Research Rookies Faculty Mentor Handbook

Northern Illinois University

Research Rookies Administration:

Dr. Renique Kersh; Associate Vice Provost for Engaged Learning, Office of Student Engagement & Experiential Learning

Michaela Holtz; Associate Director, Office of Student Engagement & Experiential Learning

Lauren Anglin; Undergraduate Program Assistant, Office of Student Engagement & Experiential Learning

Contact: ResearchRookies@niu.edu
Research Rookies Motto

I am dedicated, highly motivated, and willing to work.

I want to get more involved in my field and gain valuable experience through undergraduate research or artistry.

I strive for academic excellence so that I can pursue my goals and activities.

I am proactive, taking my future into my own hands.

I am inquisitive, eager to learn, and ready to research the unknown.

I am a Research Rookie.
Contents

General Information ........................................................................................................... 4
  Program Description ........................................................................................................ 4
  Program Objectives .......................................................................................................... 4
  Research Rookies Administration ................................................................................ 4
  Program Components ...................................................................................................... 5
  Faculty Mentor Selection Process for Students .............................................................. 5
  Faculty Mentor Roles and Responsibilities .................................................................... 5
  Time Commitment ........................................................................................................... 6
  Meeting Information ....................................................................................................... 6
  Project Proposal ............................................................................................................... 7
  Project Proposal Guidelines ........................................................................................... 7
  Continuum of Project Proposal Designs ......................................................................... 8
  Library Resources ........................................................................................................... 8
  Research Rookies Reception .......................................................................................... 9
  Poster Production ........................................................................................................... 9
  Printing ............................................................................................................................ 10
  Undergraduate Research and Artistry Day ..................................................................... 10
  UNIV 105 Course ........................................................................................................... 10
  Office of Research Compliance & Integrity .................................................................... 10
  Biosafety .......................................................................................................................... 10
  IACUC .............................................................................................................................. 11
  Human Subjects ............................................................................................................... 11

Additional Program Services ............................................................................................ 11
  Travel Policy .................................................................................................................... 11
  Expectations and Responsibilities .................................................................................. 11
  Attendance Policy .......................................................................................................... 11
  Student Blog .................................................................................................................... 11
  Grade Point Average Policy ............................................................................................ 12
  Stipend ............................................................................................................................. 12
  Email Communication ..................................................................................................... 12
  Plagiarism ......................................................................................................................... 12

Additional Opportunities ................................................................................................ 12
  Undergraduate Special Opportunities in Artistry and Research (USOAR) .................... 12
  Summer Research Opportunities Program (SROP) ..................................................... 13
  Student Engagement Fund (SEF) ................................................................................... 13
General Information

Program Description

Research Rookies provides freshmen, sophomores, and first semester transfer students with the opportunity to participate in research at NIU. By working with an NIU faculty mentor, students have the opportunity to get involved in their potential field of study and ground-breaking research. Not only will this further your academic success during your initial years of college, it will give you an invaluable experience that will benefit you throughout your future.

As a Research Rookie, students are expected to spend approximately 5-10 hours working on your research project every week. In addition, you will meet regularly with the other Research Rookies, as well as the staff, to ensure that the research process is running smoothly. To conclude the year of work, Research Rookies must present at Undergraduate Research and Artistry Day (URAD). This gives students the opportunity to present the results of their Research Rookie project to the academic community.

Program Objectives

The goals of Research Rookies are to:

- Engage undergraduate students in faculty-mentored research or artistry
- Provide a positive learning environment through hands-on experience
- Help students pursue their goals and future fields of study
- Introduce students to the world of research and artistry
- Give students the opportunity to meet other driven and determined young people
- Give students the opportunity to present at Undergraduate Research and Artistry Day, so that the students gain experience organizing information in the accepted scientific format and presenting their research

Research Rookies Administration

All OSEEL staff can be reached at the following address:

Altgeld Hall 100
Northern Illinois University
DeKalb, IL 60115
815-753-8154
ResearchRookies@niu.edu
www.niu.edu/researchrookies
The pursuit of scholarly activities with undergraduate students brings faculty members some additional benefits that enhance satisfaction with their career and their personal development. These include the following:

- Opportunity to renew and reinvigorate enthusiasm for working with undergraduate students
- Intellectual stimulation and confidence associated with creative and critical thinking
- Excitement created by intellectual activity
- Opportunity to establish or re-invigorate a research, scholarly, or creative program
- Opportunity to promote and model lifelong learning to students and colleagues
- Internal and external recognition.


