

NSF NRT Engendering the Spirit of Gadugi at the Food-Energy-Water Nexus



Please contact the Program Coordinator, Dr. Sabrina Buer, at sbuer@tntech.edu for more information.
Wado and Thanks Y'all!

Application Process

Step 1: All students must apply (<https://www.tntech.edu/graduatestudies/nrt-nsffellowship.php>) and be accepted into an approved STEM M.S. or Ph.D. program, such as:

- Biology, M.S.
- Chemical Engineering, M.S. or Ph.D.
- Chemistry, M.S.
- Civil and Environmental Engineering, M.S. or Ph.D.
- Computer Science, M.S. or Ph.D.
- Electrical and Computer Engineering, M.S. or Ph.D.
- Environmental Sciences – Agriculture, Ph.D.
- Environmental Sciences – Biology, Ph.D.
- Environmental Sciences – Chemistry, Ph.D.
- Environmental Sciences – Geology, Ph.D.
- Environmental Sciences – Integrated Research, Ph.D.
- Mechanical Engineering, M.S. or Ph.D.
- Professional Science Master's (PSM)

Step 2: To apply for the NSF NRT Engendering the Spirit of Gadugi at the FEW Nexus program, students must submit an application packet to the Program Coordinator (sbuer@tntech.edu) *after* being accepted to one of the graduate programs from Step 1. The application packet must include the following 6 items:

1. Application Form
2. Letter of Intent
 - The letter should be 1-2 pages in length and must include your intended concentration, autobiographical statement, educational and professional goals, and areas of interest for future research.
3. CV/Resume
4. Statement of Research Interests

- This is a short document that provides a brief history of your past research experience, the current state of your research, and how this relates to your interests in research at the FEW (Food-Energy-Water) Nexus. This document should be approximately 1 to 2 pages.

5. Program Eligibility

- An explanation of why you are eligible and applying for the NSF NRT fellowship. Refer to the eligibility factors listed below, as well as additional criteria given under the “Eligibility” heading at the end of this document.
 - Have an interest in and commitment to place-based research in partnering with indigenous, Appalachian, and rural communities.
 - Have an interest in and commitment to indigenous and rural knowledge systems.
 - Evidence of experience in and/or commitment to transforming challenges at the food-energy-water nexus.
 - Commitment to integrating indigenous, rural, and Western sciences into holistic learning processes.
 - Demonstrate character, motivation and ability to succeed in graduate studies based on academic record and a written essay.

6. Description of Your Collaborative Learning Philosophy

- The collaborative learning philosophy statement articulates student beliefs about the importance of interacting with others (peers, colleagues, mentors, etc.) and how that translates to learning. This document should be approximately 1 double-spaced page in length.

7. Letters of Recommendation

- Submit three letters of recommendation for your potential success related to this program.

Please note the specific requirements from the National Science Foundation NRT program for fellowship recipients:

- *NRT trainees must be master’s and/or doctoral STEM students in a research-based degree program that requires a thesis or dissertation.*
- *NRT stipends and support for customary costs of education (tuition and required fees) are limited to U.S. citizens, nationals and permanent residents. However, international students can participate as non-stipend-supported NRT trainees or as non-trainees.*

<https://www.nsf.gov/pubs/2021/nsf21536/nsf21536.htm#:~:text=NRT%20trainees%20must%20be%20master's,requires%20a%20thesis%20or%20dissertation.>

Eligibility Requirements

Who should apply during an open application period?

Applicants can be prospective students who would first apply to a graduate degree program for admission before applying for the NRT program and/or fellowship. Current students at Tennessee Tech who are interested in the program can also apply but will need to confirm their eligibility with the Program Coordinator.

Eligible applicants interested in applying to graduate school as well as current graduate students enrolled in programs at Tennessee Tech are also encouraged to apply for the NSF-NRT fellowship.

