

THE WAKE FOREST RESEARCH FELLOWSHIP PROGRAM

2008

The Wake Forest Research Fellowship Program is designed to encourage individual Wake Forest undergraduates to join their professors as junior partners on scholarly research projects. While improving opportunities for mentoring and helping students to progress into advanced work, the fellowships are also a means of supporting successful and dedicated students with financial scholarships. Up to 55 competitive, merit-based fellowships will financially assist students who collaborate with faculty mentors. Since the Plan for the Class of 2000 stated that some fellowships should be used to encourage the professional growth of students from groups that are underrepresented in certain disciplines, ten of these Fellowships will be set aside for the Women in Science Program.

For the summer of 2008, up to 55 fellowships will be awarded. Each award will provide a \$4,000.00 stipend. Fellows will be expected to engage in research fully across a 10 – week period. It will not be possible to enroll for any summer session courses while working as a summer fellow. Each candidate is invited to apply for support for on- campus housing. The fellowship will cover one-half of the charge for a double room across both summer terms.

In addition, when it is necessary and appropriate for the conduct of a given project, the student researcher may propose, as part of the initial application, a supplies and expense budget not to exceed a maximum of \$500.00. This request will be evaluated and must be approved by the committee as part of the complete fellowship proposal. Such requests, written in memorandum form and describing in as much detail as necessary its various items, are to be attached to the application form for the committee's evaluation.

The Wake Forest Research Fellowship Program augments many other research opportunities available to Wake Forest students. It is hoped that many successful projects begun in the Fellowship program will be continued after the Fellowship period has ended. For example, some projects may be continued in the form of independent study or directed research courses or in the form of grant-supported research.

Qualifications and Expectations

Student applicants must have a cumulative 3.0 grade point average at the time of application. Sophomore standing (25 or more hours passed) is required by the time the research project begins.

Students applying for the summer 2008 fellowships must submit completed applications by no later than March 17. The committee will begin its deliberations immediately thereafter. Proposals are to be developed jointly with the project mentor. Should a student propose a project involving research at the Wake Forest University School of Medicine, a mentor will be required from both the Hawthorne and Reynolda campuses. A maximum of 55 fellowships will be available for each summer. Any student applying for a second fellowship award will be considered, assuming grant funding remains, only after all first-time applicants' proposals have been reviewed.

Completed proposals should be presented to Dean Hale in the Office of the Dean of Summer Sessions, 125 Reynolda Hall. The Research Fellowship Committee will review each proposal, and the student and his or her faculty collaborator will be notified of its disposition. Should modifications of a proposal be called for, the participants will be so notified.

As an integral part of the program, each Fellow will be required to submit to the Committee a project-ending piece of work. These concluding pieces may come in various forms: a poster, a written report, a visual report, an artistic production to include art pieces, theatrical productions, computer-based productions, pieces of creative writing, and so forth. These projects must be submitted to Dean Hale's Office, 125 Reynolda Hall, as soon as possible after the research period has ended. In no case should the submission period for the completed projects extend beyond a six-week span.

Guidelines for Natural Science Research
Wake Forest Research Fellowship Program

1. There shall be a short (1/2 page) section on the background, significance and goals of the project. This section must state the broad scientific problem under study, potential applications that may benefit society, and the student's specific goals. This section must be written by the student, although it is understood that the mentor will provide the student with necessary background information and references.
2. A second section should describe the research design and methods to be used in the project. This section must make clear how the work is expected to meet the research team's goal. This section may be prepared by the student, the mentor, or both.
3. Finally, the committee expects that the student and mentor will have thoroughly discussed the completed application before it is submitted. This is to ensure that both members of the team are aware of and fully committed to the project.

Guidelines for Research in the Arts
Wake Forest Research Fellowship Program

1. For collaborative projects in the arts, it is imperative that the role of the student be clearly defined. The need for clarity in the student's role dictates that she or he writes the section of the application, which describes his or her part in this joint effort.
2. For the student the end result of a collaboration project should be:
 - (a) a research summary
 - (b) a performance accompanied by a written summary of the research process
 - (c) an object or body of work accompanied by a written summary of the research process

Guidelines for Social Science Research
Wake Forest Research Fellowship Program

The ultimate goal of social science research is to understand, explain, and make inferences about human behavior. Empirical research emphasizes direct observation and experimentation as a way to answer questions. Everyday observations are not always made carefully and systematically, nor do they control for factors that may influence the events being observed. Research requires a hypothesis or question to be tested, a methodology that addresses the hypothesis, and analyses that test how well the data answer the research question. Two research paradigms are generally used in the sorts of studies conducted by Research Fellowship students: Observational studies and Questionnaire studies.

Observational Studies. Scientific observations are made under clearly defined conditions, in a systematic, objective manner, and with careful recording. Naturalistic observations are made by

unobtrusive observers in the location(s) where the behaviors of interest normally occur (e.g., children's aggressive interactions on a playground). Narrative records provide faithful descriptions of all ongoing behaviors as they happen, without focusing on any particular behavior. Narrative records may be written, tape recorded, or video recorded.

Analysis of narrative records requires data reduction through careful coding of behaviors according to specific predefined criteria (e.g., kicking, slapping). The frequencies or durations of specific behaviors are calculated and compared statistically. In order to control for observer biases, interobserver reliability should be established by examining the coding agreement of two independent observers who review the same sample of behavior (e.g., the same videotapes). Personal biases and subjective impressions are not appropriate in social science research.

