NSF 25-547: NSF Graduate Research Fellowship Program (GRFP)

Program Solicitation

Document Information

Document History

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U.S. National Science Foundation

Directorate for Biological Sciences

Directorate for Computer and Information Science and Engineering

Directorate for STEM Education

Division of Graduate Education

Directorate for Engineering

Directorate for Geosciences

Directorate for Mathematical and Physical Sciences

Directorate for Social, Behavioral and Economic Sciences

Directorate for Technology, Innovation and Partnerships

Office of Integrative Activities

Office of International Science and Engineering

Application Deadline(s) (received by 5 p.m. local time of applicant's mailing address):

November 10, 2025

Life Sciences

November 12, 2025

Computer and Information Science and Engineering; Materials Research; Psychology; Social, Behavioral and Economic Sciences; STEM Education and Learning

November 13, 2025

Engineering

November 14, 2025

Chemistry; Geosciences; Mathematical Sciences; Physics and Astronomy

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Important Information And Revision Notes

- 1. This solicitation covers the Fiscal Year (FY) 2026 competition.
- 2. Applications must be prepared and submitted through Research.gov/GRFP (https://www.research.gov/grfp/Login.do). Only materials submitted through Research.gov/GRFP will be accepted. Application preparation instructions have been revised and should be read carefully.
- 3. Eligibility criteria have been revised. Applicants should thoroughly review the Detailed Eligibility Requirements in Section IV.
- 4. Applications are due by **5:00 p.m.** local time of the applicant's mailing address on the deadline date specified for the field of study selected in the application.
- 5. Only official academic transcripts with the applicant's most recent academic status will be accepted.
- 6. While fellowships will be supported in all NSF-eligible research areas, NSF will continue to emphasize high priority research areas in alignment with Administration priorities as stated in <u>A Letter to Michael Kratsios</u>, <u>Director of the</u>

<u>White House Office of Science and Technology Policy – The White House</u> and detailed in the <u>FY 2026 NSF Budget Request</u> to <u>Congress</u>. These high priority research areas are included in the Appendix of this solicitation.

- 7. Reference letters are due Friday, November 7 at 5:00 p.m. Eastern Time (ET); 4:00 p.m. Central Time; 3:00 p.m. Mountain Time; 2:00 p.m. Pacific Time; 12:00 noon Hawaii Time; or time corresponding to 5:00 p.m. Eastern Time in all other time zones. Reference letters must be submitted through the NSF Reference Letter System in (https://www.research.gov/grfp/Login.do).
- 8. Applicants and reference letter writers requiring accessibility accommodation are asked to notify the GRF Operations Center at least three weeks before the relevant deadline to coordinate assistance for submitting the application or reference letter.

Summary Of Program Requirements

General Information

Program Title:

NSF Graduate Research Fellowship Program (GRFP)

Synopsis of Program:

The purpose of the NSF Graduate Research Fellowship Program (GRFP) is to help ensure the quality, vitality, and strength of the scientific and engineering workforce of the United States. Since 1952, the program recognizes and supports outstanding graduate students who are pursuing full-time research-based master's and doctoral degrees in science, technology, engineering, and mathematics (STEM) fields, including STEM education. NSF GRFP was established to recruit and support individuals who demonstrate the potential to make significant contributions in STEM, including STEM education. NSF encourages applications from the full spectrum of talent that the U.S. has to offer.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

• Graduate Research Fellowship Program, GRFP, telephone: (703)292-8630, email: <u>grfp@nsf.gov</u>

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.041 --- Engineering
- 47.049 --- Mathematical and Physical Sciences
- 47.050 --- Geosciences
- 47.070 --- Computer and Information Science and Engineering
- 47.074 --- Biological Sciences
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- STEM Education
- 47.079 --- Office of International Science and Engineering
- 47.083 --- Office of Integrative Activities (OIA)
- 47.084 --- NSF Technology, Innovation and Partnerships

Award Information

Anticipated Type of Award: Fellowship

Estimated Number of Awards:

NSF will support new Graduate Research Fellowships under this program solicitation pending availability of funds.

Anticipated Funding Amount: \$159,000

Per award (Fellowship), pending the availability of funds.

Each fellowship provides three years of support over a five-year fellowship period. For each of the three years of support, NSF provides a \$37,000 stipend and \$16,000 Cost of Education allowance payment to cover all tuition and mandatory fees to the graduate degree-granting institution of higher education for each fellow who uses the support in a fellowship year. The fellowship is portable and can be transferred to a different institution of higher education if a fellow chooses to transfer to another institution after completion of the first fellowship year. While the fellowship is offered to the individual, the fellowship funds are awarded to the institution of higher education at which a fellow is enrolled, and the institution is responsible for disbursement of the stipend to the fellow.

Eligibility Information

Applicant Eligibility:

Applicants should carefully and thoroughly review the Detailed Eligibility Requirements in Section IV for full information.

Eligibility to apply and receive support from this program is restricted to individuals who meet the following criteria at the time of application and acceptance if offered a fellowship:

- Must, at the time of submission, be a U.S. citizen, national, or a permanent resident ("green-card" holder)
- Must intend to enroll or be enrolled in an eligible research-based master's or doctoral degree program in an eligible field of study in STEM, including STEM education (See Appendix and Section IV.3 for eligible Fields of Study);
- Never have previously accepted a Graduate Research Fellowship;
- Have declined any previously offered Graduate Research Fellowship by the declination deadline (if applicable);
- Have completed less than one academic year in a graduate degree program (according to the institution's academic calendar; non-degree coursework must be clearly identified in the transcript and does not count toward this limit).

This means individuals in the following statuses at the time of application are eligible:

- Undergraduate in the final (senior) year of a bachelor's degree program
- Bachelor's degree-holder with NO enrollment in a graduate degree program (nondegree graduate coursework allowed)
- Individual enrolled in a joint bachelor's-master's degree program with at least three undergraduate years completed
- **First-year** graduate student in their **first** graduate degree program with **less than** one academic year completed in the degree program (according to institution's academic calendar)
 - Individuals enrolled in joint bachelor's-master's degree programs are considered graduate students. For GRFP, joint bachelor's-master's degrees are defined as degrees concurrently pursued and awarded.

• Not be a current NSF employee.

Applications that do not meet eligibility requirements will be returned without review as being ineligible for a fellowship.

By signing and submitting the application, the applicant certifies meeting the eligibility criteria specified in this program solicitation. Willful provision of false information in this request and its supporting documents or in reports required under an ensuing award is a criminal offense (U.S. Code, Title 18, Section 1001).

Number of Times an Individual May Apply

- Undergraduate seniors in bachelor's degree programs and bachelor's degree
 holders with no prior enrollment in a graduate degree program have no
 restrictions on the number of times they can apply before enrolling in a graduate
 degree-granting program.
- Individuals enrolled in joint bachelor's-master's degree programs are considered graduate students and can apply only once.
- Individuals enrolled in graduate degree programs can apply only once, in the first year of their first graduate program.

