



Information available from:

NSF Graduate Research
Fellowship Program
Oak Ridge Associated Universities
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<http://www.orau.org/nsf/nsffel.htm>

NATIONAL SCIENCE FOUNDATION

GRADUATE RESEARCH FELLOWSHIPS

Guidelines for Submission of Applications

Program Year 2001

Deadline for entering the competition:
November 7, 2000

SUMMARY OF PROGRAM REQUIREMENTS

GENERAL INFORMATION

Program Title: Graduate Research Fellowship Program (GRFP)

Synopsis of Program: The National Science Foundation (NSF) aims to ensure the vitality of the human resource base of science, mathematics, and engineering in the United States and to reinforce its diversity by offering approximately 900 graduate fellowships each year, including awards for women in engineering and computer and information science. Fellowships provide three years of support for graduate study leading to research-based master's or doctoral degrees in the fields of science, mathematics, and engineering supported by the NSF and are intended for students in the early stages of their graduate study.

Applicable Catalog of Federal Domestic Assistance (CFDA) No.:

47.076, Education and Human Resources.

ELIGIBILITY INFORMATION

- **Citizenship:** Applicants must be United States citizens or nationals, or permanent resident aliens of the United States.
- **Field and Degree Program:** Fellowships are awarded for graduate study in fields supported by the NSF, including the mathematical, physical, biological, behavioral and social sciences; engineering; the history of science and the philosophy of science; and for research-based PhD degrees in science education.
- **Earned Graduate Study:** Fellowships are intended for individuals in the early stages of their graduate study. In most cases, an individual has three opportunities to apply: during the senior year of college, the first year of graduate school, and the beginning of the second year of graduate school.

AWARD INFORMATION

- **Anticipated Type of Award:** Fellowships provide three years of support that may be used over a five-year period.
- **Estimated Number of Awards:** 900
- **Amount of funds available:** \$16,800 stipend for a 12-month tenure plus \$10,500 cost-of-education allowance per tenure year pending availability of funds
- **Anticipated date of award:** New fellowships to be offered in March 2001

APPLICATION PREPARATION AND SUBMISSION INSTRUCTIONS

A. *Application Preparation Instructions*

Complete instructions are outlined in *Guidelines for Submission of Applications*.

B. *Application Deadline*

Applications must be submitted via FastLane by 5:00 p.m. in the applicant's local time zone on November 7, 2000.

C. *FastLane Requirements*

- Submission via NSF's FastLane GRFP process is expected.
- FastLane Technical Questions can be directed to: FastLane Help Desk: 1-800-673-6188; felapp@nsf.gov

PROPOSAL REVIEW INFORMATION

Merit Review Criteria: NSF Merit Review Criteria apply.

AWARD ADMINISTRATION INFORMATION

Award Conditions: Outlined in *Information for Graduate Research Fellows* booklet
<http://www.nsf.gov/cgi-bin/getpub?nsf0060>.

NATIONAL SCIENCE FOUNDATION GRADUATE RESEARCH FELLOWSHIPS (Including Women In Engineering And Computer and Information Science Awards)

ACADEMIC YEAR 2001-2002

The National Science Foundation (NSF) aims to ensure the vitality of the human resource base of science, mathematics, and engineering in the United States and to reinforce its diversity. To that end in March 2001, the NSF will award approximately 900 new three-year Graduate Fellowships, including awards offered for women in engineering and computer and information science.¹ Continuing a long history of program success, NSF Fellows contribute significantly to research, teaching, and industrial applications in science, mathematics, and engineering.

As part of its mission to promote the progress of science, mathematics, and engineering, NSF supports individuals and groups to engage in activities that ensure a technologically literate populace with the understanding and skills needed for the workforce of the twenty-first century as well as fully trained scientists and engineers for the present and the future. In forming its investment strategy for education and human resource development, NSF's aim is to ensure that all members of society have real opportunity to succeed in science and technology so that the Nation can draw upon the strength and creativity that the diversity in our society has to offer.

The Foundation welcomes applications from all qualified science, mathematics, and engineering students and strongly encourages women, minorities, and persons with disabilities to compete fully in this program.

ELIGIBILITY

Citizenship

NSF Graduate Fellowships are open only to individuals who are, at the time of application, citizens or nationals of the United States² or permanent resident aliens of the United States.

Field and Degree Program

Fellowships are awarded for graduate study leading to research-based master's or doctoral degrees in the fields of science, mathematics, and engineering supported by the National Science Foundation listed later in these *Guidelines*. Awards are also made for work toward a research-based PhD in science education that requires a science competence comparable to that for PhD candidates in scientific disciplines. Research in bioengineering with diagnosis or treatment-related goals that applies engineering principles to problems in biology and medicine while advancing engineering knowledge is eligible for support. Bioengineering research to aid persons with disabilities is also eligible.

