Each application will be reviewed on the basis of merit using all available information in the completed application. It is especially important that you address the two Merit Review Criteria as approved by the National Science Board – *Intellectual Merit and Broader Impacts* – (Grant and Proposal Guide, NSF 10-1) in your essays.

- **Intellectual Merit**
  - How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields?
  - How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of prior work.)
  - To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts?
  - How well conceived and organized is the proposed activity?
  - Is there sufficient access to resources?

Reviewers assess Intellectual Merit through your:
  - Academic performance
  - Research plan
  - Appropriate choice of institution
  - References
  - Research experience

- **Broader Impacts**
  - How well does the activity advance discovery and understanding while promoting teaching, training, and learning?
  - How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)?
  - To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships?
  - Will the results be disseminated broadly to enhance scientific and technological understanding?
  - What may be the benefits of the proposed activity to society?

Reviewers assess Broader Impacts through your:
  - Prior accomplishments
  - Future plans
  - Individual experiences
  - Potential to reach diverse audiences
  - Potential benefit to society

**Personal Statement Essay**

Describe any personal, professional, or educational experiences or situations that have contributed to your preparation and desire to pursue advanced study in science, technology, engineering, or mathematics. Describe your leadership potential, and how you see yourself currently or in the future contributing to research, education, and innovations in science and engineering. Discuss your career aspirations and some goals you hope to achieve. Note: The personal statement is not a repeat of your research statement. What is important is the content, not the length.

NSF 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 essay
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.

**Previous Research Essay**

Describe any scientific research activities in which you have participated, such as experience in undergraduate research programs, or research experience gained through summer or part-time employment or in work-study programs, or other research activities, either academic or job-related. Explain the purpose of the research and your specific role in the research, including the extent to which you worked independently and/or as part of a team, and what you learned from your research experience. Describe how you disseminated your results (i.e. conference, symposium, publication). In your statement, distinguish between undergraduate and graduate research experience. If you provided a complete list of publications and presentations in the Education and Work Experience section of the application, it is acceptable to list the highlights of your publication and presentation record in this essay. Any list of publications and presentations included in this essay counts towards the page limit of this essay.

If you have no direct research experience, describe any activities that you believe have prepared you to undertake research.

**Proposed Research Essay**

In a clear, concise, and original statement, present a complete plan for a research project that you plan to pursue during the Fellowship Tenure. Your statement should demonstrate your understanding of research design and methodology and explain the relationship to your previous research, if any.

Format: Introduction and problem statement, hypothesis, methods to test hypothesis, anticipated results or findings, expected significance and broader impacts, and a short list of important literature citations. If you have not formulated a research plan, your statement should include a description of a research topic that interests you and how you might conduct research on that topic.

NSF Fellows are expected to become globally engaged knowledge experts and leaders who can contribute significantly to research, education, and innovations in science and engineering. Demonstrate your potential to satisfy this requirement in this essay.

You MUST especially provide specific details in this essay that address BOTH the NSF Merit Review Criteria of Intellectual Merit and Broader Impacts in order for your application to be competitive. In addition to review of the Intellectual Merit and Broader Impacts of your proposal, research topics discussed in your proposed plan must be in fields within NSF’s mission.

**Essay Formatting Instructions**

- All essays should be written using standard 8.5" x 11" page size, 12-point, Times New Roman font or 12-point, Computer Modern (LaTeX) font, 1" margins on all sides, and must be single spaced or greater. Only publications and presentation citations may be a smaller font, no less than 10 point.

- There is a 2-page limit for the Personal Statement Essay, Previous Research Essay, and Proposed Research essays. There is a 1-page limit for the Eligibility Essay (for those having completed greater than 12 months of graduate study). References and citations are included toward the page limits.

- Character spacing should use normal (100%) single-line space option. Do not condense line spacing or reduce the character spacing scale. Adherence to type size, character spacing, and page length is necessary to ensure that no applicant will have an unfair advantage, by using smaller type or line spacing to provide more text in the application.
• Images may be included in your essays; however, they will be produced only in black and white. All images, footnotes, endnotes, and other citations are included in the 2-page limit.