**Program Purpose.** The NSF GRFP contributes to the vitality and diversity of the U.S. scientific and engineering workforce. The program recognizes and supports outstanding graduate students who are pursuing research-based master's and doctoral degrees in fields within NSF's mission. The GRFP provides three years of support for the graduate education of individuals **who have demonstrated their potential for significant achievements in science and engineering research**.

**Deadlines:** 8:00 pm Eastern Standard Time

Engineering; Computer and Information Science and Engineering
Materials Research October 29, 2014

Mathematical Sciences; Chemistry; Physics and Astronomy:       October 30, 2014

Social Sciences; Psychology; STEM Education and Learning:       November 03, 2014

Life Sciences; Geosciences: November 04, 2014

*Reference letters* November 6, 2014

**Award Information:** 2,000 awards anticipated**.** $44,000 each year a Fellow is "On Tenure"; funds to the institution are allocated for a $32,000[[1]](#footnote-1) **stipend** (12-month tenure period, prorated in monthly increments of $2,666) and an **institutional cost-of-education allowance** at $12,000 per tenure year per Fellow.

**Review Process & Criteria:** Applications will be **reviewed** **online by virtual panels** of disciplinary and interdisciplinary scientists and engineers and other professional graduate education experts. Each application will be reviewed independently in accordance with the NSF Merit Review Criteria using *all available information in the completed application.* Reviewers are instructed to address the two Merit Review Criteria as approved by the National Science Board - Intellectual Merit and Broader Impacts ([NSF Proposal and Award Policies and Procedures Guide](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=papp)). **Therefore, applicants must include separate statements on Intellectual Merit and Broader Impacts in their written statements in order to provide reviewers with the information necessary to evaluate the application with respect to both Criteria as detailed in the GRFP solicitation and** Chapter III of the [NSF Proposal and Award Policies and Procedures Guide](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=papp):

 When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. Reviewers will be asked to evaluate all proposals against two criteria:

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

Societally relevant outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education. (from: http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg\_2.jsp#IIC2di)

GRFP review panelists may consider the following with respect to the **Intellectual Merit Criterion**: the potential of the applicant to advance knowledge based **on a holistic analysis of the complete application**, including the personal statement, relevant background, future goals, graduate research statement, strength of the academic record, description of previous research experience or publication/presentations, and references and with respect to the **Broader Impacts Criterion**: the potential of the applicant for future broader impacts as indicated by personal experiences, professional experiences, educational experiences and future plans.

**Eligibility:** Applicants must meet **three** **eligibility categories** pertaining to 1) citizenship; 2) degree requirements; and 3) field of study **by the application deadline or otherwise indicated**.

**1. Citizenship:** Applicants must be United States citizens, nationals, or permanent residents of the U.S by the application deadline.

**2. Degree Requirements:** Fellowships are awarded to individuals in the **early stages of their graduate study**. The degree requirements criterion guidelines to determine eligibility are below:

1. Have adequate preparation to begin graduate study and research by summer or fall 2014. Ordinarily demonstrated **by receipt of a bachelor's degree in a science or engineering field earned prior to fall 2015.**
2. Individuals are typically eligible to apply:
	1. During the senior year of college
	2. After graduating from college and **prior to** entering graduate school
	3. During the first year of graduate school
	4. Prior to completing the fall term of the second year of graduate school.
* Have completed no more than 12 months of full-time graduate study or its equivalent as of August 1, 2014. *Full-time graduate study is as defined by the universities attended.* There is no credit hour limit for students who have completed only full-time graduate study; eligibility for full-time students is based on the length of time enrolled in the graduate program.
* Have completed no more than 24 semester hours or 36 quarter hours or their equivalent of part-time graduate study (or a combination of part-time and full-time graduate study) as of August 1, 2014.
* **NOTE:** All post-baccalaureate, graduate-level study is counted toward the allowed 12 months of completed graduate study. This includes all master's and doctoral programs. **Excluded from** ‘completed graduate study’ are Pre-graduate participation programs in summer activities (e.g., bridge programs, field studies, lab rotations) offered by a graduate program prior to the start of the fall graduate program.

Applicants in joint BS/MS programs are typically eligible to apply prior to completion of any further graduate study.

* In four-year joint programs, applicants may apply in the fourth year and after completion of the program. Completion of any graduate study outside of the joint program disqualifies an applicant.
* In five-year joint programs, applicants may apply in the fourth and fifth years of the program and after completion of the program. Completion of any further graduate study outside of the joint program disqualifies an applicant.