Support is not provided for study in clinical, counseling, business, or management fields; in other education programs of any kind; or in history or social work; for work in medical, dental, law, public health, or practice-oriented professional degree programs; or in joint science-professional degree programs such as MD/PhD and JD/PhD programs. Support is not provided for clinical research or for research with disease-related goals, including work on the etiology, diagnosis or treatment of physical or mental disease, abnormality, or malfunction in human beings or animals. Research involving animal models of such conditions or the development or testing of drugs or other procedures for their treatment also is not eligible for support.

Earned Graduate Study

NSF Graduate Fellowships are intended for individuals in the early stages of their graduate study in science, mathematics, or engineering. In most cases, an individual has three opportunities to apply: during the senior year of college, the first year of graduate school, and the beginning of the second year of graduate school. Individuals who have completed one year or less of full-time graduate study in NSF-supported fields will be given preference over more advanced students. Typically, individuals who started full-time graduate study in August/September 1999 and are applying by November 2000 will be considered to have completed no more than one year. Applicants who have completed more than one year of full-time graduate study (or the equivalent in part-time study) should explain in Question 16 of the *Application Form* the circumstances that they believe qualify them for being considered to be in the early stages of their graduate program. Individuals are not disqualified by reason of holding a **master's degree**, provided that they meet the conditions above or in one of the bullets below.

The following list provides examples of individuals who have completed more than one year of graduate study and who may be considered to be in the early stages of their graduate study:

- **Part-time students** who have completed no more than 30 semester hours, 45 quarter hours, or equivalent of graduate study in the science, mathematics, or engineering fields supported by this program since completion of a baccalaureate degree in science, mathematics, or engineering, may apply.
- **Returning students** who have interrupted their studies (for example, to gain work experience or for family or medical reasons) are considered to be in the early stages of their graduate studies if their most recent full-time graduate study is more than two years prior to the time of application and if this interruption results in the student essentially starting over.
- **Students changing fields** are considered to be at the early stages of their graduate studies if the change is great enough so that the student is essentially starting over. If more than four courses would transfer to the new program, the reviewers will evaluate this applicant like a second year student in a continuous program.
- No individual will be eligible who, at the time of application, has earned after October 1, 1996, a **PhD** in science, mathematics or engineering, or any medical degree, such as the **MD, DDS, or DVM**.

¹ Funding for these additional awards is provided by the Directorate for Computer and Information Science and Engineering, the Directorate for Engineering, and the Directorate for Education and Human Resources.

² The term "national of the United States" designates a citizen of the United States or a native resident of a commonwealth or territory of the United States, such as American Samoa, Guam, Puerto Rico, U.S. Virgin Islands, or the Northern Mariana Islands. It does not refer to a citizen of another country who has applied for United States citizenship.

Eligibility for the Women in Engineering and Computer and Information Science Awards

The Women in Engineering and Computer and Information Science (WECS) awards are limited to women who intend to pursue graduate degrees in one of the fields listed under the headings “Engineering” or “Computer and Information Science and Engineering” later in these *Guidelines*. All women who apply in fields listed under “Engineering” or “Computer and Information Science and Engineering” will automatically be considered for a Women in Engineering and Computer and Information Science award. Aside from this field restriction, other eligibility criteria are the same as for applicants in other fields.

EVALUATION OF APPLICATIONS

Each applicant’s qualifications will be reviewed by disciplinary panels of scientists, mathematicians, and engineers convened in February 2001 for NSF by Oak Ridge Associated Universities (ORAU). Applications are assigned to panels based on the applicant’s chosen field(s) of study and are evaluated on the basis of all available information. In considering applications, reviewers are asked to address two questions that are the basis of NSF’s merit review criteria: (1) What is the intellectual merit of the applicant? and (2) What are the broader impacts of supporting the individual’s graduate study?

Intellectual Merit Criterion

Intellectual merit includes intellectual ability and other accepted requisites for scholarly scientific study, such as the ability (1) to work as a member of a team as well as independently; (2) to communicate; and (3) to plan and conduct research. Panelists are instructed to consider: the strength of the academic record, the proposed plan of research, the description of previous research experience, the appropriateness of the choice of references and the extent to which they indicate merit, Graduate Record Examinations (GRE) General and Subject Tests scores, and the appropriateness of the choice of institution for fellowship tenure relative to the proposed plan of research.

Broader Impacts Criterion

Broader impacts of supporting an applicant’s graduate study may include contributions to community, both social and scholarly. Consideration is also given to unique characteristics of each applicant’s background, including personal, professional, and educational experiences. As in all NSF programs, valuing diversity and the integration of research and education are important elements of the merit review criteria.

Integration of Research and Education

One of the principal strategies in support of NSF’s goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the

diversity of learner perspectives. Applicants should address this issue in their written statement(s) to provide reviewers with the information necessary to respond fully to both NSF merit review criteria.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens—women and men, underrepresented minorities, and persons with disabilities—are essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports. Applicants should address this issue in their written statement(s) to provide reviewers with the information necessary to respond fully to both NSF merit review criteria.