Limit on Number of Applications per Applicant: 1

An eligible applicant may submit only one application per annual competition.

Additional Eligibility Info:

Eligibility is based on the applicant's status at the application deadline, and at the time of acceptance if offered a Fellowship.

Limit on Number of Applications per Applicant: 1

An eligible applicant may submit only one application per annual competition.

Application Preparation and Submission Instructions

A. Application Preparation Instructions

- Letters of Intent: Not applicable
- Preliminary Proposal Submission: Not applicable
- **Application Instructions:** This solicitation contains information that deviates from the standard NSF *Proposal and Award Policies and Procedures Guide* (PAPPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

• Cost Sharing Requirements:

Inclusion of voluntary committed cost sharing is prohibited.

• Indirect Cost (F&A) Limitations:

No indirect costs are allowed.

• Other Budgetary Limitations:

Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

• **Application Deadline(s)** (received by 5 p.m. local time of applicant's mailing address):

November 10, 2025

Life Sciences

November 12, 2025

Computer and Information Science and Engineering; Materials Research; Psychology; Social, Behavioral and Economic Sciences; STEM Education and Learning

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Engineering

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Chemistry; Geosciences; Mathematical Sciences; Physics and Astronomy

Application Review Information Criteria

Merit Review Criteria:

National Science Board approved Merit Review Criteria (Intellectual Merit and Broader Impacts) apply. Additional Solicitation-Specific Review Criteria also apply (see Section VI.A below).

Award Administration Information

Award Conditions:

NSF GRFP awards are made to the institution of higher education at which a Fellow is or will be enrolled. The awardee institution is responsible for financial management of the award and disbursement of Fellowship funds to the individual Fellow. The institution will administer the awards, including any amendments, in accordance with the terms of the Agreement and provisions (and any subsequent amendments) contained in the document *NSF Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials*. All Fellowship Program Administrative Guide for Fellows and Coordinating Officials.

Reporting Requirements:

See reporting requirements in full text of solicitation and the *NSF Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials*. Fellows are required to submit annual activity reports and to declare fellowship status by the deadline specified in the notification sent by email each year. Additional reporting requirements are presented in Section VII.C of this solicitation.

I. Introduction

The Graduate Research Fellowship Program (GRFP) is a U.S. National Science Foundation-wide program that provides Fellowships to individuals selected early in their graduate careers based on their demonstrated potential for significant research achievements in science, technology, engineering or mathematics (STEM) or in STEM education. Three years of support over a five-year period are provided for graduate study that leads to a research-based master's or doctoral degree in STEM or STEM education (see eligible Fields of Study in Appendix).

The program goals are: (1) to select, recognize, and financially support early-career individuals with the demonstrated potential to be high achieving scientists and engineers; and (2) to increase participation in science and engineering of the full spectrum of U.S. talent.

NSF GRFP is a critical program in NSF's overall strategy to develop the globally competitive workforce necessary to ensure the Nation's leadership in advancing science and engineering research and innovation. The ranks of NSF Fellows include numerous individuals who have made transformative breakthrough discoveries in science and engineering, become leaders in their chosen careers, and have been honored as Nobel laureates.

For FY2026, NSF GRFP will refocus on its original statutory and programmatic intent to affect students at the beginning of their STEM graduate training and to award fellowships "to the applicants in such a manner as will tend to result in a wide distribution of scholarships and fellowships throughout the United States." 42 USC §1869(a). To achieve this goal, NSF GRFP will focus on the discovery and recruitment of individuals who demonstrate outstanding potential in STEM graduate study and will accept applications from undergraduate seniors in bachelor's degree programs, bachelor's degree-holders with no prior enrollment in any graduate degree program, individuals enrolled in joint bachelor's-master's degree programs, and first-year graduate students in their first graduate degree program.

To increase awareness of NSF GRFP's return to its original focus, outreach activities will be offered to the broadest swath of potential applicant communities. Multiple virtual outreach events, open to all potential applicants, will be offered. Other outreach and engagement activities also will be offered at conferences and scientific society meetings.

II. Program Description

NSF GRFP awards Fellowships for graduate study leading to research-based master's and doctoral degrees in STEM or in STEM education. GRFP supports individuals proposing a comprehensive plan for graduate education that takes individual interests and competencies into consideration. The plan describes the academic achievements, attributes, and experiences that illustrate the applicant's demonstrated potential for significant research achievements. The applicant must provide a detailed profile of their relevant education, research experience, and plans for graduate education that demonstrates this potential.

Prospective applicants are advised that submission of an application indicates their intent to pursue graduate study in a research-based program in STEM, including STEM education, at an accredited, non-profit institution of higher education having a campus located in the United States, its territories or possessions, or the Commonwealth of Puerto Rico. All applicants are expected to have adequate preparation to enroll in a research-based master's or doctoral program by fall of the year the Fellowship is accepted. From the date of the Fellowship Start through Completion or Termination of the Fellowship, applicants accepting the award (Fellows) must be enrolled in an accredited graduate degree-granting institution of higher education having a campus located in the United States, its territories or possessions, or the Commonwealth of Puerto Rico.

In Fiscal Year (FY) 2026, NSF will continue to fund Graduate Research Fellowships in all areas of science and engineering supported by NSF while emphasizing high-priority research areas in alignment with the Administration priorities described in <u>A Letter to Michael Kratsios</u>, <u>Director of the White House Office of Science and Technology Policy – The White House</u> and detailed in the <u>FY 2026 NSF Budget Request to Congress</u>. The high priority research areas are listed under the Major Fields of Study in Appendix 1. Applications are encouraged in all disciplines supported by NSF.

III. Award Information

NSF will support new Graduate Research Fellowships under this program solicitation pending availability of funds.

Fellowship funding will be for a maximum of three years of financial support (in 12-month allocations starting fall of the award year) usable over a five-year fellowship period. The anticipated announcement for the fellowship awards is early April each year.

The fellowship is portable and can be transferred to a different institution of higher education if a fellow chooses to transfer to another institution after completion of the first fellowship year. While the fellowship is offered to the individual, the fellowship funds are awarded to the institution at which a fellow is enrolled and is considered the official NSF awardee institution. The awardee institution receives up to a \$53,000 award per fellow who uses the support in a fellowship year. The awardee institution is responsible for disbursement of fellowship funds to the Fellow. The Graduate

Research Fellowship stipend is \$37,000 for a 12-month tenure period, disbursed according to the awardee institution's disbursement schedule. The Cost of Education allowance provides payment in lieu of tuition and mandatory fees to the institution of \$16,000 per year of fellowship support.

During receipt of the fellowship support, the institution is required to exempt Fellows from paying tuition and fees normally charged to students of similar academic standing, unless such charges are optional or are refundable (i.e., the institution is responsible for tuition and required fees in excess of the Cost of Education allowance). Acceptance of fellowship funds by the awardee institution indicates acceptance of and adherence to these and other terms and conditions of the NSF GRFP award as indicated in the <u>NSF Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials</u>.