Please note the specific requirements from the National Science Foundation NRT program for fellowship recipients:

- *NRT trainees must be master's and/or doctoral STEM students in a research-based degree program that requires a thesis or dissertation.*
- *If chosen to participate in the program, you will need to complete the required NRT elements including but not limited to 1) a thesis/dissertation, 2) specific NRT courses, 3) workshops, 4) projects, and 5) other training activities.*
- *If awarded an NRT fellowship, you will need to meet certain commitments required by the NSF NRT guidelines, including having the following items approved and signed by your advisor: 1) letter of intent, 2) statement of your research interests, and 3) an adjusted program of study incorporating the FEW courses. **Items 1, 2, and 3 must be signed by your advisor by the end of the second semester of full-time enrollment.***
- *NRT stipends and support for customary costs of education (tuition and required fees) are limited to U.S. citizens, nationals and permanent residents. However, international students can participate as non-stipend-supported NRT trainees or as non-trainees.*

<https://www.nsf.gov/pubs/2021/nsf21536/nsf21536.htm#:~:text=NRT%20trainees%20must%20be%20master's,requires%20a%20thesis%20or%20dissertation.>

The Fellowship Selection Committee will holistically evaluate applications based upon the fellowship eligibility factors.

Eligibility for Fellowship

In order to be an eligible candidate, applicants must first be admitted to full standing to the Tennessee Tech Graduate School; be a U.S. citizen, national, or permanent resident; and meet at least two of the following factors:

1. Have an interest in and commitment to place-based research in partnering with indigenous, Appalachian, and rural communities.
2. Have an interest in and commitment to indigenous and rural knowledge systems.
3. Evidence of experience in and/or commitment to transforming challenges at the food-energy-water nexus.
4. Commitment to integrating indigenous, rural, and Western sciences into holistic learning processes.

5. Demonstrate character, motivation and ability to succeed in graduate studies based on academic record and a written essay.

Please note that NRT Trainees are not permitted to hold a full-time job outside of this program. Instead, your primary focus will be on 1) your FEW-related research project and 2) engagement with community partners as related to your research project.

Course Expectations

In order to maintain eligibility for the NRT fellowship, students must complete the following NRT coursework in addition to their program-specific program of study:

1. Student Course Requirements

a. Number of Required NRT Courses

- i. Master's Students – 5
 - 4 Core NRT Courses + 1 Elective
- ii. PhD Students – 6
 - 4 Core NRT Courses + 2 Electives

b. Core NRT Courses – Required

- i. CHE 6100: Intro to FEW (1 Cr.)
- ii. SOC/HIST 6100: Interdisciplinary Cultural Training (3 Cr.)
- iii. CHE 6130: FEW Nexus Challenge (3 Cr.)
- iv. CHE 6150: Interdisciplinary Integration and Techniques (3 Cr.)

c. Elective NRT Courses

- i. CHE 6950: Directed Studies – Immersion Experience (3 Cr.)
- ii. CHE 6960: FEW Nexus Capstone (3 Cr.)
- iii. EVSS 6010: Environmental Social Policy (3 Cr.)
- iv. CUED 7200: Food System Programs at the FEW Nexus (3 Cr.)
- v. Energy at the FEW Nexus – *In Development* (3 Cr.)
- vi. EVSI 7970: Special Topics - Water at the FEW Nexus – (3 Cr.)

Conditions of Maintaining Eligibility

A recipient of a full fellowship is expected to devote 20 hours per week to research or teaching. Full fellowship pays tuition, fees and stipend at the rate set by the NSF NRT program (\$34,000 annually). Fellowship funding is contingent upon available funding from the NSF and meeting all stipulated requirements.

The courses enrolled must count toward the degree and must be approved by the student's academic advisor. Students must complete a thesis or dissertation.

Fees will not be paid for audit courses, repeat courses, personal enrichment courses, undergraduate courses, certification courses, or more than six hours of thesis, or 24 hours of research and dissertation. You may not deviate from your approved program of study without consulting with the Graduate College. The fellowship covers only IN-STATE fees. If the student receives a funded Graduate or Teaching Assistantship, they will be excluded from receiving the NSF-NRT FEW Fellowship.

- Students in 'provisional' status are not eligible for this fellowship.
- This award only applies towards one graduate degree.
- Tennessee Tech University is under no obligation to continue the fellowship if the student transfers to another degree program or degree classification, or if funds are not available.
- Preference will be given to students who meet the above criteria as this fellowship is funded by specific NSF initiatives.
- Students cannot be relatives of Tennessee Tech University employees.
- For more information contact the College of Graduate Studies at 931-372-3233.