SELECTION OF AWARDEES

The review panels’ recommendations for fellowships will be further reviewed by NSF staff for conformance with Foundation policy. Awards will be made by the NSF on the basis of merit in accordance with Section 10 of the National Science Foundation Act of 1950, as amended. Selection of awardees will be in the merit order established by the review panels; other criteria such as geographical region, discipline, or other factors determined to be consistent with policy and legislative intent will be used to select among applications of substantially equal merit (as determined by the merit review process).

The NSF will publish lists of awardees and Honorable Mention recipients on the Graduate Research Fellowship Program web site at: <http://www.nsf.gov/grfp> in late March 2001. All applicants will be notified by letter of the outcome of their applications. Those applicants who merit receiving Graduate Research Fellowships, but to whom awards cannot be made because funds are not available, will be accorded Honorable Mention. Honorable Mention in the NSF Graduate Research Fellowship Program is considered a significant academic achievement nationwide. All offers and support levels referenced in these *Guidelines* are subject to availability of funds.

CONDITIONS OF AWARDS

All fellowship awards are made subject to the provisions contained in the booklet *Information for Graduate Research Fellows*, including any subsequent amendments, which is provided to all awardees. Only the most basic information contained in that booklet is presented in these *Guidelines*. Three certifications³ must, by law, be made before the NSF can authorize funds for a fellowship award.

Graduate Programs

Fellows may choose any appropriate, accredited, non-profit United States institution or appropriate international institution of higher education offering advanced degrees in science, mathematics, or engineering.

Fellows are required to engage in full-time programs leading to graduate degrees in disciplines supported by NSF. Acknowledging the importance of integrating research and education, the NSF permits insti-

³ These concern: 1) controlled substances; 2) delinquency on Federal debt; and 3) debarment and suspension from certain transactions with Federal, State, or local governments.

tutions to assign Fellows to appropriate research and teaching positions that will contribute to the progress of the Fellow toward an advanced degree. Fellows are encouraged to determine policies regarding any such required service before enrolling in any particular institution.

After an award is made, a major change in course of study requires prior NSF approval. The availability of the second and third years of a three-year award is contingent upon certification to NSF by the fellowship institution that the Fellow is making satisfactory academic progress toward an advanced degree in the approved field of study.

Stipend and Allowances

The NSF fellowship stipend during 2001-2002 will be \$16,800 for a 12-month tenure, prorated monthly at \$1,400 for lesser periods. There is no dependency allowance. At its discretion, each fellowship institution may supplement a Fellow's stipend from institutional funds in such amounts as are in accordance with the policies of the fellowship institution.

In addition to the funds for stipend payments, the NSF provides the fellowship institution, on behalf of each Fellow, a cost-of-education allowance of \$10,500 per tenure year. During tenure, Fellows at U.S. institutions will be exempt from paying tuition and fees normally charged to students of similar academic standing, unless such charges are optional or are refundable.

At international institutions, all tuition and assessed nonrefundable fees will be paid by the Fellow, with reimbursement by the NSF, up to a maximum of \$10,500 per fellowship year.

A one-time International Research Travel Allowance of \$1,000 is available to Fellows who have arranged to conduct full-time advanced study or research at appropriate international sites for at least three continuous months. The activities must contribute to the Fellow's advanced degree objectives and must be approved by the Fellow's institution. Once a Fellow has begun NSF fellowship tenure, this travel allowance may be used at any appropriate time that travel is initiated within the five-year fellowship period.

Except for supplementation as explained above, a Fellow may not accept simultaneous remuneration from another major fellowship, assistantship, scholarship or similar award. Under Section 178(a) of Title 38, U.S. Code, educational benefits from the Department of Veterans Affairs may be received concurrently with NSF support.

Tenure

New fellowships to be offered in March 2001 will be for maximum tenure periods of three years usable over a five-year period. Recipients may begin fellowship tenure in the summer or fall term. Tenure must be completed before the beginning of the 2006 fall term. Normal tenure for a Fellow is 9 to 12 months for each fellowship year; funds for unutilized months are forfeited. A Fellow may reserve any two years over the five-year period to use an alternative means of support, or to engage in activities other than graduate study. No individual will be eligible for more than three years of NSF Graduate Research Fellowship support.

OTHER OPPORTUNITIES FOR FELLOWSHIP AWARDEES AND HONORABLE MENTION RECIPIENTS

All fellowship awardees and Honorable Mention recipients may apply to use the resources at a Partnership for Advanced Computational Infrastructure (PACI) facility.

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (students and faculty) to work on NSF-supported projects. All fellowship awardees and Honorable Mention recipients who have disabilities may apply for assistance by contacting: FASSED c/o Graduate Research Fellowship Program, National Science Foundation, 4201 Wilson Boulevard - Room 907, Arlington, VA 22230. See the FASSED program announcement or contact the program coordinator at (703) 292-8636. See the FASSED program announcement at <http://www.nsf.gov/cgi-bin/getpub?nsf9154>, or contact the program coordinator at (703) 292-8636.