NSF GRFP awards are eligible for supplemental funding as described in Chapter VI of the NSF Proposal & Award Policies & Procedures Guide (PAPPG).

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects as described in Chapter II.F of the PAPPG. Fellows with disabilities may apply for assistance after consulting the instructions in the document NSF Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials.

Career-Life Balance Supplemental Funding Requests (as described in the <u>PAPPG</u>) can be requested by the awardee institution to provide additional personnel (e.g., technician) to sustain the research of Fellows on approved medical leave due to family leave situations as indicated in Chapter II.F of the PAPPG.

Honorable Mention

The NSF accords Honorable Mention to meritorious applicants who do not receive fellowship offers. This is considered a significant national academic achievement.

IV. Eligibility Information

Applicant Eligibility:

Applicants should carefully and thoroughly review the Detailed Eligibility Requirements in Section IV for full information.

Eligibility to apply and receive support from this program is restricted to individuals who meet the following criteria at the time of application and acceptance if offered a fellowship:

- Must, at the time of submission, be a U.S. citizen, national, or a permanent resident ("green-card" holder)
- Must intend to enroll or be enrolled in an eligible research-based master's or doctoral degree program in an eligible field of study in STEM, including STEM education (See Appendix and Section IV.3 for eligible Fields of Study);
- Never have previously accepted a Graduate Research Fellowship;
- Have declined any previously offered Graduate Research Fellowship by the declination deadline (if applicable);
- Have completed less than one academic year in a graduate degree program (according to the institution's academic calendar; non-degree coursework must be clearly identified in the transcript and does not count toward this limit).

This means individuals in the following statuses at the time of application are eligible:

- Undergraduate in the final (senior) year of a bachelor's degree program
- Bachelor's degree-holder with NO enrollment in a graduate degree program (nondegree graduate coursework allowed)
- Individual enrolled in a joint bachelor's-master's degree program with at least three undergraduate years completed
- **First-year** graduate student in their **first** graduate degree program with **less than** one academic year completed in the degree program (according to institution's academic calendar)
 - Individuals enrolled in joint bachelor's-master's degree programs are considered graduate students. For GRFP, joint bachelor's-master's degrees are defined as degrees concurrently pursued and awarded.
 - Not be a current NSF employee.

Applications that do not meet eligibility requirements will be returned without review as being ineligible for a fellowship.

By signing and submitting the application, the applicant certifies meeting the eligibility criteria specified in this program solicitation. Willful provision of false information in this request and its supporting documents or in reports required under an ensuing award is a criminal offense (U.S. Code, Title 18, Section 1001).

Number of Times an Individual May Apply

- Undergraduate seniors in bachelor's degree programs and bachelor's degree
 holders with no prior enrollment in a graduate degree program have no
 restrictions on the number of times they can apply before enrolling in a graduate
 degree-granting program.
- Individuals enrolled in joint bachelor's-master's degree programs are considered graduate students and can apply only once.
- Individuals enrolled in graduate degree programs can apply only once, in the first year of their first graduate program.

Limit on Number of Applications per Applicant: 1

An eligible applicant may submit only one application per annual competition.

Additional Eligibility Info:

Eligibility is based on the applicant's status at the application deadline, and at the time of acceptance if offered a Fellowship.

Limit on Number of Applications per Applicant: 1

An eligible applicant may submit only one application per annual competition.

Additional Eligibility Info:

Eligibility is based on the applicant's status at the application deadline, and if offered a Fellowship, at the time of acceptance.

Detailed Eligibility Requirements:

Described in detail below are the eligibility requirements for the NSF Graduate Research Fellowship Program: (1) citizenship; (2) degree requirements; and (3) field of study, degree programs, and proposed

research. Applicants are strongly advised to read the entire program solicitation carefully to ensure that they understand all the eligibility requirements. Applicants must self-certify that they meet all eligibility criteria.

1. Citizenship

Applicants must be U.S. citizens, nationals, or permanent residents ("green card" holders) by the application deadline.

The term "national" designates a native resident of a commonwealth or territory of the United States. It does not refer to a citizen of another country who has applied for U.S. citizenship and who has not received U.S. citizenship by the application deadline, nor does it refer to an individual present in the U.S. on any type of visa.

2. Degree Requirements

Eligible applicants: 1) current undergraduate seniors or bachelor's degree holders who have never enrolled in a degree-granting graduate program, and who will be prepared to attend graduate school in fall of the award year; 2) current joint bachelor's-master's degree students with three undergraduate years completed; and 3) current first-year graduate students in their first graduate degree program with less than one academic year completed according to institution's academic calendar.

a. Currently enrolled undergraduate seniors, and bachelor's degree holders with no prior enrollment in a graduate degree-granting program:

Undergraduate students on track to receive a bachelor's degree before the fall of the year following the application (e.g., senior or final year of a bachelor's degree program) and **bachelor's degree holders** who have never enrolled in a graduate degree program can apply an unlimited number of times prior to enrolling in a graduate degree program. They must be prepared to enroll full-time in an eligible graduate degree program by the fall term of the calendar year during which they are offered an NSF Graduate Research Fellowship.

b. Currently enrolled joint bachelor's-master's degree students:

Individuals applying while enrolled in a joint bachelor's-master's degree program (with at least three undergraduate years completed) are considered graduate students and are limited to **one** application to GRFP.

- c. Currently enrolled first-year graduate students in their first graduate degree program:
 - Applicants must be in the **first** year of their **first** graduate degree program, with less than
 one academic year of graduate study as indicated in the academic transcript issued by the
 Registrar of the enrolled institution, at the application deadline
 - Graduate status is determined to begin on the date indicated in the Registrar-issued transcript and ALL activities after that date will be considered graduate activities
 - Summer research activities that are part of the graduate degree program (e.g., research credits) will be counted as graduate activities
 - Participation in non-degree summer activities PRIOR TO graduate degree enrollment as indicated in the Registrar-issued transcript before the start of the fall graduate program is not included in this total
 - Graduate coursework taken without being enrolled in a graduate degree-granting program is not counted in this limit.

d. Field of Study, Degree Programs, and Proposed Research

Fellowships are awarded for graduate study leading to eligible research-based master's and doctoral degrees in the science, technology, engineering or mathematics (STEM) fields listed below:

- 1. Chemistry
- 2. Computer and Information Sciences and Engineering
- 3. Engineering
- 4. Geosciences
- 5. Life Sciences
- 6. Materials Research
- 7. Mathematical Sciences
- 8. Physics & Astronomy
- 9. Psychology
- 10. Social, Behavioral, and Economic Sciences
- 11. STEM Education and Learning Research

A complete list of eligible Major Fields of Study and their associated subfields, which include the high-priority research areas, is available in the Appendix. If awarded, Fellows must enroll in a graduate degree program that most closely corresponds with the proposed graduate program of study and research plan proposed in their application.