**What does NSF consider to be Completed Graduate Study or an Extenuating Circumstances?**

**Completed Graduate Study:** Applicants may have completed no more than 12 months of full-time graduate study or its equivalent by August 1, 2014. All post-baccalaureate, graduate study is counted towards the allowed 12 months of graduate study. This includes the following:

* All master's programs (including research-based or coursework-based programs, and "terminal" programs as well as those that are contiguous with a Ph.D. program)
* All doctoral programs
* Post-baccalaureate, graduate-level coursework completed outside a degree program
* Both full-time and part-time graduate programs**.**

**Extenuating Circumstances:** Applicants who have completed more than twelve months of graduate study may be considered eligible if they have had an interruption in graduate study of at least two consecutive years prior to November 2014. To be eligible, applicants must have completed no additional graduate study by August 1, 2014. A statement describing the extenuating circumstance is required in the application.

**3. Field of Study**

Fellowships are awarded for study leading to research-based master's and doctoral degrees in the fields supported by the National Science Foundation (See: <http://www.nsf.gov/pubs/2014/nsf14590/nsf14590.htm#appendix>. An individual's **proposed research and graduate study must both** be in science or engineering. Ineligible are practice-oriented professional degree programs or biomedical / disease oriented fields (exception: bioengineering when principles of engineering are applied).

| **Done** | **Task** |
| --- | --- |
| 🞎 | 1. **Confirm** that you meet all three eligibility criteria.
 |
| 🞎 | 1. **Read solicitation** – we recommend twice in separate sittings. In addition to describing the application and review processes, this document also presents what NSF’s expectations are of Fellows during their award period (progress reports; responsible conduct of research etc.).
 |
| 🞎 | 1. **Register in FASTLANE** – https://www.fastlane.nsf.gov/grfp/GRFPLogout.do

 |
| 🞎 | 1. **Review the GRFP FASTLANE application** (<https://www.fastlane.nsf.gov/grfp/Login.do>) to become generally familiar with the parts of the application. The application comprises the *instructions* and the eight additional components (or modules).
2. Personal Information
3. Education and Work Experience (Transcripts)
4. Proposed Graduate Program
5. References (START ON EARLY)
6. Personal Statement, Relevant Experience and Future Plans (Build in time for review by others)
7. Graduate Research Statement (Build in time for review by others)
8. NSF GRFP Program Information
9. Submit Application

NOTE: If you have *any* questions about what you are agreeing to when you log in or have any other questions about the application, don’t hesitate to ask Trish Lowney – plowney@syr.edu, x2882. |
| 🞎 | 1. **Reflect and list** what makes you unique and demonstrates your potential for significant achievements in science or engineering research.
	* GPA: Rock star; not a rock star but when from okay to rock star
	* Honors and awards – scholarships, fellowships, election to honor societies
	* Research activities – REU, independent study, field work, volunteer research, etc.
		+ Publications, conference / symposium presentations, etc.
	* First generation, URM, person with disability, from rural community etc.
	* Academic achievement while working one or more jobs, or leading or engaging in student or community groups, etc.
	* Social commitment: volunteering, tutoring, citizen science, etc.
 |
| 🞎 | 1. **Discuss** the appropriateness of applying with mentors / advisors based on understanding of review criteria, application requirements and your interests / potential. In **preparation** for this conversation – **list** why you want a career in science or engineering research and what inspired you for this career. *Go / no go?*
* If no go – cancel application in GRFP FASTLANE.
* If go, proceed – information below may be useful..
 |
| 🞎 | 1. **Reread** the review criteria and selection process so you can ensure that your application – in total – is as compelling as possible.
	* *Are you clear what the difference is between intellectual merit and broader impacts?*
	* <http://www.nsf.gov/pubs/2014/nsf14590/nsf14590.htm#review>
 |
| 🞎 | 1. Based on your review of the solicitation and FASTLANE GRFP application, prepare a **Proposal Development Plan**; review it daily to stay on task.
* List all activities with **deadlines** for completion.
* Components in Red (#4 above) should be prioritized, as they require others help
* Plan on being done **one week before the NSF deadline** to allow for surprises and application polishing by others.
 |
| 🞎 | 1. **Enlist the help of others** to read and comment on your two statements. These documents are ***your work****,* but it’s okay to get input from others –mentors or advisors on the clarity of your writing and completeness of responding to requested info or review criteria.
* Let them know when you will provide them draft statements, review criteria, and other info.
* Be explicit when you’d like their input by. Confirm they can meet this timeline.