GUIDELINES FOR APPLYING

Individuals should read carefully this document before attempting to complete any application forms. Inquiries concerning the application process should be directed to Oak Ridge Associated Universities via e-mail or telephone.

All applicants are expected to use NSF's FastLane Graduate Research Fellowship Program (GRFP) process: <http://www.fastlane.nsf.gov>. With Internet access and a supported World Wide Web browser, an applicant can submit an application electronically using this secure process. With information provided by the applicant, references may submit a *Reference Report Form* via FastLane; reference reports may also be submitted via postal mail. Security is provided to ensure that both applications and *Reference Report Forms* can be accessed only by authorized persons.

To access the NSF FastLane GRFP process, click on the Graduate Research Fellowships link on the FastLane Home Page. You will see instructions on how to use the FastLane GRFP process. Applicants should carefully review all information on the FastLane GRFP process for detailed instructions that may not be included in this publication.

For questions concerning the FastLane GRFP process, please contact the FastLane Graduate Research Fellowship support staff at electronic mail: felapp@nsf.gov or phone: 1-800-673-6188.

For individuals who do not have access to the Internet, see the section on 'Application Form Retrieval and Submission' later in these *Guidelines*.

Application Status

In early January 2001, applicants will be informed via e-mail or postal mail of application materials received on their behalf. It is the applicant's responsibility to ensure that all materials are received by ORAU; applicants who do not receive a written notification regarding the status of their application materials by January 15 are encouraged to contact ORAU immediately.

Applicants should consult the ORAU/NSF web site <http://www.ornl.gov/nsf/nsffel.htm> throughout the months following the November deadline for current program information and announcements.

Where to Submit Application Materials

- Applications and *Reference Report Forms* should be submitted electronically using FastLane; other supporting materials should be submitted in hard copy via postal mail or special messenger or delivery.

Application materials are not accepted via fax or electronic mail.

- Mailing address:
NSF Graduate Research Fellowship Program
Oak Ridge Associated Universities
P.O. Box 3010
Oak Ridge, TN 37831-3010
- Overnight delivery or courier address:
NSF Graduate Research Fellowship Program
Oak Ridge Associated Universities
702 South Illinois Avenue, Suite B-102
Oak Ridge, TN 37830

DEADLINES

Application Materials

A complete application consists of all the materials listed below, including GRE General and Subject Tests scores. An incomplete application is at a disadvantage in the competition and may not be evaluated.

- November 7, 2000–Submission Deadline
Information Form
Application Form
Proposed Plan of Research Form
Previous Research Experience Form

The application materials listed above must be submitted via FastLane by 5:00 p.m. in the applicant's local time zone. [For individuals who do not have access to the Internet, see the section on 'Application Forms Retrieval and Submission' later in these *Guidelines*.]

Undergraduate GPA Forms and transcripts should be submitted in hard copy.

- November 7, 2000 – Submission Date
Undergraduate GPA Form
Official Academic Transcripts (excluding fall 2000)
Note that above items may be mailed in the same envelope.
- December 7, 2000 – Submission Date
Reference Report Forms (four are expected)

Requests for Reactivation of Official Academic Transcripts

- November 7, 2000 – Submission date for requests for reactivation of Official Academic Transcripts.

To request reactivation of Official Academic Transcripts from the 2000 fellowship competition, send electronic mail to nsfgrfp@ora.gov by November 7, 2000.

Graduate Record Examinations

All applicants are expected to take the GRE General Test (Verbal, Quantitative, and Analytical). In addition, all applicants should take a GRE Subject Test in the science, mathematics, or engineering field most closely related to their chosen area of graduate study. Further information concerning payment of GRE registration fees and score reporting for fellowship evaluation purposes is included in the application materials. Registration forms and information concerning the GRE are available from four-year colleges, universities, or the Educational Testing Service (ETS), P.O. Box 6000, Princeton, New Jersey 08541-6000, telephone (609) 771-7670, fax (609) 771-7906 or Internet <http://www.gre.org>.

- November 3, 2000 - Receipt date for GRE Registration Forms at the ETS for NSF applicants for the December 9, 2000 Subject Test.
- December 9, 2000 - Last date for GRE Subject Test for NSF applicants.
- December 30, 2000 - Last date for GRE General Test for NSF applicants.

Application Forms Retrieval and Submission

For individuals who do not have access to the Internet and NSF's FastLane system, application forms may be retrieved using the following methods. Note that applications submitted via postal mail must be postmarked or delivered in person to ORAU by November 7, 2000. Applications postmarked or submitted later than November 7, 2000 will not be considered for review.

- a. NSF Web Site: <http://www.nsf.gov/grfp>

Via the Internet, you can download the application forms as either a PDF printable blank form or a Microsoft Word 97 (or newer version) on-line form. To view the PDF forms you must have the Adobe Viewer installed, which is a free product and can be downloaded at this site. If your browser does not automatically launch the Microsoft Word 97 on-line form, a message will appear to prompt you to save the Word file to a local disk drive.