**Faculty Mentor Selection Process for Students**

Students are giving the following procedure/instructions for selecting their faculty mentor:

“First, look through the faculty members in your degree department and read about their research, and take note of three faculty members whose research interests you. Once you have selected the three faculty members, you should send out a general email to all three faculty members stating that you are a Research Rookie, you are interested in their research, etc. (A template of this email will be provided.) Whenever you are contacting faculty, remember to be formal and respectful. Always be polite and use proper email etiquette: spelling out all of the words, avoiding acronym use (i.e. LOL, JK, etc.), using correct grammar, and writing in a professional manner.

“When you hear back from your potential faculty mentors, set up a meeting with each of them so you can further discuss their research and make sure the situation is a good fit for both you and the faculty member. Dress nicely for these meetings, and be respectful and polite. After you have met with all of the faculty members who responded to your email, you can decide which faculty mentor you would like to work with. Remember that you can talk to the OSEEL staff along the way if you need advice or have any questions.

“Once you have decided on a faculty mentor, make sure to inform the OSEEL staff of your choice. Remember, it is important to speak to your mentor right away about the research proposal, and if you need IRB approval for your research so you can submit the appropriate IRB forms right away. We recommend that you meet with your faculty mentor at least once a week during the beginning of your project, one to two times per month during your project, and continue to email regularly during the rest of the year. Communicating sufficiently with your faculty mentor is vital to your success in this program, so always keep the lines of communication open.”

**Faculty Mentor Roles and Responsibilities**

Faculty mentors are to guide the students through the research or artistry process. Research Rookies helps each student identify a faculty mentor to:

- Provide learning resources and necessary tools for the research/artistry project
- Meet with the student to plan and complete the project
- Attend the Faculty Mentor Orientation Luncheon on Tuesday, October 6, 2015
- Communicate goals for the project outcomes with the student
- Attend the Research Rookies Reception on November 30, 2015
- Assist the student with preparation for Undergraduate Research & Artistry Day (URAD)
- Notify the OSEEL staff of any issues or concerns related the student
- Maintain open lines of communication with the student as applicable

**Time Commitment**

Students are expected to spend 5-10 hours per week for their research. If you, the faculty mentor, notice your student having difficulty committing this time to the research project, please contact the Research Rookies staff. The weekly time commitment can include writing the project proposal, conducting a literature review, working with a Graduate Assistant, working in the lab or other works space, or spending one-on-one time with the faculty mentor.

**Meeting Information**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, August 24</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, September 14</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, October 5</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, November 2</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, November 23</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, November 30</td>
<td>3-4:30 pm</td>
<td>Altgeld Auditorium</td>
</tr>
<tr>
<td>Research Rookies Reception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday, January 25</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, February 8</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, March 7</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Monday, April 4</td>
<td>6-8 pm</td>
<td>Altgeld Hall 125</td>
</tr>
<tr>
<td>Tuesday, April 19</td>
<td>9 am-3 pm</td>
<td>Holmes Student Center, Duke Ellington Ballroom</td>
</tr>
<tr>
<td>Undergraduate Research and Artistry Day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday, May 2</td>
<td>6-8 pm</td>
<td>TBA</td>
</tr>
<tr>
<td>End of Year Celebration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Monthly cohort meetings are held throughout the year by the OSEEL staff. They give the students and staff time to check-in and ensure things are progressing smoothly. At the meetings, important information is passed along to the students regarding key aspects of successful research at NIU, which is why attendance is mandatory. If a student cannot attend a meeting, he/she must contact the OSEEL staff regarding the absence before the meeting happens. Below you will find a table including all monthly meeting dates for the 2015-16 academic year. For more dates and deadlines, visit the Faculty Mentor Resources page of the Research Rookies website. Faculty mentors are not required to attend monthly cohort meetings.
**Project Proposal**

The project proposal helps to focus you the student before getting started. The completed proposal shows OSEEL and the faculty mentor that the student knows about the project, its purpose, what will be done throughout the program, etc. The project proposal also provides a good base for the information that will later be presented at the Summer Research Symposium. Below is an outline for the project proposal:

**Project Proposal Guidelines**

1. **Abstract**
   The abstract should be a brief description of the project, its objectives, and expected results. The abstract should be written for an educated but not expert audience. Please limit this section to 250 words or less.

