



# Institutionalizing Undergraduate Research at NSU

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# Undergraduate Research at NSU



- Between Fall 2005 and Spring 2008, 59% of faculty mentored at least one undergraduate researcher.
- Most mentoring occurs on an *ad hoc* basis.
- The QEP aims to institutionalize these efforts and make research experiences available to all students in majors not requiring an internship, externship, or creative performance or project.

# What is undergraduate research?

- To foster research opportunities in all academic programs, we define undergraduate research broadly as "research or creative activities which could be considered scholarship as defined by professionals in the discipline."
- In addition, we recognize the importance of both the **discovery or creation of new knowledge** and the **transmission of that knowledge to others**.
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# Typical Requirements

- Style of the discipline
  - Structure
  - Citation style
- Review of the scholarly literature
  - Minimum number of sources
  - Minimum page length
- Research question “new to the student”
- May sacrifice aspects of Master’s or Doctoral works
  - Negative results
  - Replication
  - Sample sizes
  - Number of variables

# Models of Undergraduate Research



- Individual and group projects
- Research initiated and designed by students as well as projects connected to ongoing faculty research
- Experimental and theoretical projects
- Creative works, case studies, evidence-based practice, fieldwork, and archival research
- Research as part of a traditional course and as independent study
- Ties to local agencies and industry
- Non-credit and for credit options



# Student Needs

- Assistance defining a research topic
- Guidance in experimental design and techniques
- "Ownership" of the project and its results
- Bridge between the content of introductory-level courses and independent research in upper-level courses
- More opportunities to interact intellectually with faculty members outside the classroom
- Coordination to connect undergraduate researchers with professors



# Developing a Capstone Experience

- Student learning outcomes
  - Discipline specific
  - Design
  - Research techniques
  - Writing
  - Presentation
- Assessment
  - Measure specific outcomes
  - Track outside validation
  - Track alumni success
- Grading
  - Separate process, effort, and quality
  - Identify A, B, and C levels



# Transmission of Knowledge



- Presentations and publications
  - Departmental
  - Research Day
  - Undergraduate conferences
  - Discipline-specific conferences
  - CUR Posters on the Hill
- Modeling research for our students
  - Open faculty presentations to a student audience
  - Open capstone presentations to a student audience
  - Display poster presentations in prominent locations



# Faculty Roles

- Mentoring models
  - Small groups with similar projects
  - Student assistants for larger faculty projects
  - Individual topics with individual meetings
  - Are mentors chosen by students or assigned?
- Faculty workload issues
  - Should everyone be a mentor?
  - Is mentoring required for promotion?
  - How do student research products count?
  - Maximum number of students
  - Faculty expertise



# Assigning Academic Credit

- Is a new course needed?
  - Target is a 1-hour experience
  - 1-, 2-, or 3-semester models
  - Student workload (How many hours per week?)
  - Lab fees can be tied to the course
  - 8G Enhancement grants
- Can the research project replace an elective in the major?
- Can grading be deferred?



# Potential Stumbling Blocks



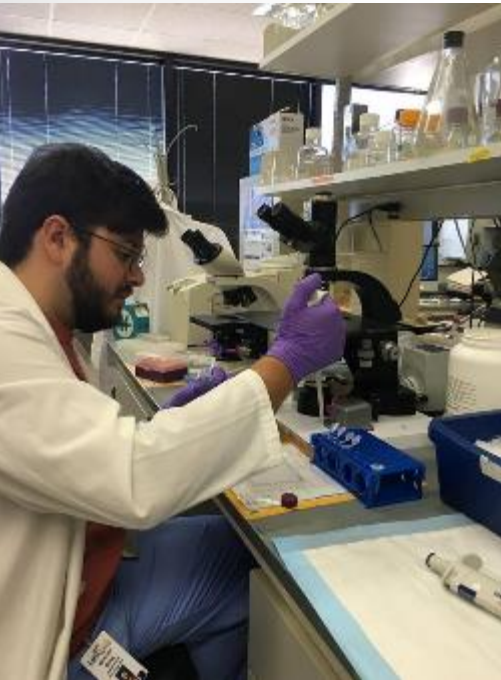
- Choosing a topic
- Establishing a timeline
- Making regular progress
- Completing the project on time
- Student-mentor conflicts

# Institutional Resources

- Large format poster printer
- Library archives
- Interlibrary loan
- Library instruction
- SPSS software
- ULS Academic Summit
- Phi Kappa Phi Student Research Award



# Dealing with Research Regulations



- Researcher safety
- Animal Care and Use
- Institutional Review Board



# Questions?

- To see examples, Scholars' College theses are archived in Watson Library
- If you have further questions, please contact
  - Dr. Betsy Cochran
  - Facilitator of Undergraduate Research
  - Cochran@nsula.edu