- b. Information via E-Mail: You can have the *Guidelines for Submission of Applications* and application forms sent to you via electronic mail. Each application form is available in two versions: a PDF printable blank form and a Microsoft Word 97 (or newer version) on-line form.

Send an electronic mail message to: getpub@nsf.gov

Leave the subject line blank. In the body of the message enter:

get nsf00128 (for *Guidelines for Submission of Applications*)

get fmgfkitp.txt (for instructions to access the PDF files)

get fmgfkitp.pdf (for the PDF Application Forms Kit)

get fmgfkitd.txt (for instructions to access the Word 97 files)

get fmgfkitd.doc (for the Word 97 Forms Kit)

- c. Printed application forms may be obtained by direct request from:

NSF Graduate Research Fellowship Program
Oak Ridge Associated Universities
P.O. Box 3010, Oak Ridge, TN 37831-3010
or telephone (865) 241-4300
or fax (865) 241-4513
or Internet electronic mail to: nsfgrfp@orau.gov

INSTRUCTIONS FOR COMPLETING A FELLOWSHIP APPLICATION

Instructions for completing all forms are provided in the following sections.

The information requested on the application materials is solicited pursuant to the National Science Foundation Act of 1950, as amended. All of the information you supply will be used to determine eligibility, to correlate application materials, to assist reviewers in evaluating qualifications of applicants, to select NSF Fellows and to administer the NSF fellowships. This information will not be disclosed for any other purpose, except as part of statistical reports in a form which would not allow identification of individual applicants. Failure to provide full and complete information necessary for eligibility determination or for evaluation of qualifications may reduce the possibility of your receiving a fellowship award.

Inventory List:

Use this sheet when submitting your NSF Graduate Research Fellowship application materials via postal mail. List the materials and page count on the form as indicated.

Information Form (NSF Form 289):

1. **Social Security number.**
2. **Former last name** (any last name used previously). This will facilitate retrieval of your GRE scores.
3. **List your complete permanent address.** Check if the address is U.S. (including Puerto Rico, Guam, American Samoa, U.S. Virgin Islands and the Northern Mariana Islands) or international. Do not use APO or FPO addresses, college department addresses, or abbreviated names of streets or cities.
4. **The mailing address** will be used to notify you of the outcome of this year's competition. Check if the address is U.S. (including Puerto Rico, Guam, American Samoa, U.S. Virgin Islands and the Northern Mariana Islands) or international. Notify ORAU immediately of any change in mailing address.
5. **List one telephone number (daytime) and one e-mail address.** The e-mail address will be used to notify you of application materials received on your behalf, of eligibility concerns, and for other correspondence through February 2001. It is your responsibility to ensure the accuracy and currency of this information. Notify ORAU immediately of any change in e-mail address.

6. **Date of birth, place of birth, and gender.**
7. **List the city and state or country of the high school from which you graduated.** Check if the location is U.S. (including Puerto Rico, Guam, American Samoa, U.S. Virgin Islands and the Northern Mariana Islands) or international. If you received a high school equivalency certificate rather than a diploma, indicate the name of the state through which it was granted.
8. **Use the following descriptions to select your groups.**
Ethnicity Definition: Hispanic or Latino. A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.
Race Definitions: American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment. Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. Black or African American. A person having origins in any of the black racial groups of Africa. Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
9. **All applicants must be citizens or nationals of the United States, or permanent resident aliens of the United States at the time of application.** If you are a permanent resident alien, enter the date your permanent resident status was granted and your alien registration number. Indicate country of citizenship if not U.S.
10. **Indicate if you have a disability that limits a major life activity.**
11. **In addition to announcing awards, NSF also publishes the names of applicants who qualify for honorable mention designation.** Honorable Mention in the NSF Graduate Research Fellowship Program is considered a significant achievement nationwide. Failure to respond to this question will be treated as a negative response.
12. **The lists of awardees and honorable mention recipients that NSF publishes are frequently used by universities to recruit graduate students.** To assist those universities in contacting individuals on the lists, NSF publishes mailing addresses. Failure to respond to this question will be treated as a negative response.
13. **If applying via postal mail, respond to this question regarding FastLane.**

Application Form (NSF Form 289):

1. **Major field of specialization:** Select only one major field. Reference the "NSF Supported Fields of Specialization" list in the back of these *Guidelines*.
2. **Specialized field(s) within major field:** From the "NSF Supported Fields of Specialization" list, select your proposed field and enter the code number and name on the designated line. If your field is not