*People available to help:* Trish Lowney, plowney@syr.edu; Kate Hanson, Cristina Leigh-Deitz  |
|  | **NOTE:** Failure to follow application instructions may result in your proposal being returned without review. For example, * missing your submission deadline;
* not having three reference letters;
* not following format requirements; or
* not addressing separately intellectual merit and broader impacts in your statements.
 |

|  |  |
| --- | --- |
|  | **APPLICATION MODULES**  |
| **A.** | **Personal Information** |
| 🞎 | Complete required fields. |
| **B.** | **Education & Work Experience (EWE) Module –** including **Transcripts** |
| 🞎 | 1. **Education.** List colleges or universities attended and your enrollment details.
* If you earned more than one degree or majored in multiple subjects at the same institution, click on the *Add New* button and enter the same institution information while selecting a different degree or major.
* If you attended more than one institution for your baccalaureate career (e.g., a community college or another institution before transferring to your baccalaureate institution, you took summer courses or studied abroad, etc.), you need to only list the degree-granting institution, **provided** any transfer credits appear on your baccalaureate institution's transcript.
* If you started a graduate program in **Fall 2014,** also enter your graduate institution and upload your transcript/or class schedule or other verification of current enrollment.
 |
|  | 1. **TRANSCRIPTS –** Requiredfor all institutions listed in the EWW module, e.g., undergraduate institution and for all graduate work.
* Transcripts must meet the following requirements:
1. The transcript must be legible
2. The applicant name must be listed
3. The school name must be listed
4. If the institution does not use a 4.0 grade scale, provide the grade scale used as the last page of the document
5. Provide an uploaded transcript for each degree, unless a single transcript lists all degrees
6. Rules about page margins do not apply to transcripts
7. If you have completed or enrolled in a joint baccalaureate-master's degree program, your transcript must clearly show that both degrees were earned in a joint program (i.e., they were not earned in separate undergraduate and Master's programs that were completed at the same institution). If your transcript does not clearly show the joint program, you must upload a letter from the registrar of the institution certifying enrollment in a joint program appended to the transcript for that institutionin the transcript upload section. Failure to provide clear evidence of a joint program may result in an application being returned without review.
 |
| 🞎 | Redact any personal identifiable information (date of birth, social security no.) before uploading.

|  |  |  |
| --- | --- | --- |
| **Transcripts requested from:** | **Redacted**  | **Uploaded**  |
|  |  |  |
|  |  |  |

 |
| 🞎 | 1. **Other experience –**
	1. List up to five fellowships, scholarships, teaching, and work experiences relevant to your field of study, since entering college/university. Experiences do not have to be limited to the academic realm.
 |
| 🞎 | * 1. List honors, publications, presentations not listed elsewhere
 |
| **C.** | **Proposed Graduate program** |
| 🞎 | 1. Indicate *proposed* graduate institution and graduate program
2. Select primary *field of study* from the drop down list
3. Complete remaining information – NOTE: dept name might be different than the program
4. Select applicable highest degree to be attained with fellowship

NOTE: Applications are assigned to panels based on the applicant's chosen *Field(s) of Study* and the *discipline(s)* represented. Thus, select the Field of Study most closely aligned with the proposed graduate program of study and research plan.  |
| **D.** | **REFERENCES**  |
|  | Three letters of reference are required, each no more than 2 pages. They must be uploaded into your application by the referee no later than **8:00 pm, Nov 6, 2014** |
| 🞎 | 1. **Identify up to five individuals** not related to you, who can provide you with very strong letters of reference. (Three are required for a complete application; you can rank folks in FASTLANE – they will not see these rankings.)
 |
| 🞎 | 1. **Meet with potential reference writers** and ask for their support via a letters of reference.

