Training programs for undergraduates

Science, Technology, Engineering and Mathematics (STEM) Program
DOD - AFOSR
Target audience: K-12, undergraduates, graduate students, veterans
Goals: Training, outreach, program development in STEM
https://www.grants.gov/search-results-detail/351854
Deadline: 4/12/2024
Amount Upper: $450,000 USD
Amount Note: Proposals may not exceed three (3) years in duration; that is, one (1) Base Year with two (2) Option Years. Proposals may not exceed $150,000 in funding per year; that is, the sum of $450,000 for all three years.
The Air Force Office of Scientific Research (AFOSR) seeks a broad range of applications for augmenting existing and/or developing innovative solutions that directly maintain and/or cultivate a diverse, world-class Science, Technology, Engineering and Mathematics (STEM) workforce to maintain the U.S. Air Force and Space Force's technological superiority. The goal of proposed efforts must provide solutions that establish, build, and/or maintain STEM educational pathways and workforce opportunities for diverse U.S. citizens directly relevant to AFOSR science and technology areas.

As the capacity of the Department of the Air Force (DAF) Science and Technology (S&T) workforce is interconnected with STEM education and outreach, AFOSR recognizes the need to support efforts that can jointly improve STEM student outcomes and align education and outreach efforts with DAF S&T current and future workforce needs. This announcement explicitly encourages projects that improve the capacity of education systems and communities to create impactful STEM educational experiences for students of all ages and the air and space related workforce. Projects must aim to increase engagement in STEM, from students to the current workforce, and enhance people with needed DAF STEM skills, knowledge and abilities. AFOSR encourages applications to utilize current STEM education research for informing project design and advancing STEM careers and opportunities of DAF relevance.

This FOA is specifically seeking STEM education and outreach projects that address scientific and technical areas identified in the following thrust areas. Project scope may range in size and complexity. While not a formal requirement or program focus of this FOA, applicants are strongly encouraged to consider under-represented and under-served populations including women and minorities in project plans. Special audience priority areas may include, but not be limited to, military connected students, veteran initiatives, and education systems integral to DAF science and technology.

AFOSR STEM topic areas include:

Engineering and Complex Systems
Information and Networks
Physical Sciences
Chemistry
Biological Sciences

STEM interests include a broad range of STEM educational and training opportunities for career and workforce development, including but not limited to:

- Internships for veterans and underrepresented groups in STEM
- Professional development opportunities
- Programs to stimulate analytical/thinking skills
- Development of educational resources
- STEM education outreach activities
- Education and community engagement workshops
- Target age groups may require different levels of educational tools
- Coordinating and partnering with activities and organizations that support DAF research areas

DoD Research and Education Program for Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI)
DOD - Army
Target audience: undergraduates
Goal: Training, research
https://www.grants.gov/web/grants/view-opportunity.html?oppId=316548
Deadline: 4/30/2024
30 Apr 2024 - Confirmed / sponsor 4:00 PM ET
Amount Upper: $100,000,000 USD
The CCDC ARL invites applications/proposals from covered educational institutions for research and education programs that will meet the following objectives:

a. Enhance research and engineering capabilities in areas important to national defense;
b. Increase the number of graduates in STEM disciplines; and
c. Encourage research and education collaborations with other institutions of higher education and with defense organizations.

Support for research, development, testing, evaluation, or educational enhancements will be through the competitive awarding of grants or cooperative agreements.

Department of Navy (DoN) Science, Technology, Engineering & Mathematics (STEM), Education and Workforce Program
DOD - ONR
Target audience: undergraduates, graduate students
Goal: Training, research
https://www.grants.gov/search-results-detail/351554
Deadlines: 4/12/2024; 08/30/24
Amount Upper: $600,000 USD
Amount Note: Anticipated Number of Awards: 8
This FOA is for STEM education programs and activities, which is formal or informal education that is primarily focused on physical and natural sciences, technology, engineering, social sciences, and mathematics disciplines, topics, or issues (including environmental science education or stewardship).

STEM education programs and activities that could be supported by this FOA include one or more of the following as the primary objective:

- Develop learners's knowledge, skill, or interest in STEM
- Attract students to pursue certifications, licenses, or degrees (two-year degrees through postdoctoral degrees) or careers in STEM fields.
- Provide growth and research opportunities for post-secondary, college and graduate students in STEM fields, such as working with researchers or conducting research that is primarily intended to further education.
- Improve mentor/educator (K-12 pre-service or in-service, post-secondary, and informal) quality in STEM areas.
- Improve or expand the capacity of institutions to promote or foster STEM fields.