- specified, list the appropriate “other” code number and enter the name of your specialized field.
3. **Multidisciplinary programs:** If your graduate program is multidisciplinary, indicate your primary field of study and the percent of effort in your overall program. Likewise, indicate your other or secondary fields and the percent of effort. Refer to the “NSF Supported Fields of Specialization” list. If a field is not contained in this list, please list the field and the percent of effort.
 4. **Degree goal:** Enter the name of the highest level degree toward which you expect to work while on your proposed fellowship tenure and the field. For example, if two years of your fellowship tenure will be spent earning a master’s degree and one year of your tenure in a PhD program, list the PhD as your ultimate degree goal.
 5. **Proposed graduate institution:** Indicate your first choice of a graduate institution. Reviewers consider the appropriateness of the choice in reviewing your application. You need not have been accepted at this institution before listing its name. If, after submitting the application, you decide to change the institution you wish to attend, notify ORAU immediately in writing. Also list your proposed department within the institution, the city where the institution is located, and the state or country. Do not abbreviate.
 6. **Baccalaureate institution:** List the institution from which you will receive or have received your bachelor’s degree. If you have or will have more than one bachelor’s degree, list the institution of your most recent science or engineering degree; if no science or engineering degree, list the institution of your most recent bachelor’s degree. Also list the degree, the year of completion, the city where the institution is located, and the state or country.
 7. **Colleges or universities attended:** Starting with the current or most recent college/university (including its location), indicate the beginning and ending dates of attendance, degree awarded or expected and date, and the major field of study. For dates, use the “mm/yyyy” format.
 8. **Current enrollment:** If currently enrolled in a college or university, indicate whether full-time or part-time. Also indicate the level (undergraduate, graduate, or unclassified postbaccalaureate). Indicate the institution where you are currently enrolled along with the city and state or country. If you are not currently enrolled, indicate your present occupation or profession.
 9. **Five-year Program:** Indicate if you are enrolled in a five-year joint baccalaureate-master’s degree program.
Four-year Program: Indicate if you are enrolled in a four-year joint baccalaureate-master’s degree program.
 10. **Completed graduate study in science, mathematics, or engineering since receipt of your bachelor’s degree:** List the institution, department, dates attended, and number of graduate hours (including course work, research, seminars, and independent study) completed since receipt of your bachelor’s degree. Include only study in fields supported by this program. For the dates, use the “mm/yyyy” format.
 11. **Information regarding the GRE test(s)** you took or plan to take will facilitate reporting of your scores by ETS for purposes of evaluation in this program. (See *GRE Information Sheet*.) Indicate whether you have or have not taken the GRE General Test and indicate the date on which you took or plan to take the test. Indicate whether you have or have not taken a GRE Subject Test, provide the date on which you took or plan to take the test and the field. For the dates, use the “mm/yyyy” format.
 12. **Individuals chosen to submit Reference Report Forms:** Choose faculty members, scientists, or engineers whose knowledge of your academic and/or professional experience and ability is current. See “Reference Report Form” later in these instructions for further information.
 13. **List your native language.**
 14. **List all fellowships, scholarships, teaching, and other positions** relevant to your field held since entering college/university. Begin with the most recent position/scholarship.
 15. **List all academic honors** you have received relevant to your major field of study.
 16. **Describe your personal or educational experiences** in 1000 words or less. Applicants who have completed more than one year of full-time graduate study (or the equivalent in part-time study) should explain the circumstances that they believe qualify them for being considered to be in the early stages of their graduate program. Type single-spaced using 10-point font size or larger.
 17. **Describe your experiences integrating research and education, advancing diversity in science, and contributing to your community, both scholarly and social** in 1000 words or less. Type single-spaced using 10-point font size or larger.
- Proposed Plan of Research Form (NSF Form 306):**
In a clear, concise, and original statement, describe any research interests you may pursue while on fellowship tenure. Your statement should demonstrate your understanding of research principles necessary to pursue these interests. Present your plan with a clear hypothesis or questions to be asked by the research. If you have not yet formulated a plan of research, your statement should include (1) a description of two or three research questions that interest you, with an explanation of the relationship to your previous research, if any, and (2) an analysis of how you think these questions may best be answered. A listing of courses alone is not sufficient. Research topics discussed in your proposed plan may be used in determining eligibility. Type single-spaced using 10-point font size or larger. There is a 2-page limit.
- Previous Research Experience Form (NSF Form 1259):**
Describe any scientific research activities in which you have participated, such as experience in undergraduate research programs or student-originated studies programs, research experience gained through summer or part-time employment or in work-study programs, or other research activities, either academic or job-related. Explain the rationale for your work and your specific role in the research, including the extent to which you worked independently and/or as part of a team. In your statement, distinguish between undergraduate and graduate research experience. If you have had no direct research experience, describe any activities that you believe have prepared you to under-

take research. At the end of your statement, list any publications and/or presentations made at national and/or regional professional meetings. Type single-spaced using 10-point font size or larger. There is a 2-page limit.

Undergraduate GPA Form (NSFForm314):

Complete the applicant's portion of the *Undergraduate GPA (Grade Point Average) Form* and submit it to the Registrar of the institution you listed in Question 6 of the *Application Form*.

Transcript Request Form (NSFForm316):

You must submit complete **official** transcripts of your academic records, undergraduate and graduate, excluding fall 2000, by the postmark or submission date. Only one copy of each transcript is required. Duplicate the *Transcript Request Form* as required and submit to all appropriate Registrars.