2. **Project Description (limit 6 pages, double spaced)**
   The project description should be a clear statement of the work to be undertaken, using the five headings (A-E) below. It should be no more than six (6) double-spaced pages long with 10-point to 12-point font and 1-inch margins. **Please note:** While the mentor should be consulted, it is the student’s responsibility to write the proposal in his/her own words, and not copied from a website, article or other work. Plagiarism is cause for removal from the program.
   a. **Background and Context:** Explain the present state of knowledge, understanding or creative experimentation in the field with proper citations of pertinent literature where appropriate. (See Literature Cited, section III). Make it clear why the research or artistry project needs to be undertaken to fill a gap in knowledge. In addition, highlight how the project pertains to leadership, research, and/or civic, social, and global engagement.
   b. **Statement of Significance and Impact:** Explain the significance of the project as it contributes to the advancement of learning within the field (i.e. the big picture), to the enrichment of our cultural and aesthetic heritage, to the public welfare (i.e. the greater good) and/or to other research conducted within the same lab or unit.
   c. **Statement of Project Objectives:** Clearly and concisely state the research question or creative concept that will be addressed during the period of the proposed project.
   d. **Methods:** Describe, in clear and understandable terms, the general plan of work in order to fulfill the stated goals and project outcomes.
   e. **Outcomes:** What are the expected results or the expected range of results? What happens if the data does not yield the results you expected? How will “other” results be interpreted? For creative projects, what will be the final product of the proposed project? Possible products are a report, a publishable article or chapter, a performance, a policy recommendation, a painting, etc. Be specific. **Please note:** Research Rookies requires a final presentation at Undergraduate Research & Artistry Day (URAD). It is up the faculty mentor’s discretion for additional, required final products.
3. **Literature Cited** (This is not included in your 6 page limit)
   Include a list of references that are cited in the abstract and/or proposal, especially in section A. Use standard professional format such as APA style for your literature citation (field appropriate).

4. **Impact on Academic Experience** (This is not included in your 6 page limit)
   Indicate how the proposed independent artistry or research is expected to enhance the specific student’s academic experience.

5. **Timelines of Project Activities** (This is not included in your 6 page limit)
   Provide a timeline of activities throughout the program. Include specific benchmarks to achieve throughout the academic year (such as literature search, data collection, data analysis, and final product preparation to name a few). **This timeline should be on a weekly or bi-weekly basis.** Timelines written in narrative form will not be accepted.

**Continuum of Project Proposal Designs**

Included below is a continuum of undergraduate research and artistry projects that former Research Rookies have designed and executed. Although we acknowledge that some students have completed a student-only designed project (right-side of the continuum) in the past, most of the Research Rookies complete projects designed and initiated by the faculty mentor (left-side of the image). Given the nature of the program and the limited time to complete a research project, it is highly recommended that students work on projects designed by the faculty mentor.

![Continuum of Project Proposal Designs](image)

**Library Resources**

In order to write the research, students may need to find published journal/scholarly articles that provide background on the proposed topic. The Founders Memorial Library offers a variety of research resources. Some of these resources include: the NIU online catalog, interlibrary loan, requesting services (NIUILLiad), scholarly article databases, and subject specialists.
The National Research Council, the National Science Foundation, the American Association for the Advancement of Science, and other organizations recommend that all undergraduate students be encouraged to pursue research projects, and that they get involved in research as early as is practical in their school programs. This has been achieved, in part, by getting students to work on research projects in lab and field settings under the guidance of faculty mentors beginning as early as their freshman and sophomore years.


The NIU online catalog is used to quickly find appropriate books, magazines, articles, etc on the inputted information. For example, if the project topic is on groundwater contamination caused by agricultural pollution, the student or mentor could go to the library catalog (http://vufind.carli.illinois.edu/vf-niu/) and type in “groundwater contamination” into the search field. The online catalog then searches for relevant materials based on the search parameters.