Once they agree – enter their name, institution an email address in the “REFERENCES” module in GRFP FASTLANE. They will receive an email from FASTLANE with log-in information, so it’s important that the email address be correct.* + 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |
| 🞎 | 1. **Provide** **your internal deadlines** toreferences:
* When you will get them draft of your application materials, and a sample reference letter – limited that describes **what’s unique about you** and the information required:
	+ the nature of their relationship to you,
	+ your potential for contributing to a globally-engaged United States science and engineering workforce,
	+ your academic potential and prior research experiences,
	+ your proposed research, and any other information to enable review panels to evaluate the application according o the NSF Merit Review Criteria on intellectual merit and broader impacts.
* Writers should use Institutional letterhead, and include their name, title, department, and institution or organization.
 |
|  | **Personal, Research, and Eligibility Statements** |
|  | **FORMAT**: Paper Size: 8.5” x 11” Margins: 1” all sides Font: 12 pt Times New Roman or Computer Modern. Publication or presentation citations can be in 10 pt font. Character spacing = normal (100%) Line spacing must be single (or larger)**Page Limits** (inclusive ofcitations and images – black and white encouraged)Personal statement, background and future goals 3 pagesResearch statement 2 pagesEligibility statement (if required.) 1 page |
| **E.** | **Personal statement, background and future goals (3 pg.) –** Focuseson your career goals and how your previous experiences (undergraduate research or other activities) have influenced your career goals and prepared you for graduate school, and how you see advanced study as part of their career development.  |
| 🞎 | Fellows are expected to become globally engaged knowledge experts and leaders who can contribute significantly to research, education, and innovations in science and engineering. The purpose of this statement is to demonstrate your potential to satisfy this requirement. Your ideas and examples do not have to be confined necessarily to the discipline that you have chosen to pursue. Describe your personal, educational and/or professional experiences that motivate your decision to pursue advanced study in science, technology, engineering or mathematics (STEM). Include specific examples of any research and/or professional activities in which you have participated. Present a concise description of the activities, highlight the results and discuss how these activities have prepared you to seek a graduate degree. Specify your role in the activity including the extent to which you worked independently and/or as part of a team. Outline your educational and professional development plans and career goals. How do you envision graduate school preparing you for a career that allows you to contribute to expanding scientific understanding as well as broadly benefit society? ***Intellectual Merit.*** Describe the contributions of your activity to advancing knowledge in STEM fields as well as the potential for ***Broader societal impacts.*** (See Solicitation, Section VI, for more information about Broader Impacts).  |
| **F.** | **Graduate Research Statement (2 pages) -** present an original topic/idea as well as a plan for how you propose to use their graduate school years to prepare them for their careers |
| 🞎 | Present an original research topic that you would like to pursue in graduate school. Describe the research idea, your general approach, as well as any unique resources that may be needed for accomplishing the research goal (i.e., access to national facilities or collections, collaborations, overseas work, etc.) You may choose to include important literature citations. (within 2 pages, can be 10 pt)Address the potential of the research to advance knowledge and understanding within science **(intellectual merit)** as well as the potential for **broader impacts on society**. The research discussed must be in a field listed in the Solicitation (Section X, Fields of Study). <http://www.nsf.gov/pubs/2014/nsf14590/nsf14590.htm#appendix> |
| 🞎 | Enter a descriptive, jargon free research title (255 characters and spaces or less) |
| 🞎 | Provide relevant key words (50 characters and spaces of less) |
| **G.** | **NSF GRFP Program Information** |
| 🞎 | 1. Completed Study
	1. Select applicable statement and if necessary upload eligibly exception doc.
 |
| 🞎 | * 1. Other Program Information – complete as applicable to you.
 |
| **H** | **Prepare to submit and Submit** |
| 🞎 | Incorporate feedback on statements etc from colleagues, advisors, mentors and others (ideally you’ve been working with these folks closely on drafts from the get go.) |
| 🞎 | Check application completeness |
| 🞎 | Print copy for your files. Read / review and check for typos  |
| 🞎 | When all good – Submit on or before 8:00 pm on your deadline |
| 🞎 | Check intermittently to see your references have submitted before their Nov 14 deadline; ping if they have not. |

**FORMAT:**

Two pages, maximum

On institutional/organizational letterhead

Include your name, title, affiliation (department/unit/office) within institution/organization

We ask that in a reference letter, the referee do the following:

•   How long they have known you, and in what capacity.

•   On the basis of knowledge of your past and current research experience and activities, comment on your potential to do the following:

-   Succeed in graduate school,

-   Conduct original research,

-   Communicate effectively,

-   Work cooperatively with peers and supervisors, and

-   Make unique contributions to your chosen discipline and to society in general.

•   If he or she has known or supervised other NSF Graduate Research Fellows, compare you with them. Otherwise, compare you to other successful graduate students or senior undergraduates that he or she has known in their institution or through interactions with other institutions.

•   Comment on the broader impacts of supporting you, including your leadership potential in the chosen field of graduate work and in general, as a member of the scientific and technical community.

Note that the more specific (as opposed to generic) a letter the referee can provide, the better it is for you as an applicant. If the referee is your research supervisor, the referee should comment on the originality of your proposal, and communicate what role he or she played in assisting you with the proposal.

 The following are the two issues that are the basis of NSF's merit review criteria:

•   **Intellectual Merit:** The intellectual merit criterion includes demonstrated intellectual ability and other accepted requisites for scholarly scientific study, such as the ability to: (1) plan and conduct research; (2) work as a member of a team as well as independently; and (3) interpret and communicate research findings. 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:** The broader impacts criterion includes contributions that (1) effectively integrate research and education at all levels, infuse learning with the excitement of discovery, and assure that the findings and methods of research are communicated in a broad context and to a large audience; (2) encourage diversity, broaden opportunities, and enable the participation of all citizens-women and men, underrepresented minorities, and persons with disabilities-in science and research; (3) enhance scientific and technical understanding; and (4) benefit society. Applicants may provide characteristics of their background, including personal, professional, and educational experiences, to indicate their potential to fulfill the broader impacts criterion.

1. Expected to increase to $34,000 per year with FY 15 NSF budget [↑](#footnote-ref-1)