Only the subfields listed under the Major Fields of Study are eligible for NSF GRFP. No other subfields are eligible. Applicants are advised to consult a faculty member, academic advisor, mentor, or other knowledgeable source for guidance on preparation of their research plans, selection of Major Field of Study, and identification of subfields to ensure they are consistent with those included in the Appendix.

Only eligible research-based master's and doctoral degrees in STEM, including STEM education, are eligible for NSF GRFP support. Professional degree programs and graduate programs that are primarily course-based with no thesis requirement are ineligible for NSF GRFP support. **No clinical or health degree programs are eligible for NSF GRFP consideration**. **In FY2026, Clinical Psychology graduate degree programs are not eligible for NSF GRFP.**

Within eligible fields of study, there are ineligible areas of study and ineligible areas of proposed research. See below for ineligible areas of study and proposed research. Applications determined to be ineligible will not be reviewed.

a. Ineligible degree programs

Ineligible degree programs include, but are not limited to, programs awarding degrees in Business Administration, Public Health, Social Work, Law, Medicine, Pharmacy, Veterinary Medicine, Dentistry, and Clinical Psychology. No practice-oriented professional degrees are eligible. Any degree program that includes a practice-oriented, clinical or professional training requirements is ineligible. Joint or combined professional degree-science programs (e.g., MD/PhD or JD/PhD) and dual professional degree-science programs are also not eligible. Individuals enrolled in a graduate degree program while on a leave of absence from a professional degree program or professional degree-graduate degree joint program are not eligible.

b. Ineligible areas of study

Ineligible areas of graduate study include public health, global health, clinical practice, clinical psychology, counseling, social work, patient-oriented research, epidemiological and medical behavioral studies, outcomes research (interventions, treatment, or therapies), health services research, pharmacologic, non-pharmacologic, and behavioral interventions for physical or mental disease or disorder, prophylaxis,

diagnosis, therapy or treatment, drug and pharmaceutical development and testing. Graduate study to provide evidence leading to a scientific basis for consideration of a change in health policy or standard of care is also ineligible.

c. Ineligible proposed research

- i. Research for which the goals are directly human disease- or health-related, including the etiology and diagnosis of and treatment and/or interventions for physical or mental disease or disorder is not eligible for support. Research activities using animal models of disease for developing or testing of drugs, procedures, or interventions for treatment of physical or mental disease or disorder are ineligible. Research on drug and pharmaceutical development and testing are also ineligible. Population-based research including medical intervention trials is also ineligible.
- ii. Research focused on basic questions in plant pathology are eligible, however, applied studies focused on maximizing production in agricultural plants or impacts on food safety are not eligible.
- iii. Research with implications that inform policy is eligible. Research with the expressed intent to influence, advocate for or effect specific policies and outcomes is not eligible.

d. Limited exceptions to ineligible proposed research

- i. Certain areas of bioengineering research directed at medical use are eligible. These include research projects in bioengineering to aid persons with disabilities, or to diagnose or treat human disease or disorder, provided they apply engineering principles to problems in medicine while primarily advancing engineering knowledge. Applicants planning to study and conduct research in these areas of bioengineering should select biomedical engineering as the Field of Study.
- ii. Certain areas of materials research directed at development of materials for use in biological or biomedical systems are eligible, provided they are focused on furthering fundamental materials research.
- iii. Certain areas of research with etiology-, diagnosis-, or treatment-related goals that advance **fundamental knowledge** in engineering, mathematical, physical, computer, or information sciences, are eligible for support.

Applicants are advised to consult a faculty member, academic advisor, mentor, or other knowledgeable source for guidance on preparation of their research plans, selection of Major Fields of Study, and identification of subfields to ensure they are consistent with those included in the Appendix.

V. Application Preparation And Submission Instructions

A. Application Preparation Instructions

Fellowship applications must be submitted online using the NSF Graduate Research Fellowship Program Application Module at https://www.research.gov/grfp/Login.do by the deadline corresponding with the Field of Study selected in the application.

Applications must be received by 5:00 p.m. local time of the applicant's mailing address. Applications received after the Field of Study deadline will not be accepted. Applications submitted to a Field of Study deadline not in alignment with the proposed research plan and degree program will be returned without review.

All reference letters must be submitted online by the reference writers through the NSF Reference Letter System in the Research.gov site (https://www.research.gov/grfp/Login.do) and must be received by the reference letter deadline (see Application Preparation and Submission Instructions/C. Due Dates of this Solicitation), of 5:00 p.m. Eastern Time (ET; 4:00 p.m. Central Time; 3:00 p.m. Mountain Time; 2:00 p.m. Pacific Time; 12:00 noon Hawaii Time; reference writers in

other time zones should submit letters to comply with the 5:00 p.m. ET deadline). No reference letters will be accepted via email. Reference letter writers cannot be family members of the applicant. Applicants are required to provide the name and contact information for three (3) reference writers from non-family members. Names and contact information for up to five (5) potential reference letter writers can be provided. Two reference letters from non-family members must be received by the reference letter deadline for an application to be reviewed. If fewer than two reference letters (one or none) are received by the reference letter deadline, the application will not be reviewed.

Applicants must submit the following information through the GRFP Application Module: Personal Information; Education, Work and Other Experience; Official Transcript PDFs; Proposed Field of Study; Proposed Graduate Study and Graduate School Information; the names and email addresses of at least three reference letter writers (reference letters will be provided separately by these writers); Personal, Relevant Background, and Future Goals Statement PDF; and Graduate Research Plan Statement PDF.

Only the information required in the GRFP Application Module will be reviewed. No additional items or information will be accepted or reviewed. Applicants must not provide links to web pages within the application. Cited references must include the titles of the journal or publication (abbreviations accepted). Images may be included and do not modify the page limits. Review of the application and reference letters is based solely on materials received by the application and reference letter deadlines. No application materials will be accepted via email.

Applicants must follow the instructions in the GRFP Application Module for completing each section of the application. The statements must be written using the following guidelines:

- Standard 8.5" x 11" page size;
- Arial (not Arial Narrow), Courier New, or Palatino Linotype at a font size of 10 points or larger;
- Times New Roman at a font size of 11 points or larger; or
- Computer Modern family of fonts at a font size of 11 points or larger;
- A font size of less than 10 points may be used for mathematical formulas or equations, figures, tables, or diagram captions and when using a Symbol font to insert Greek letters or special characters. Other fonts not specified above, such as Cambria Math, may be used for mathematical formulas, equations, or when inserting Greek letters or special characters. Descriptive alternative text must be provided for all images, graphs, and charts, including sufficient color contrast for text and graphics, and must be submitted in a machine readable/accessible electronic format (e.g., HTML) to ensure legibility and readability for individuals with visual impairments;
- No more than six lines of text within a vertical space of one inch;
- 1" margins on all sides, no text inside 1" margins (no header, footer, name, or page number);
- Do not use line spacing options such as "exactly 11 point" that are less than single spaced;
- PDF format only;
- · Do not include URLs or weblinks or direct the reviewer to external sites;
- Cited references must include the name of the journal or publication (abbreviations accepted). URLs and DOI references will not be accepted in place of the name of the journal;
- Both Personal and Research Plan statements must address NSF's review criteria of Intellectual Merit and Broader Impacts (described in detail in Section VI);
- Separate sections for "Intellectual Merit" and "Broader Impacts," under individual headings and separated by a line break must be included in both the Personal and Research Plan statements. DO NOT include other terms in the individual headings, combine these two sections into one section, or combine them with any other section;
- Personal and Research Plan statements must have line breaks between sections. Applications that do not have line breaks between sections will be returned without review; and

• Applications that do not conform to the heading and section requirements for Intellectual Merit and Broader Impacts will be returned without review.