Interlibrary loan is used when checking out a book, magazine, or other source that is not found at the NIU library. The student or mentor must then file an NIU ILLiad request (https://niu.illiad.oclc.org/illiad/JNA/logon.html). Make sure to have all pertinent information about the requested source. Once the request has been processed, the library staff will send a notification email when the request has been filled.

The library also has article databases that contain articles that have been published in various scholarly journals and other sources. Log onto http://libguides.niu.edu/find to search for articles by subject. Then search for the specific topic through the search field.

Subject specialists are extremely important because they understand the fundamentals for their given subject and are able to assist in finding appropriate material for the project proposal.

If the student or mentor has any questions, there is help online through the “Ask-A-Librarian” chat window or contact your subject specialist.

**Research Rookies Reception**

Towards the end of the fall semester, Research Rookies hosts a welcoming ceremony for all Research Rookies and their faculty mentors. It is an opportunity for students to get to know each other and the faculty they will be working with, as well as some of NIU’s administrators and special guests that support Research Rookies. Students are asked to dress in business casual attire and be prepared to give a very brief introduction to their project and faculty mentor.

**Poster Production**

Putting together a poster for presentation takes a lot of time and energy, so we encourage both students and faculty mentors to start the process early. Use the project proposal as a basic guideline, since it contains some or all of the parts that will have to be on the poster. We highly recommend that students edit the sections from their proposal throughout the year so that at the end they are up to date and you do not have to re-write all of the material.

As it gets closer to the end of the year, the OSEEL staff will provide templates for the Undergraduate Research and Artistry Day (URAD) poster. The templates are also available online through the Undergraduate Research & Artistry Day website. It is best to use these templates as the base of the post, because all of the proportions are set for the correct Undergraduate Research and Artistry Day poster size (32”x40”). Detailed information will be given closer to the end of the year.
Undergraduate researchers learn tolerance for obstacles faced in the research process, how knowledge is constructed, independence, increased self-confidence, and a readiness for more demanding research. These benefits are an advantage in any career path.


**Printing**

NIU has its own printing service that students can use to have their poster printed. However, the Creative Services team is always very busy around the time of Undergraduate Research and Artistry Day. Thus, we encourage the Research Rookies to turn in their poster document early. It is also extremely important that the poster is error-free when sent, given there is funding for only one copy to be printed.

Many of the departments have their own printing services, as well. Students, if able, can print using the department’s printing services but we strongly encourage students to print by the Creative Services deadline, usually in the first week of April.

**Undergraduate Research and Artistry Day**

Undergraduate Research and Artistry Day is scheduled for Tuesday, April 19, 2016. In the past, there have been over 300 participants, all of whom present posters regarding their research. Not only do Research Rookies have the opportunity to present the findings to the academic community, but each poster is judged by two NIU-faculty judges. URAD judges look for significance, aesthetics, originality, etc., and award 1st, 2nd, and 3rd places in two categories. Also, a People’s Choice award is also given out because the event is free and open to the public. For a detailed list of what the judging criteria are, visit the [Undergraduate Research and Artistry Day website](#).

**UNIV 105 Course**

As a supplement, *UNIV 105: Introduction to Information Research* is being offered specifically for Research Rookies. The course introduces students to the basic processes involved in research. Overall, it is a great way for them to get connected to resources. OSEEL strongly recommends all first-year Research Rookies to enroll.

**Office of Research Compliance & Integrity**

The Internal Review Board (IRB) ensures that all research done through NIU follows specific guidelines and does not endanger any of the participants. NIU holds its researchers to extremely high standards so that the integrity and safety of NIU is not jeopardized by any research. Depending on the research being conducted, you may need to undergo either the IRB process regarding Biosafety, IACUC, or Human Subjects. A brief description of each is provided below, and more detailed information can be found on the NIU website through the Office of Research Compliance and Integrity.

**Biosafety**

Students participating in research involving recombinant DNA, and/or pathogenic substances, will have to go through the Biosafety review process. Contact Michele Crase from the Office of Research Compliance and Integrity for more detailed information.
IACUC

IACUC focuses on NIU’s want to ensure the safety of any live, vertebrate animals used in university research. If any research involves animals, an IACUC form must be submitted to prove that the animals are not put in any unnecessary harm. Contact Michele Crase from the Office of Research Compliance and Integrity for more information.