Questionnaire Studies. Questionnaire studies focus upon one behavior, or a limited set of behaviors, and responses are collected in a standardized fashion from every study participant. Surveys or questionnaires are composed of a set of predetermined questions that are asked in the same way for all respondents. Oral or written responses constitute the principal data obtained from a survey, and when properly conducted, surveys are an excellent way to describe the attitudes and opinions of a group. Questionnaires must be constructed prior to data collection, and the way a question is asked is critical to the validity of the responses given (e.g., "How often do you beat your wife?" vs. "Do you ever physically fight with your wife?"). Good survey questions should: contain simple, direct vocabulary that is familiar to all respondents; be clear and specific; not leading or loaded to obtain a desired response; be as short as possible; not contain offensive language or concepts; be readable; and use appropriate response formats.

Questionnaires should be pilot tested with a small group of participants similar to the actual study participants. Pilot testing insures that participants' responses reflect the information of interest to the researcher and not bias due to wording or question format. Pilot testing is essential when questionnaires are given to different cultural groups who may interpret questions differently. Appropriate modifications in questions, based on the data from the pilot study participants, should be made prior to administering the questionnaire to the actual study participants.

Evidence for both the reliability and validity of a questionnaire is essential for collecting meaningful data. As with observational data, questionnaire data requires data reduction through coding and statistical analysis.

Samples. For both observational and questionnaire studies, the sample of individuals who will participate in a study should be identified well before the study begins. Study participants should be a clearly defined group (e.g., African-American men over age 50) selected because of their relevance to the study hypothesis and their representativeness of the population of interest. They should not be a heterogeneous mixture of whoever is available.

If a study is to be conducted in another country, long before leaving the USA, the researcher should make contact with colleagues who will help locate individuals who are willing to participate in the study. Do not expect to get off the plane and find potential research participants waiting to take part in your study.

Many individuals are reluctant to answer questions or participate in research because they are unsure of what will be done with the information collected. Many individuals are generally suspicious of researchers or of Americans, and in some cultures "giving away" information about

oneself is considered inappropriate or dangerous. It is vitally important that every detail of the study's methodology be planned before going to the study location.

Institutional Review Board (IRB). Wake Forest University must comply with federal guidelines governing research with human subjects. Therefore, any study conducted with human participants must be submitted to the IRB. Should one's project call for IRB approval, the WFURF Committee strongly recommends that said approval be sought and gained PRIOR to the submission of your proposal on or before March 17, 2008. The IRB, which is composed of faculty members and community representatives, will examine your study description to ensure that subjects are treated safely and respectfully. IRB application forms are available from the Office of Research and Sponsored Programs, Room 117E, Reynolda Hall or on the web at: <http://www.wfu.edu/rsp/irb/forms.html>.

The IRB is moving to eIRB, an electronic submission and review system, this fall. Access to the eIRB training schedule, training materials and the eIRB submission site through the Reynolda Campus IRB website. Some procedures are changing with the advent of eIRB. Researchers are advised to review these changes on the eIRB FAQs accessible on the IRB web.

Applications that qualify for exempt or expedited review may be submitted any time. For purposes of planning, the IRB coordinator has provided the following schedule for researchers submitting protocols that must be reviewed by the full IRB:

Submission Deadlines:

IRB Meeting:

9/17/07
10/15/07
11/19/07
12/17/07
1/28/08
2/18/08
3/24/08
4/21/08
5/12/08

Submission by 5 p.m.:

9/03/07
10/01/07
11/05/07
12/03/07
1/14/08
2/04/08
3/10/08
4/08/08
4/28/08

Before the implementation of eIRB in fall 2007, completed paper applications (2 copies) may be:

1. sent or hand-carried to ORSP, 117E Reynolda Hall;
2. emailed to irb@wfu.edu; or
3. faxed to IRB coordinator at (336) 758-1959.

Please be aware of the fact the LAST IRB meeting of the '07-'08 academic year is on May 12 (submission date: April 28, 2008). This means that all applications must be approved by this date since the IRB does not convene during the summer. When eIRB is implemented and training has been completed, all IRB applications must be submitted via eIRB. Paper applications submitted after that date will be returned to the researcher.

In addition to the completed application, the researcher and study team must complete CITI, a human subjects' protection course, accessible at www.citiprogram.org and register as Wake Forest University. The basic course must be completed if the researcher has not taken CITI before. An application will not be approved until the study team members have completed CITI.

A Final Word. If in doubt about a particular aspect of a study's design or methodology, consult a research methods text and discuss questions with your study advisor. Collecting invalid data is a true waste of your time and that of your study participants.

Wake Forest University Research Fellowship Application (Please print or type)

Student Full Name & ID # :	
Local Mailing Address:	
Telephone number and Email Address:	
Enter WFU class at start of fellowship (So., Jr., or Sr.) and expected Graduation Date:	
Cumulative GPA (3.0 GPA required at time of application):	
Major Department:	
WFURF Mentor & Department:	
Title of Proposed Project:	
Beginning and ending dates for this project:	
Associated Matters: Please check those that apply.	<input type="checkbox"/> Are you requesting supplies/equipment support? (\$500.00 maximum award) If so, please attach a detailed budget statement to your completed application. Are you requesting a residence hall room? <input type="checkbox"/> Yes <input type="checkbox"/> No

Student applicants: Attach the following information to this form:

- A. A one-page description of your proposed project.
- B. Share with the Committee a statement documenting how the project will advance yours and your mentor's research.
- C. A list of relevant literature citations that serve as a backdrop for the proposed project.
- D. Describe to the Committee the experience you have had which has prepared you to pursue the research project.
- E. List any sources or potential sources for additional funding of this project and how this fellowship would be related to that funding.

Mentors: Attach a brief statement outlining your role in this project, including your expected time commitment and a comment on how this project relates to your work and that of your other students and collaborators.

Signatures of project applicants:

_____ Student _____ Date

_____ Mentor _____ Date

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Committee Action: Date Received: _____ Date Reviewed: _____ Accepted: _____ Denied: _____

_____ Signature of Committee Chair