You should submit a fall 2000 transcript or grade report as soon as it is available.

Reference Report Form (NSFForm299):

You are expected to submit four (4) *Reference Report Forms*. Scientists or faculty members who have current knowledge of your academic and/or professional experience and ability should be selected as references, since they will be able to give meaningful answers to the questions asked. NSF suggests that at least two of the four should be persons with whom you have worked in your present (or most recent) department, including the thesis adviser if possible.

If you submit your application via FastLane, references may send *Reference Report Forms* either via FastLane, if you provide your reference code, or via postal mail. *Reference Report Forms* submitted to ORAU directly by the reference must be submitted or postmarked by December 7, 2000.

If you have applied before and find it necessary to use some of the same people as references, request that the references prepare new reports. In most cases they will be able to provide additional and more up-to-date information concerning your ability and training. *Reference Report Forms* submitted for a prior year's application cannot be transferred to a current application.

Only the NSF *Reference Report Form* should be used for an NSF Graduate Research Fellowship application. The student reference statements on file at colleges and universities will not be accepted in lieu of the NSF *Reference Report Form*.

Graduate Record Examinations (GRE):

See the *GRE Information Sheet* for further information concerning the GRE.

Self-Addressed Stamped Postcard:

If you submit an application via postal mail, and wish to be notified that your application packet has been received, include a self-addressed stamped postcard (3½" x 5½" minimum) with the initial packet. Please note that postcards without an address or without postage will not be returned.

IMPORTANT POINTS:

- Observe the deadlines.
- Submit electronic applications early to avoid possible system delays.
- Submit only one application. Do not submit duplicate applications via FastLane and postal mail.
- Retain a copy of all application materials submitted. Material submitted in support of an application will not be returned.
- Obtain a Certificate of Mailing from the post office, or a receipt from the special delivery service, for all application materials mailed.
- Type all application information in no smaller than 10-point font size. Leave adequate margins and space between paragraphs.
- Observe the indicated page limits.
- Do not reformat the application materials. Do not use application materials from a previous year, or from other programs.
- Do not submit off-prints, manuscripts, video tapes, slides, photographs, or other extraneous materials.
- Put your name and Social Security number on all attachments and additional sheets.
- Applicants should submit all application materials in one large envelope if submitting via postal mail. Indicate "application" on the outside of the envelope.
- If any application materials are submitted separately, indicate the contents on the outside of each envelope.
- Clearly label any replacement application materials with your name and Social Security number, and indicate the document that is being replaced.

NATIONAL SCIENCE FOUNDATION GRADUATE RESEARCH FELLOWSHIPS

NSF Supported Fields of Specialization

CHEMISTRY

5230 Analytical
5250 Bio-inorganic
5240 Bio-organic
5260 Biophysical
9994 Environmental
5290 Inorganic
5330 Organic
5350 Physical
5331 Polymer
5370 Theoretical
5399 Chemistry, other (specify)

COMPUTER AND INFORMATION SCIENCE AND ENGINEERING (CISE)

7240 Artificial Intelligence
(including Robotics and Expert Systems)
7210 Computer Science - Languages and Systems
7200 Computer Science - Theory
7270 Computer Systems Design
(including Signal Processing)
7230 Database Systems
7261 Graphics
7260 Human Computer Interaction
7250 Information Technology and Organizations
7290 Networks and Communications
7280 Scientific Computing
7220 Software Engineering
7299 CISE, other (specify)

ENGINEERING

6210 Aeronautical and Aerospace
6240 Agricultural
6250 Bioengineering and Biomedical
6330 Chemical
6350 Civil
6388 Computer Engineering
6390 Electrical and Electronic
6741 Energy
6470 Engineering Mechanics
6532 Engineering Science
9996 Environmental
6580 Industrial
6476 Materials
6620 Mechanical
6660 Metallurgical
6740 Nuclear
6245 Ocean
6716 Petroleum
6480 Polymer
6585 Systems Engineering
6799 Engineering, other (specify)

GEOSCIENCES

5710 Aeronomy
5720 Atmospheric Chemistry
5750 Chemical Oceanography
5770 Climate Dynamics
5740 Geochemistry
5780 Geology
5800 Geophysics
5810 Hydrologic Sciences
5820 Large-scale Dynamics Meteorology
5830 Magnetospheric Physics
5840 Marine Geology and Geophysics
5850 Mesoscale Dynamic Meteorology
5870 Paleoclimate
5860 Paleontology
5880 Physical Meteorology
7799 Physical Oceanography
5890 Solar-Terrestrial
5889 Geosciences, other (specify)