Human Subjects

Any research involving human participants needs to be approved via the IRB process. Even if it is conducting surveys, getting the approval will more than likely be necessary. Contact OSEEL or Jeanette Gommel from the Office of Research Compliance and Integrity for more information.

Additional Program Services

Travel Policy

Research Rookies have the option to travel with their faculty mentors to conferences, conventions, symposiums, or other field-related events. However, the event must be approved by the university and cannot interfere with coursework. Students who wish to travel with their faculty mentors must plan accordingly and speak with all of their instructors before missing class.

If students have to pay for their own travel expenses, the Office of Student Engagement and Experiential Learning does have a travel fund available to students for presenting work at a local, regional or national conference in their field. Information the Student Engagement Fund (SEF) can be found below.

Expectations and Responsibilities

Attendance Policy

Attendance is taken at every Research Rookies meeting due to the importance of the information discussed. If a student cannot attend one of the meetings due to a conflict or illness, s/he must contact the Research Rookies staff prior to the meeting so that a makeup meeting can be scheduled. If a student does not contact the OSEEL staff prior to the absence, the absence will be unexcused. Each unexcused absence will result in a 10% stipend deduction. If the student has more than three (3) unexcused absences from meetings or events, s/he may be released from the program.

Student Blog

Research Rookies are required to record a blog site during their time in the program. Each student will be required to update his/her blog at least one time per month. Each month’s blogging topic will be released at the monthly cohort meeting.
**Grade Point Average Policy**

Research Rookies are held to a higher academic standard. This means that students are responsible for maintaining a 3.0 GPA. Participating in research is a privilege that needs to be worked for, but cannot interfere with academic success. If students do not maintain the 3.0, we will work with them to create an academic plan for future semesters. If you, the faculty mentor, notice or have concerns regarding your student’s academic performance, please don’t hesitate to contact the OSEEL staff.

**Stipend**

Students will only receive the $500 stipend at the end of the program if following requirements are met:

- Present at Undergraduate Research and Artistry Day
- Good academic standing at the end of the school year
- Less than three (3) absences during the academic year

**Email Communication**

Email is the main form of communication used by the OSEEL (Office of Student Engagement and Experiential Learning). Emails can be sent to ResearchRookies@niu.edu for specific Research Rookies questions, or to ugresearch@niu.edu for other research-related questions. These resource mailboxes are checked regularly by the OSEEL staff.

**Plagiarism**

Research Rookies is an academic community that strives for academic honesty, integrity, and originality. All Research Rookies are advised that presenting another’s work as your own, even if by accident, is a serious violation of university policy and the Student Code of Conduct. The Student Code of Conduct identifies the following as acts of academic dishonesty: “The term ‘plagiarism’ includes but is not limited to the use, by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. Plagiarism also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials” (p. 17). Suspected cases of plagiarism will be investigated and dealt with by the Program Director and the Office of Community Standards & Student Conduct.

**Additional Opportunities**

**Undergraduate Special Opportunities in Artistry and Research (USOAR)**

USOAR is a program that funds student-generated research or artistry projects, whether the study is conducted on campus, somewhere else in the United States, or overseas. Students whose proposals are selected are granted up to $2,500 to carry out their project. Students have between January 1 and December 31 to complete their USOAR project and must submit documentation (final report, receipts, and pictures) to OSEEL within 6 weeks of completion of their project. USOAR funding is for project-related expenses only (e.g., conference registration, accommodations, equipment, etc.), not personal compensation.
Summer Research Opportunities Program (SROP)

In SROP, students will learn what research looks like in their field of study, learn how to write a formal research proposal and gain experience working alongside talented faculty at NIU. They will also receive housing, meals, and a generous stipend. Please note: Students participating in STOP are required to live together in the residence hall; participants cannot take summer classes or work another job for the duration of the program.

Student Engagement Fund (SEF)

All NIU undergraduate students can apply for stipends to work on faculty-mentored research projects and travel to conferences. College of Liberal Arts and Science undergraduates can apply for additional funding to cover a wide range of expenses related to a student engagement activity. Requests need to be for a minimum of $250. Undergraduate students may apply on their own behalf. Faculty can apply for funding on behalf of students working on research projects or service learning projects. Faculty can also apply for funding on behalf of students to be used for group travel expenses and student expenses for conferences and competitions.