholars Leadership Team) developed the application process. The application required faculty to:

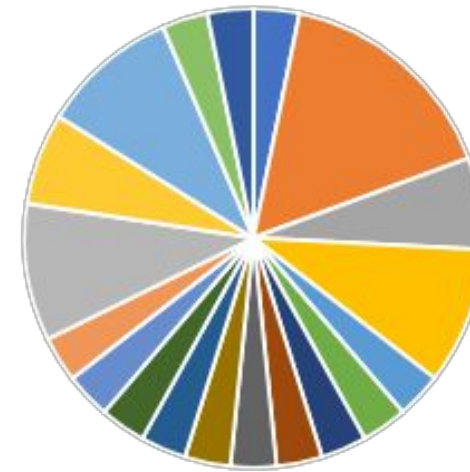
- Write short research proposal
- Describe expected benefits to the students
- Define scholarly outcomes
- Detail experience mentoring students from underserved student populations

Discipline for Participating Faculty Spring 2018



- Criminal Justice
- Philosophy
- Chemistry
- Language & Literature
- Business
- Engineering
- Education

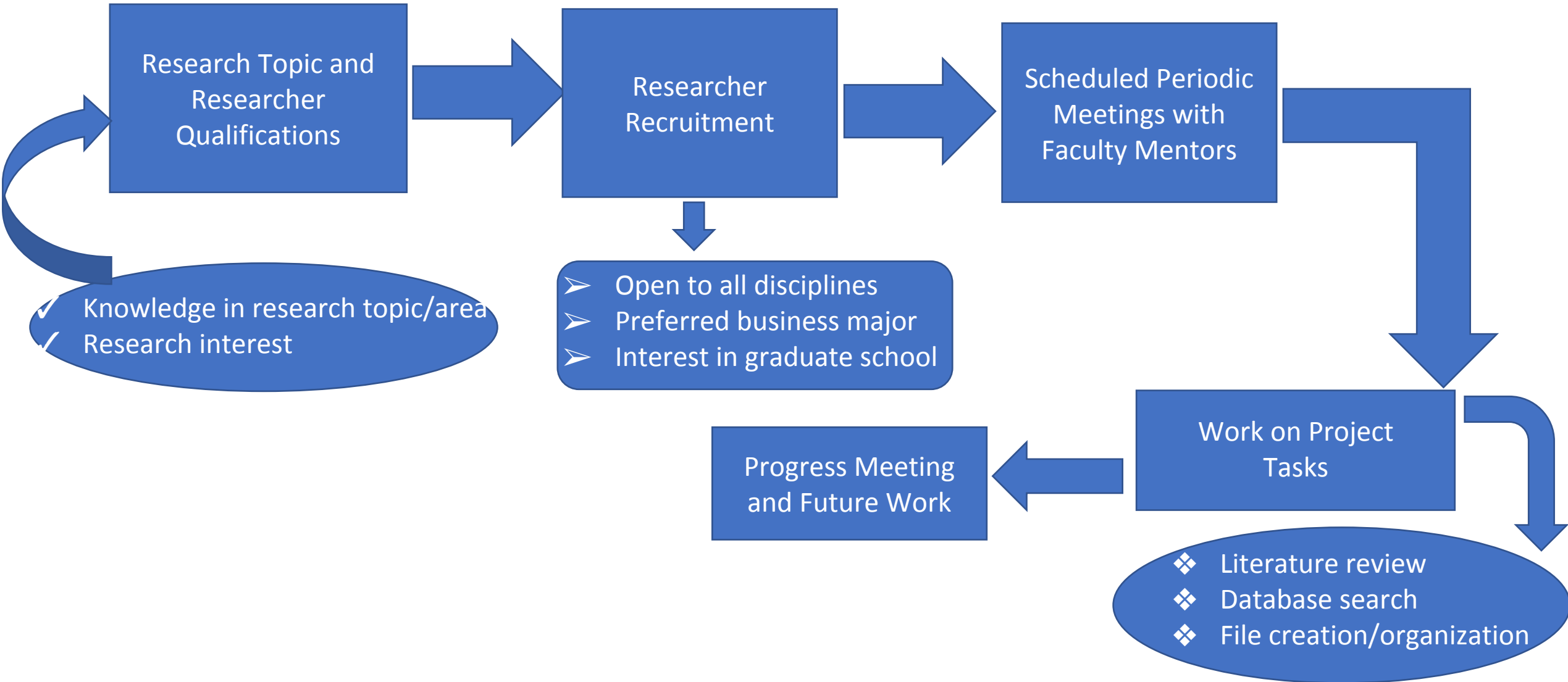
Discipline for Participating Faculty AY18-19



- Nursing
- Marine and Ecological Sciences
- Economics and Finance
- Biology
- The Department of Rehabilitation Sciences
- Music
- Resort and Hospitality Management
- Education
- Communication and Philosophy
- Integrated Studies
- Bioengineering
- Social Work
- Environmental and Civil Engineering



WiSER Eagle Program Faculty Experience





Discussion



- **What are your strategies for working with undergraduate students new to research?**
- **What are the challenges that you consistently see with your upperclassmen researchers?**



Research as Professionalization: Where are they now?

- Audiobook company
- Revs Institute in Naples (founded by Miles Collier who was associated with the Sports Car Club of America)
- E-learning at FSW
- Graduate school whether in Library Science, Political Science, or History
- Fulbright Scholar



Discussion



- **What anecdotes do you have of students conducting research who used those skills in an unexpected way?**





Group Discussion



- **What are some of the traditional and transferable skills that engagement in undergraduate research gives students?**
- **How can we help students think about and better translate the skills that go into research in a manner in which they can articulate when applying for jobs?**
- **What activities do you have on your campus that contributes to the professionalization students?**

THANK YOU



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