Compliance with these guidelines will be automatically checked by the GRFP Application Module. Documents that are not compliant **will not** be accepted by the GRFP Application Module. Applicants are **strongly advised** to proofread and upload their documents early to ensure they are format-compliant. Non-compliant documents will block upload of the complete application for receipt by the deadline. Applications that are not compliant with these format requirements will be returned without review.

The maximum length of the Personal, Relevant Background, and Future Goals Statement is three (3) pages (PDF). The maximum length of the Graduate Research Plan Statement is two (2) pages (PDF). These page limits include all references, citations, charts, figures, images, and lists of publications and presentations. Applicants must certify that the two statements (Personal, Relevant Background, and Future Goals Statement, and Graduate Research Plan Statement) in the application are their own original work. As explained in the NSF *Proposal and Award Policies and Procedures Guide* (PAPPG): "NSF expects strict adherence to the rules of proper scholarship and attribution. The responsibility for proper scholarship and attribution rests with the authors of a proposal; all parts of the proposal should be prepared with equal care for this concern. Authors other than the PI (or any co-PI) should be named and acknowledged. Serious failure to adhere to such standards can result in findings of research misconduct. NSF policies and rules on research misconduct are discussed in the PAPPG, as well as 45 CFR Part 689."

Applicants must list their undergraduate institution(s). Official transcripts that indicate the **most recent** academic status are **required** for all degree-granting programs. Transcripts may be included for all other institutions listed in the Education section.

At least one transcript must be included for the application to be accepted by the GRFP Application Module.

Transcripts must be uploaded through the GRFP Application Module by the Field of Study application deadline. Applicants should redact personally identifiable information (date of birth, individual Social Security Numbers, personal financial information, home addresses, home telephone numbers and personal email addresses) from the transcripts before uploading. Transcripts must be uploaded as a PDF to be accepted by the GRFP Application Module. **Transcripts must not be encrypted; the GRFP Application Module does not accept encrypted or password-protected transcripts.**

Failure to comply fully with the above requirements will result in the application not being reviewed.

Applications that are incomplete due to missing required transcripts and/or reference letters (fewer than two letters received), or that do not have "received" status in the Application Module on the application deadline for the selected Field of Study will not be reviewed. Applicants are advised to submit applications early to avoid unanticipated delays on the deadline dates.

Reference Letters

Reference writers cannot be family members of the applicant. Applicants are required to provide the name and contact information for three (3) reference writers from **non-family members**. Names and contact information for up to five (5) potential reference letter writers from non-family members can be provided. **Two reference letters from non-family members must be received by the reference letter deadline for an application to be reviewed**. If fewer than two reference letters (one or none) are received by the reference letter deadline, the application will not be reviewed.

No changes to the list of reference writers are allowed after the application is submitted. Applicants are strongly advised to check the accuracy of email addresses provided for reference writers before submitting their application.

All reference letters must be received through the NSF Reference Letter System by 5:00 pm Eastern Time (ET; 4:00 p.m. Central Time; 3:00 p.m. Mountain Time; 2:00 p.m. Pacific Time; 12:00 noon Hawaii Time; in all other time zones, the time corresponding to 5:00 p.m. Eastern Time) on the letter submission deadline date (see the deadline posted on GRFP site and in *Application Preparation and Submission Instructions/C. Due Dates* of this Solicitation). No exceptions to the reference letter submission deadline will be granted. Each letter is limited to two (2) pages (PDF). Applicants may request

up to five (5) reference letters and to rank those reference letters in order of preference for review. If more than three reference letters are received, the top three letters according to the applicant's ranked preference will be considered for the application. Reference writers will be notified by email of the request to submit a letter of reference on behalf of an applicant. Reference writers will not be notified of the ranked preference for review provided by the applicant.

To avoid disqualifying an application, reference writers should upload the letter at least an hour before the 5:00 p.m. ET deadline. No letters are accepted via email. Letter writers will receive a confirmation email after successful upload via the NSF Reference Letter System.

For technical assistance with letter upload contact NSF IT Service Desk: rgov@nsf.gov; 1-800-381-1532.

Applicants must enter an email address for each reference writer into the GRFP Application Module. An exact email address is crucial to matching the reference writer and the applicant in the GRFP Application Module. Applicants should ask reference writers well in advance of the reference-writer deadline, and it is recommended they provide copies of their application materials to the writers. No changes to the list of reference writers are allowed after application submission.

Reference letter requirements include:

- Institutional or professional letterhead, if available;
- SIGNED by the reference writer, including the name, professional title, department, and institution;
- Two (2) page limit in PDF format;
- Standard 8.5" x 11" page size;
- 11-point or higher Times New Roman font, and;
- Single-spaced using normal (100%) single-line spacing.

Reference letters should address the NSF Merit Review Criteria of Intellectual Merit and Broader Impacts (described in detail below). They should include details explaining the nature of the letter-writer's relationship to the applicant (including research advisor role), comments on the applicant's potential for contributing to a globally-engaged United States science and engineering workforce, statements about the applicant's academic potential and prior research experiences, statements about the applicant's proposed research, and any other information that will aid review panels in evaluating the application according to the NSF Merit Review Criteria.

Application Completion Status

Applicants should use the "Application Completion Status" feature in the GRFP Application Module to ensure all application materials, including reference letters, have been received by NSF before the deadlines. For technical support, call the NSF IT Service Desk at 1-800-381-1532 or e-mail regov@nsf.gov.

Interdisciplinary Applications

NSF welcomes applications for interdisciplinary programs of study and research; however, data on interdisciplinary study is collected for informational purposes only. Interdisciplinary research is defined as "a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice" (Committee on Facilitating Interdisciplinary Research, Committee on Science, Engineering, and Public Policy, 2004. *Facilitating interdisciplinary research*. National Academies. Washington: National Academy Press, p. 2). **Applications must be received by the deadline for the first Major Field of Study designated in the application. Applications will be reviewed by experts in the first Major Field of Study and associated subfield listed. Applicants are advised to select the Major Field of Study and associated subfield in the GRFP Application Module (see Fields of Study and associated subfields in Appendix) most closely aligned with the proposed graduate program of study and research plan. If awarded, Fellows will be required to enroll in a degree program most closely aligned with the proposed graduate program of study and research plan in the application.**

Withdrawal of a GRFP application

To withdraw a submitted application, the applicant must withdraw their application using the **Withdrawal** option in the GRFP Application Module.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Indirect Cost (F&A) Limitations:

No indirect costs are allowed.