Office of Naval Research (ONR) Science, Technology, Engineering and Mathematic (STEM) Program
DOD - ONR
Target audience: undergraduates, graduate students
Goal: Training, research
https://www.grants.gov/web/grants/view-opportunity.html?oppId=347274
Deadline: 4/2/2024
02 Apr 2024 - Confirmed / sponsor 11:59 PM ET
Note: White Papers are NOT being solicited but ARE OPTIONAL if you wish to submit before submitting a proposal. Offerors should consult the cognizant ONR STEM Point of Contact for each technology area regard
This FOA is for STEM education programs and activities, which is formal or informal education that is primarily focused on physical and natural sciences, technology, engineering, social sciences, and mathematics disciplines, topics, or issues (including environmental science education or stewardship). STEM education programs and activities that could be supported by this FOA include one or more of the following as the primary objective:

- Develop learners's knowledge, skill, or interest in STEM.
- Attract students to pursue certifications, licenses, or degrees (two-year degrees through postdoctoral degrees) or careers in STEM fields.
- Provide growth and research opportunities for post-secondary, college and graduate students in STEM fields, such as working with researchers or conducting research that is primarily intended to further education.
- Improve mentor/educator (K-12 pre-service or in-service, post-secondary, and informal) quality in STEM areas.
- Improve or expand the capacity of institutions to promote or foster STEM fields.

This FOA will not consider applications for research, with the exception of those whose primary purpose is intended to further education (as described in third bullet above) and that are not expected to generate intellectual property.

Multidisciplinary Research Program of the University Research Initiative (MURI)
DOD - ONR
Target audience: undergraduates, graduate students
Goal: Research
https://grants.gov/search-results-detail/352583
Deadline: White papers are due May 17, 2024; Full applications are due September 6, 2024
CONTACT_NAME: Anastasia Lenfest
CONTACT EMAIL: anastasia.e.lenfest.civ@us.navy.mil
Amount Upper: $1,500,000 USD
Amount Note: The total amount of funding for the five years available for grants resulting from this MURI FOA is estimated to be approximately $276 million dollars pending out-year appropriations. MURI awards are contingent on availability of funds, the specific topic, and the scope of the proposed work. Typical annual funding per grant is in the $1.25M to $1.5M range.

The MURI program supports basic research in science and engineering at U.S. institutions of higher education (hereafter referred to as "universities") that is of potential interest to DoD. The program is focused on multidisciplinary research efforts where more than one traditional discipline interacts to provide rapid advances in scientific areas of interest to the DoD. As defined in the DoD Financial Management Regulation, Basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress.

Office of Naval Research areas of interest
Topic 17: Fundamental Limits of Distributed Entangled Quantum Sensing
Topic 18: Conceptual and Computational Methods for Exploiting Foundation Models for Perception
Topic 19: Ionosphere Impacts from Tropospheric Gravity Wave Generation
Topic 20: Coastal Processes & Permafrost Erosion in the New Arctic
Topic 21: Turbulent Flow over Soft Fouling & Compliant Surfaces
Topic 22: Piezoceramics with Organized Macro-Symmetry (POMS) via Templated Grain Growth
Topic 23: Measuring, Modeling, and Manipulating Variability in Judgments and Decision Making
Topic 24: Smooth, Agile, and Economical: Toward an Integrated Biomechanics of Movement
Topic 25: Non-Equilibrium Energy Propagation/Transfer in Condensed-Phase Exothermic Reactions
Topic 26: Safety of Intelligent Autonomous Systems under Dynamic Conditions

Multidisciplinary Research Program of the University Research Initiative (MURI)
DOD - Army
Target audience: undergraduates, graduate students
Goal: Research
https://grants.gov/search-results-detail/352613
Deadline: White papers are due May 17, 2024; Full applications are due September 6, 2024
CONTACT_NAME: Dr. Sue Kase
CONTACT EMAIL: usarmy.rtp.devcom-arl.mbx.aro-muri@army.mil
Amount Upper: $1,500,000 USD
Amount Note: The total amount of funding for the five years available for grants resulting from this MURI FOA is estimated to be approximately $276 million dollars pending out-year appropriations. MURI awards are contingent on availability of funds, the specific topic, and the scope of the proposed work. Typical annual funding per grant is in the $1.25M to $1.5M range.

The MURI program supports basic research in science and engineering at U.S. institutions of higher education (hereafter referred to as "universities") that is of potential interest to DoD. The program is focused on multidisciplinary research efforts where more than one traditional discipline interacts to provide rapid advances in scientific areas of interest to the DoD. As defined in the DoD Financial Management Regulation, Basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress.