LIFE SCIENCES

0399 Agriculture⁴
0140 Agronomy⁴
4510 Anatomy⁴
4530 Animal Behavior
4531 Animal Science⁴
0999 Biochemistry⁴
1870 Biological Oceanography
1899 Biology
1299 Biophysics
1599 Botany (including Plant Physiology)
1820 Cell Biology⁴
1860 Computational Biology
1840 Developmental Biology
1830 Ecology
4570 Entomology
9992 Environmental Sciences
1850 Evolutionary Biology
4590 Fish and Wildlife
0250 Forestry
2499 Genetics⁴
0300 Horticulture
3293 Immunology⁴
1874 Marine Biology
3299 Microbiology⁴
1880 Molecular Biology⁴
1829 Neurosciences⁴
1890 Nutrition⁴
2970 Pharmacology⁴
3899 Physiology⁴
1545 Plant Pathology
4540 Soil Science

⁴ Warning: Research with disease-related goals is not eligible for support by NSF. Applicants in this field will not be included in the competition if their Proposed Plan of Research has disease-related goals and/or is insufficiently focused on basic research questions.

LIFE SCIENCES (continued)

| | |
|------|---|
| 1822 | Structural Biology |
| 3290 | Virology ⁴ |
| 4699 | Zoology |
| 2299 | Life Sciences, other (specify) ⁴ |

MATHEMATICAL SCIENCES

| | |
|------|---|
| 7010 | Algebra or Number Theory |
| 7030 | Analysis |
| 7050 | Applications of Mathematics (including Biometrics and Biostatistics) |
| 7110 | Geometry |
| 7130 | Logic or Foundations of Mathematics |
| 7140 | Operations Research |
| 7150 | Probability and Statistics |
| 7170 | Topology |
| 7199 | Mathematics, other (specify) |

PHYSICS AND ASTRONOMY

| | |
|------|--------------------------|
| 4999 | Astronomy |
| 4930 | Astrophysics |
| 8040 | Atomic and Molecular |
| 8050 | Condensed Matter Physics |
| 8160 | Nuclear |
| 8180 | Optics |
| 8110 | Particle Physics |
| 8200 | Physics of Fluids |
| 8210 | Plasma |
| 8220 | Solid State |
| 8260 | Theoretical Physics |
| 8299 | Physics, other (specify) |

PSYCHOLOGY

| | |
|------|--|
| 4125 | Cognitive |
| 4120 | Cognitive Neuroscience |
| 4130 | Developmental |
| 4150 | Experimental or Comparative |
| 4189 | Industrial/Organizational |
| 4155 | Neuropsychology |
| 4165 | Perception and Psychophysics |
| 4170 | Personality and Individual Differences |
| 4158 | Physiological |
| 4162 | Quantitative |
| 4190 | Social |
| 4199 | Psychology, other (specify) ⁵ |

SOCIAL SCIENCES

| | |
|------|---|
| 0693 | Biological Anthropology |
| 0695 | Cultural Anthropology |
| 0694 | Linguistic Anthropology |
| 0696 | Medical Anthropology |
| 0697 | Physical Anthropology |
| 0699 | Anthropology, other (specify) |
| 0610 | Archaeology |
| 9818 | Demography |
| 8599 | Economics (Business Administration not eligible) |
| 8799 | Geography (other than Physical) |
| 9099 | History of Science |
| 9499 | International Relations ⁶ |
| 9299 | Linguistics |
| 9098 | Philosophy of Science |
| 9399 | Political Science |
| 9799 | Public Policy ⁶ |
| 9599 | Sociology (Social Work not eligible) |
| 9699 | Urban and Regional Planning ⁶ |
| 9899 | Social Sciences, other (specify) |

Note: For further clarification of research areas supported by the NSF, see the *National Science Foundation Guide to Programs* (<http://www.nsf.gov/cgi-bin/getpub?nsf0065>).

⁵ Warning: Clinical and counseling psychology are generally not supported in this program; some applicants in this field are judged ineligible because their Proposed Plan of Research focuses on mental disease, abnormality or malfunction.

⁶ Warning: Fellowships are awarded only for study leading to research-based master's or doctoral degrees. Practice-oriented master's programs are not eligible for support in this program. PhD programs must be science-based.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Awardees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

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Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the program announcement or contact the program coordinator at (703)292-8636.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Relay Service (FRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation regarding NSF programs, employment, or general information. TDD may be accessed at (703) 292-5090 or through FRS on 1-800-877-8339.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on the application materials is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified applicants and may be disclosed to qualified reviewers and staff assistants as part of the review process; to the institution the nominee, applicant or fellow is attending or is planning to attend or is employed by for the purpose of facilitating review or award decisions, or administering fellowships or awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing data regarding applicants or nominees as part of the proposal review process, or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information from this system may be merged with other computer files to carry out statistical studies the results of which do not identify individuals. Notice of the agency's decision may be given to nominators, and disclosure may be made of awardees' names, home institutions, and fields of study for public information purposes. For fellows or awardees receiving stipends directly from the government, information is transmitted to the Department of the Treasury to make payments. See System of Records, NSF-12, "Fellowships and Other Awards," 63 Federal Register 265 (January 5, 1998). Submission of the information is voluntary; however, failure to provide full and complete information may reduce the possibility of your receiving an award.

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