Other Budgetary Limitations:

NSF awards \$53,000 each year to the GRFP institution to cover the Fellow stipend and Cost of Education allowance which is payment in lieu of all tuition and mandatory fees, for each NSF Graduate Research Fellow "on tenure" at the institution.

The NSF Graduate Research Fellowship Program Fellowship stipend is \$37,000 for a 12-month tenure period, prorated in monthly increments of \$3,083, disbursed according to the awardee institution's disbursement schedule. The institutional Cost of Education allowance is \$16,000 per tenure year per Fellow.

C. Due Dates

• **Application Deadline(s)** (received by 5 p.m. local time of applicant's mailing address)

November 10, 2025

Life Sciences

November 12, 2025

Computer and Information Science and Engineering; Materials Research; Psychology; Social, Behavioral and Economic Sciences; STEM Education and Learning

November 13, 2025

Engineering

November 14, 2025

Chemistry; Geosciences; Mathematical Sciences; Physics and Astronomy

D. Application Submission Requirements

Applicants are required to prepare and submit all applications for this program solicitation through the GRFP Application Module. Detailed instructions for application preparation and submission are available at: https://www.research.gov/grfp/Login.do. For user support, call the NSF Help Desk at 1-800-381-1532 or e-mail rgov@nsf.gov. The NSF Help Desk answers general technical questions related to the use of the system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

VI. Application Review Information

A. Merit Review Principles and Criteria

Applications are reviewed by disciplinary and interdisciplinary scientists and engineers and other professional graduate education experts. Reviewers are selected by Program Officers charged with oversight of the review process. Care is taken

to ensure that reviewers have no conflicts of interest with the applicants. Applications are reviewed in **broad areas** of related disciplines based on the applicant's selection of a Field of Study (see Fields of Study in Appendix). **Selection of a Major Field of Study determines the application deadline and the broad disciplinary expertise of the reviewers.** Applicants are advised to select the Major Field of Study and associated subfield in the GRFP Application Module (see Fields of Study and associated subfields in Appendix) **most closely aligned** with the proposed graduate program of study and research plan.

Each application will be reviewed independently in accordance with the NSF Merit Review Criteria using all available information in the completed application. In considering applications, reviewers are instructed to address the two Merit Review Criteria as approved by the National Science Board - Intellectual Merit and Broader Impacts. Applicants must include separate sections, under individual separate headings, on "Intellectual Merit" and "Broader Impacts" in each of their Personal and Research Plan statements in order to provide reviewers with the information necessary to evaluate the application with respect to both Criteria as detailed below. Both the Intellectual Merit and Broader Impacts criteria are to be given full consideration during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, applicants must fully address both criteria.

- Intellectual Merit: The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts**: The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

Factors reviewers will consider in assessing the potential **Intellectual Merit** of the application and the applicant's potential to advance knowledge and understanding in one or more fields may include (but are not limited to):

- Increase participation in STEM
- Improve STEM education in schools through outreach and mentoring
- Increase public scientific literacy and public engagement with STEM through community outreach
- Increase collaboration among academia, industry, and other types of organizations
- Improve education and educator development at any level in STEM
- Improve the well-being of individuals in society
- Develop a globally competitive STEM workforce
- Improve national security
- Increase the economic competitiveness of the U.S.
- Enhance infrastructure for research and education.

B. Application Review and Selection Process

Applications submitted in response to this program solicitation will be reviewed online by Panel Review.

The application evaluation involves the review and rating of applications by disciplinary and interdisciplinary scientists and engineers, and other professional graduate education experts.

Applicants are reviewed on their demonstrated potential to advance knowledge and to make significant research achievements and contributions to their fields, and to benefit society throughout their careers. Reviewers are asked to assess applications using a comprehensive approach, giving balanced consideration to all components of the application, including the educational and research record, leadership, outreach, service activities, and future plans, as well as individual competencies, experiences, and other attributes such as innovation and perseverance that are likely to result in success in a STEM graduate program. The aim is to recruit and retain a strong cohort of early-career individuals with high potential for future achievements, contributions, and broader impacts in STEM, including STEM education.

The primary responsibility of each reviewer is to evaluate eligible GRFP applications by applying the Merit Review Criteria described in Section VI.A,. Reviewers are instructed to review the applications comprehensively, applying the Merit Review Criteria and noting GRFP's emphasis on demonstrated potential for significant research achievements in STEM, including STEM education as well as their potential to have a positive impact on society. From these recommendations, NSF selects applicants for Fellowships or Honorable Mention, in line with NSF's mission and the goals of GRFP.

VII. Award Administration Information

A. Notification of the Award

NSF Graduate Research Fellowship Program applicants will be notified of the outcomes of their applications by early April of the competition year. The NSF publishes lists of Fellowship and Honorable Mention recipients on the GRFP Module at https://www.research.gov/grfp/Login.do in early April.

B. Award Conditions

NSF GRFP awards are made to the institution of higher education at which a Fellow is or will be enrolled. The awardee institution is responsible for financial management of the award and disbursement of Fellowship funds to the Fellow. The NSF GRFP award consists of the award notification letter that includes the applicable terms and conditions and Fellowship management instructions. All Fellowships are made subject to the provisions (and any subsequent amendments) contained in the document NSF Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials.

NSF GRFP awards provide funds for NSF Fellows who have "on tenure" status. The institution will administer the awards, including any amendments, in accordance with the terms of the Agreement and provisions (and any subsequent amendments) contained in the document NSF Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials.

The applicant must accept or decline the Fellowship by the deadline indicated in the award notification letter by logging into the GRFP Module at https://www.research.gov/grfp/Login.do with the applicant User ID and password. Failure to comply with the deadline and acceptance of Fellowship Terms and Conditions by the deadline will result in revocation of the Fellowship offer and render applicants ineligible to re-apply.

Terms and Conditions

Awardees must formally accept and agree to the terms and conditions of the Fellowship award. Acceptance of the Fellowship constitutes a commitment to pursue a graduate degree in an eligible science or engineering field. Acceptance of a Fellowship award is an explicit acceptance of this commitment and assurance that the Fellow will be duly enrolled in a graduate degree program consistent with the field of study indicated in their application by the beginning of the following academic year. Major changes in scope later in the graduate career require NSF approval. *NSF Graduate Research Fellowship Program Administrative Guide for Fellows and Coordinating Officials* includes the terms and conditions that apply to the Fellowship and subsequent institutional award, in addition to the eligibility requirements (U.S. citizen, national, or permanent resident, degree requirements, and field of study) and Certifications in the application. Each institution, in accepting the funds, also certifies that the Fellows are eligible to receive the Fellowship under these terms and conditions. Fellows are expected to make satisfactory academic progress towards completion of their graduate degrees, as defined and certified by the Fellow's GRFP institution. In cases where Fellows have misrepresented their eligibility, or have failed to comply with the Fellowship Terms and Conditions, the Fellowship will be revoked, and the case may be referred to the Office of the Inspector General for investigation. This action may result in requiring the Fellow to repay Fellowship funds to the National Science Foundation.