Army Research Office areas of interest:
Topic 9: Quantum Machine Learning Foundations for Quantum Data Processing
Topic 10: In Living Color: Structural Color in Engineered Living Systems
Topic 11: Large-scale Bi-directional Control for Hybrid Adaptive Networks
Topic 12: Electro-momentum Coupled Piezoelectric Metamaterials for Tunable Acoustic Detection
Topic 13: Actuation of Polymeric Degradation via Biotoxin Recognition in Complex Environments
Topic 14: Defect Phase Dynamics: A New Paradigm for Designing, Predicting, and Manipulating Material Properties
Topic 15: Inferring Solid-Gas Interphase Responses in Transient Flows
Topic 16: Quantum Simulators for Materials Design

Multidisciplinary Research Program of the University Research Initiative (MURI)
DOD - AFOSR
Target audience: undergraduates, graduate students
Goal: Research
https://grants.gov/search-results-detail/352609
Deadline: White papers are due May 17, 2024; Full applications are due September 6, 2024
Amount Upper: $1,500,000 USD
Amount Note: The total amount of funding for the five years available for grants resulting from this MURI FOA is estimated to be approximately $276 million dollars pending out-year appropriations. MURI awards are contingent on availability of funds, the specific topic, and the scope of the proposed work. Typical annual funding per grant is in the $1.25M to $1.5M range.
CONTACT_NAME: Ms. Katie Wisecarver
CONTACT EMAIL: afosr.rtb.muri@us.af.mil

The MURI program supports basic research in science and engineering at U.S. institutions of higher education (hereafter referred to as "universities") that is of potential interest to DoD. The program is focused on multidisciplinary research efforts where more than one traditional discipline interacts to provide rapid advances in scientific areas of interest to the DoD. As defined in the DoD Financial Management Regulation, Basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress.

Air Force Office of Scientific Research areas of interest:

- Topic 1: Novel Transport Properties in Superatom-based Materials
- Topic 2: Moiré-Engineered Oxide Bicrystals
- Topic 3: Energy and Information Processing in Biological Organisms
- Topic 4: Biology the Builder: Understanding the Evolution of Structural Material Synthesis Across Species
- Topic 5: Mathematical Control and Systems Theory for Soft Robotics
- Topic 6: Principles of Non-reciprocal Quantum Materials and Tunable Superconducting Diodes
- Topic 7: N-qubit Gates
- Topic 8: Hot Solid-State Qubits

Fulbright-Hays Group Projects Abroad (GPA) Program - Long-Term Projects, Assistance Listing Number 84.021B

ED

International Foreign Language Education (OPE/IFLE)

Office of Postsecondary Education (OPE)

United States Department of Education (ED)

Target audience: faculty, undergraduates, graduate students

Goal: Research

https://www.grants.gov/search-results-detail/351705

Deadline: 3/18/2024

Amount Upper: $300,000 USD

Amount Note: Expected Number of Awards: 10

The purpose of the Fulbright-Hays GPA Program is to promote, improve, and develop the study of modern foreign languages and area studies in the United States. The program provides opportunities for faculty, teachers, and undergraduate and graduate students to conduct group projects overseas. Projects may include either (1) short-term seminars, curriculum development, or group research or study, or (2) long-term advanced intensive language programs.

GPA long-term projects are advanced overseas intensive language programs designed by the applicant that may be carried out during a full year, an academic year, a semester, a trimester, a quarter, or a summer. GPA long-term projects provide participants an opportunity to use and strengthen their advanced language training while experiencing the culture in the foreign country. Participants should have successfully completed at least 2 academic years of training in the language to be studied to be eligible to participate in a GPA intensive advanced language training program. In addition, the language to be studied must be indigenous to the host country and maximum use must be made of local institutions and personnel (34 CFR 664.14).

Fulbright-Hays Group Projects Abroad (GPA) Program - Short-Term Projects, Assistance Listing Number 84.021A

International Foreign Language Education (OPE/IFLE)
Office of Postsecondary Education (OPE)
United States Department of Education (ED)

Target audience: faculty, undergraduate students, graduate students
Goal: Research
https://www.grants.gov/search-results-detail/351704
Deadline: 3/18/2024
Amount Upper: $180,000 USD
Amount Note: Expected Number of Awards: 20

The purpose of the Fulbright-Hays GPA Program is to promote, improve, and develop the study of modern foreign languages and area studies in the United States. The program provides opportunities for faculty, teachers, and undergraduate and graduate students to conduct group projects overseas. Projects may include either (1) short-term seminars, curriculum development, or group research or study, or (2) long-term advanced intensive language programs.

There are three types of GPA short-term projects: (1) short-term seminar projects of 4 to 6 weeks in length designed by the applicant to help participants integrate international studies into the curriculum at an institution of higher education (IHE) or a school system when they return to the United States, by focusing on a particular aspect of area studies, such as the culture of an area or country of study (34 CFR 664.11); (2) curriculum development projects of 4 to 8 weeks in length that provide participants the opportunity to acquire resource materials for curriculum development in modern foreign language and area studies for use and dissemination in the United States (34 CFR 664.12); and (3) group research or study projects of 3 to 12 months in duration designed to give participants the opportunity to undertake research or study in a foreign country (34 CFR 664.13).

Undergraduate Scholarship Program (UGSP)
National Institutes of Health (NIH)
Office of the Director (OD)
Office of Intramural Training and Education
Target audience: undergraduate students
Goal: Research
https://www.training.nih.gov/programs/ugsp
Deadline: 3/29/2024
$20,000 USD
Amount Upper: $80,000 USD
Amount Note: The NIH UGSP will pay up to $20,000 per academic year in tuition, educational expenses, and reasonable living expenses to scholarship recipients. Scholarships are awarded for 1 year, and can be renewed up to 4 years.
The National Institutes of Health (NIH) Undergraduate Scholarship Program (UGSP) offers competitive scholarships to students from disadvantaged backgrounds who are committed to careers in biomedical, behavioral, and social science health-related research. The program offers:

- Scholarship support,
- Paid research training at the NIH during the summer,
- Paid employment and training at the NIH after graduation.

National Institute of General Medical Sciences (NIGMS) Bridges to the Baccalaureate Research Training Program (T34)
NIH
NIGMS
Target audience: undergraduate students
Goal: training
https://grants.nih.gov/grants/guide/pa-files/PAR-22-125.html
Deadline: 9/25/2025

The goal of the Bridges to the Baccalaureate Research Training Program is to provide structured activities to prepare a diverse cohort of research-oriented students to transfer from associate degree-granting institutions to baccalaureate degree-granting institutions and complete a baccalaureate degree in disciplines related to the biomedical sciences. This funding opportunity announcement (FOA) provides support to eligible, domestic institutions to develop and implement effective, evidence-informed approaches to biomedical training and mentoring that will keep pace with the rapid evolution of the research enterprise.

NIGMS expects that the proposed research training programs will incorporate didactic, research, mentoring, and career development elements. This program requires strong partnerships between at least two post-secondary educational institutions offering science, technology, engineering, or mathematics (STEM) degrees. At least one partner must be an institution that offers the associate degree as the highest STEM degree and the other partner(s) must offer baccalaureate degrees in biomedically relevant STEM fields. Upon completion of the Bridges to the Baccalaureate Research Training program, trainees are expected to be well-positioned to pursue research-oriented biomedical higher degree programs or enter careers in the biomedical research workforce.

Awards may be for project periods up to five years in duration and are renewable.

Training related expenses are limited to a maximum of $10,000/trainee/year. The maximum cap for the TRE portion of the proposed budget is $100,000/year.

Allowable costs include those associated with the following:

- Skills development training activities (e.g., focusing on quantitative and computational, problem-solving, critical thinking, scientific writing, effective communication, and project management);
- Seminar speakers, who will serve as role models to the trainees
- Training or mentoring interventions designed to increase persistence in research (e.g., those designed to increase science identity, self-efficacy and a sense of belonging in the scientific community);
- Salary support for the PD(s)/PI(s). Typically, salary support does not exceed 1.8 person months (i.e., 15% effort on a 12-month basis) in total for all PD(s)/PI(s) depending on the size and scope of the program;
- Salary support for administrative personnel. Typically, the total combined salary support for the program administrator/program coordinator and/or program assistant/clerical support does not exceed 3.0 person months (i.e., 25% effort on a 12-month basis) depending on the size and scope of the program;
- Limited program evaluation costs (typically, up to $3,000 for the 5-year training grant period) and other program-related expenses may be included within the budget for training-related expenses.

Indirect/(Facilities & Administrative) costs are reimbursed at 8% of modified total direct costs.