An individual may not accept the Graduate Research Fellowship if the individual accepts or is supported by another federal graduate fellowship.

Responsible Conduct of Research

It is the responsibility of the Fellow, in conjunction with the GRFP institution, to ensure that all academic and research activities carried out in or outside the US comply with the laws or regulations of the US and/or of the foreign country in which the academic and/or research activities are conducted. These include appropriate human subject, animal welfare, copyright and intellectual property protection, and other regulations or laws, as appropriate. All academic and research activities should be coordinated with the appropriate US and foreign government authorities, and necessary licenses, permits, or approvals must be obtained prior to undertaking the proposed activities.

In response to the America COMPETES Act, all Fellows supported by NSF to conduct research are required to receive appropriate training and oversight in the Responsible and Ethical Conduct of Research.

Research Involving Human Subjects

Projects involving research with human subjects must ensure that subjects are protected from research risks in conformance with the relevant Federal policy known as the Common Rule (*Federal Policy for the Protection of Human Subjects*, 45 CFR 690). All projects involving human subjects must either (1) have approval from an Institutional Review Board (IRB) before issuance of an NSF award; or, (2) must affirm that the IRB has declared the research exempt from IRB review, in accordance with the applicable subsection, as established in 45 CFR § 690.104(d) of the Common Rule. Fellows are required to comply with this policy and adhere to the organization's protocol for managing research involving human subjects.

Research Involving Vertebrate Animals

Any project proposing use of vertebrate animals for research or education shall comply with the Animal Welfare Act [7 U.S.C. 2131 et seq.] and the regulations promulgated thereunder by the Secretary of Agriculture [9 CFR 1.1-4.11] pertaining to the humane care, handling, and treatment of vertebrate animals held or used for research, teaching or other activities supported by Federal awards. In accordance with these requirements, proposed projects involving use of any vertebrate animal for research or education must be approved by the submitting organization's Institutional Animal Care and Use Committee (IACUC) before an award can be made. For this approval to be accepted by NSF, the organization must have a current Public Health Service (PHS) Approved Assurance.

Projects involving the care or use of vertebrate animals at an international organization or international field site also require approval of research protocols by the US grantee's IACUC. If the project is to be funded through an award to an international organization or through an individual fellowship award that will support activities at an international organization, NSF will require a statement from the international organization explicitly listing the proposer's name and referencing the title of the award to confirm that the activities will be conducted in accordance with all applicable laws in the international country and that the International Guiding Principles for Biomedical Research Involving Animals (see: http://www.cioms.ch/ 🔀) will be followed.

Legal Rights to Intellectual Property

The National Science Foundation claims no rights to any inventions or writings that might result from its fellowship or traineeship grants. However, fellows and trainees should be aware that the NSF, another Federal agency, or some private party may acquire such rights through other support for particular research. Also, fellows and trainees should note their obligation to include an Acknowledgment and Disclaimer in any publication.

C. Reporting Requirements

Acknowledgment of Support and Disclaimer

All publications, presentations, and creative works based on activities conducted during the Fellowship must acknowledge NSF GRFP Support and provide a disclaimer by including the following statement in the Acknowledgements or other appropriate section:

"This material is based upon work supported by the National Science Foundation Graduate Research Fellowship Program under Grant No. (NSF grant number). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."

Annual Activities Report and Annual Fellowship Status Declaration

Fellows are required to submit an Annual Activities Report and to complete Fellowship Status Declaration by the deadline date each year (deadline notification sent by email), using NSF's GRFP Module. The GRFP Module permits online submission and updating of activity reports, including information on research accomplishments and activities related to broader impacts, presentations, publications, teaching and research assistantships, awards and recognitions, and other scholarly and service accomplishments. These reports must be reviewed and satisfactory progress verified by the faculty advisor or designated graduate program administrator prior to submission to NSF.

Fellows must declare their intent to utilize the Fellowship for the following year using the NSF GRFP Module. Failure to declare Fellowship status by the established deadline violates the terms and conditions for NSF Fellowship awards, and results in termination of the Fellowship.

Program Evaluation

The Division of Graduate Education (DGE) conducts evaluations to provide evidence on the impact of the GRFP on individuals' educational decisions, career preparations, aspirations and progress, as well as professional productivity; and provide an understanding of the program policies in achieving the program goals. Additionally, it is highly desirable to have a structured means of tracking Fellows beyond graduation to gauge the extent to which they choose a career path consistent with the intent of the program and to assess the impact the NSF Graduate Research Fellowship has had on their graduate education experience. Accordingly, Fellows and Honorable Mention recipients may be contacted for updates on various aspects of their employment history, professional activities and accomplishments, participation in international research collaborations, and other information helpful in evaluating the impact of the program. Fellows and their institutions agree to cooperate in program-level evaluations conducted by the NSF and/or contracted evaluators. The 2014 GRFP evaluation is posted on the "Evaluation Reports" Web page for NSF's Directorate for STEM Education.

GRFP institutions are required to submit the GRFP Completion Report annually. The Completion Report allows GRFP institutions to certify the current status of all GRFP Fellows at the institution. The current status will identify a Fellow as: In Progress, Graduated, Transferred, or Withdrawn. For Fellows who have graduated, the graduation date is a required reporting element.

VIII. Agency Contacts

Please note that the program contact information is current at the time of publishing. See program website (https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=6201) for any updates to the points of contact.

General inquiries regarding this program should be made to:

• Graduate Research Fellowship Program, GRFP, telephone: (703)292-8630, email: grfp@nsf.gov

For questions related to the use of GRFP Application Module, contact:

• NSF Help Desk: telephone: 1-800-381-1532; e-mail: rgov@nsf.gov

The Graduate Research Fellowship Operations Center is responsible for processing applications and responding to requests for information.

IX. Other Information

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Grants Conferences. Subscribers are informed through e-mail or the user's Web

browser each time new publications are issued that match their identified interests. "NSF Update" also is available on NSF's website.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at https://www.grants.gov.

Students are encouraged to gain professional experience in other countries through their university graduate programs, and to participate in international research opportunities offered by NSF at: Office of International Science and Engineering (OISE) | NSF - National Science Foundation. Other funding opportunities for students are available at http://www.nsfgrfp.org/ L.

About The National Science Foundation

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the NSF Proposal & Award Policies & Procedures Guide Chapter II.F.7 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at https://www.nsf.gov

• Location: 2415 Eisenhower Avenue, Alexandria, VA 22314

• For General Information (703) 292-5111 (NSF Information Center):

• TDD (for the hearing-impaired): (703) 292-5090

• To Order Publications or Forms:

Send an e-mail to: nsfpubs@nsf.gov

or telephone: (703) 292-8134

• **To Locate NSF Employees:** (703) 292-5111

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 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 other individuals who perform a service to or work under a contract, grant, cooperative agreement, advisory committee, committee of visitors, or other arrangement with the Federal government as necessary to complete assigned work; to other government agencies needing data regarding applicants or nominees as part of the 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 Record Notices, 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.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0023. Public reporting burden for this collection of information is estimated to average 12 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton Reports Clearance Officer Policy Office, Division of Institution and Award Support Office of Budget, Finance, and Award Management National Science Foundation Alexandria, VA 22314

X. Appendix

NATIONAL SCIENCE FOUNDATION GRADUATE RESEARCH FELLOWSHIPS

Major Fields of Study

Note: Applications are reviewed based on the selection of a Major Field of Study. As an example, CHEMISTRY is a Major Field of Study, and Chemical Catalysis is a subfield under CHEMISTRY. A Fellowship can be accepted in the field of study that **most closely corresponds** to the proposed graduate program of study and research plan in the application.

Selection of a Major Field of Study determines the application deadline, the broad disciplinary expertise of the reviewers who will review the application, and the discipline of the graduate program if the Fellowship is accepted. The subfield category designates specific expertise of the reviewers. Applications will be reviewed according to the Major Field of Study and subfield indicated in the application

CHEMISTRY

Artificial Intelligence

Chemical Catalysis

Chemical Measurement and Imaging

Chemical Structure, Dynamics, and Mechanism

Chemical Synthesis

Chemical Theory, Models and Computational Methods

Chemistry Education

Chemistry of Life Processes

Computationally Intensive Research

Environmental Chemical Systems

Macromolecular, Supramolecular, and Nanochemistry

Quantum Information Science

Sustainable Chemistry

COMPUTER AND INFORMATION SCIENCES & ENGINEERING

Accessibility

Algorithms and Theoretical Foundations

Artificial Intelligence

Augmented Reality/Virtual Reality, Graphics, and Visualization

Bioinformatics and Bio-inspired Computing

Biotechnology

Communication and Information Theory

Computationally Intensive Research

Computer Architecture

Computer Science Education

Computer Security and Privacy

Computer Systems

Computer Vision

Cyber-Physical Systems and Embedded Systems

Cybersecurity

Data Science, Data Mining, Information Retrieval and Databases

Electronic Design Automation and Design of Micro and Nano Computing Systems

Fairness, Explainability, Accountability and Transparency in Analytics

Formal Methods, Verification, and Programming Languages

Human Computer Interaction

Information Science

Machine Learning

Natural Language Processing

Parallel, Distributed, and Cloud Computing

Quantum Information Science

Robotics

Scientific Computing

Social Computing

Software Engineering

Wired and Wireless Networking

ENGINEERING

Aeronautical and Aerospace Engineering

Agricultural Engineering

Artificial Intelligence

Bioengineering

Biomedical Engineering

Chemical Engineering

Civil Engineering

Computationally Intensive Research

Computer Engineering (including Networking)

Cybersecurity

Data Science

Electrical and Electronic Engineering

Energy and Power Engineering

Engineering Education

Environmental and/or Ecological Engineering

Industrial Engineering & Operations Research Machine Learning Manufacturing Engineering Materials Science & Engineering (including Polymers, Ceramics, Semiconductors) Mechanical Engineering Microwave Electromagnetics Engineering **Nuclear Engineering** Ocean Maritime Engineering Optical Engineering Quantum Engineering Quantum Information Engineering Quantum Information Science Robotics, Control, Automation Systems Engineering Wireless Engineering **GEOSCIENCES** Aeronomy Artificial Intelligence Arctic-Antarctic Atmospheric Chemistry Biogeochemistry **Biological Oceanography** Chemical Oceanography Climate and Large-Scale Atmospheric Dynamics Coastal Marine Science **Coastal Studies** Computationally Intensive Research Earth System Science **Environmental Science** Geobiology Geochemistry

Geochronology
Geodynamics
Geoinformatics
Geology
Geomorphology
Geophysics
Geosciences Education
Glaciology
Heliospheric Physics
Hydrology
Ionospheric Physics
Magnetospheric Physics
Marine Biology
Marine Ecology
Marine Geology and Geophysics
Ocean Technology (ROVs, AUVs, sensors)
Paleoclimate
Paleooceanography
Paleontology and Paleobiology
Petrology
Physical and Dynamic Meteorology
Physical Oceanography
Quantum Information Science
Remote Sensing
Sea Ice
Sedimentary Geology
Solar Physics
Space Weather
Tectonics
Volcanology

LIFE SCIENCES

Artificial Intelligence

Materials Science Education
Materials Theory
Metallic Materials
Photonic Materials
Physics of Materials
Polymers
Quantum Information Science
MATHEMATICAL SCIENCES
Algebra, Number Theory, and Combinatorics
Analysis
Applied Mathematics
Artificial Intelligence
Biostatistics
Computational and Data-enabled Science
Computational Mathematics
Computational Statistics
Computationally Intensive Research
Geometric Analysis
Logic or Foundations of Mathematics
Mathematical Biology
Mathematics Education
Probability
Quantum Information Science
Statistics
Topology
PHYSICS & ASTRONOMY
Artificial Intelligence
Astronomy and Astrophysics
Atomic, Molecular and Optical Physics
Computationally Intensive Research
Condensed Matter Physics

Nuclear Physics
Particle Physics
Physics or Astronomy Education
Physics of Living Systems
Plasma Physics
Quantum Information Science
Solid State Physics
Theoretical Physics
PSYCHOLOGY
Artificial Intelligence
Cognitive Neuroscience
Cognitive Psychology
Comparative Psychology
Computational Psychology
Computationally Intensive Research
Developmental Psychology
Industrial/Organizational Psychology
Perception and Psychophysics
Personality and Individual Differences
Psycholinguistics
Psychology Education
Quantum Information Science
Social Psychology
SOCIAL SCIENCES
Anthropology
Archaeology
Artificial Intelligence
Biological Anthropology
Communications
Computationally Intensive Research
Cultural Anthropology

Decision Making and Risk Analysis
Economics
Geography
International Relations
Law and Social Science
Linguistic Anthropology
Linguistics
Medical Anthropology
Political Science
Public Policy
Quantum Information Science
Science and Technology Studies
Science Policy
Social Sciences Education
Sociology
Urban and Regional Planning
STEM EDUCATION AND LEARNING RESEARCH
Artificial Intelligence
Computationally Intensive Research
Engineering Education
Mathematics Education
Quantum Information Science
Science Education
Technology Education





Cybersecurity

National Science Foundation, 2415 Eisenhower Ave Alexandria, VA 22314 Tel: (703) 292-5111,