Enhancing Science, Technology, EnginEering, and Math Educational Diversity (ESTEEMED) Research Education Experiences (R25 Clinical Trial Not Allowed)
National Institutes of Health (NIH)
Target audience: undergraduates
Goal: training
https://grants.nih.gov/grants/guide/pa-files/PAR-23-114.html
Letter of intent is due: 12/17/2024
Full proposal deadline: 1/17/2025
Note: All applications are due by 5:00 PM local time of applicant organization.
Amount Note: An applicant may request direct costs of up to $325,000 per year. Because the nature and scope of the proposed research education program will vary from application to application, it is anticipated that the size of each award will vary. The total project period for an application submitted in response to this funding opportunity may not exceed 4 years.

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The overarching goal of this R25 program is to support educational activities that encourage individuals from diverse backgrounds, including those from groups underrepresented in the biomedical and behavioral sciences, to pursue further studies or careers in research.

To accomplish the stated over-arching goal, this FOA will support educational activities with a primary focus on: **Courses for Skills Development** and **Research Experiences.** The ESTEEMED program is designed to foster the development of undergraduate freshmen and sophomores from diverse backgrounds to pursue further studies and careers in bioengineering or STEM fields relevant to NIBIB's scientific mission. Applications are encouraged to propose integrated educational activities that include 3 elements: **a summer bridge program for incoming freshmen**, **and in the freshman and sophomore years, academic year activities and summer research experiences**. The ESTEEMED program is intended to expose students to bioengineering research early in their college careers while also providing students didactic, mentoring and career development opportunities. This will prepare students to join, in their junior and senior years, an honors program that promotes STEM and entrance into a Ph.D. program. The ultimate goal is for the participants to pursue a doctoral degree and a subsequent research career in bioengineering or NIBIB-relevant field.

NIH Blueprint and BRAIN Initiative Program for Enhancing Neuroscience Diversity through Undergraduate Research Education Experiences (BP BRAIN-ENDURE) (R25 Clinical Trial Not Allowed)
NIH
Target audience: Undergraduates
Goal: Training, research
https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-24-014.html
Deadline: 2/10/2025

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The overarching goal of this R25 program is to support educational activities that encourage individuals from diverse backgrounds, including those from groups underrepresented in the biomedical and behavioral sciences, to pursue further studies or careers in research.
To accomplish the stated over-arching goal, this NOFO will support educational activities with a primary focus on:

Courses for Skills Development
Research Experiences
Mentoring Activities

The fully integrated educational activities should prepare undergraduate students from diverse backgrounds, including those from groups underrepresented in biomedical and behavioral sciences, to enter Ph.D. degree programs in neurosciences. To accomplish this goal, this initiative will provide institutional awards to develop neuroscience research education programs comprised of collaborative partnerships integrated across different educational institution types.
Each partnership must include:

a) one or more institutions that either: 1) have a historical and current mission to educate students from any of the populations that have been identified as underrepresented in biomedical research as defined by the National Science Foundation (NSF), see http://www.nsf.gov/statistics/wmpd/) (i.e., African Americans or Blacks, Hispanic or Latino Americans, American Indians, Alaska Natives, Native Hawaiians, U.S. Pacific Islanders, and persons with disabilities) or 2) have a documented track record of recruiting, training and/or educating, and graduating underrepresented students as defined by NSF (see above), which has resulted in a historically documented contribution by the institution to the national pool of graduates from underrepresented backgrounds who pursue biomedical research careers;
b) a research-intensive institution that has an established neuroscience or neuroscience-related program;
c) integrated curriculum/academic enhancement and research experience activities designed to increase participants' preparation to enter doctoral programs in the neurosciences; and
d) well-described plans to provide early communication and interaction between participating students and graduate neuroscience programs across the country.

The requested direct costs must be reasonable, well documented, fully justified and commensurate with the scope of the proposed program. The average cost per program is estimated between $300K - $400K direct costs per year.

Summer Undergraduate Research Fellowship (SURF) NIST Boulder Programs
NIST
National Institute of Standards and Technology (NIST)
United States Department of Commerce (DOC)
Target audience: undergraduates
Goal: research
https://www.nist.gov/surf/surf-boulder
Deadline: 1/31/2025
Students are invited to participate in the Boulder, Colorado, Laboratories' National Institute of Standards and Technology (NIST) Summer Undergraduate Research Fellowship (SURF) program for students majoring in science, mathematics, and engineering.

Opportunities are available across many STEM disciplines in the following NIST laboratories:

- Communications Technology Laboratory (CTL)
- Information Technology Laboratory (ITL)
- Material Measurement Laboratory (MML)
- Physical Measurement Laboratory (PML)

Computer and Information Science and Engineering Research Expansion Program
National Science Foundation (NSF)
Directorate for Computer and Information Science and Engineering
Target audience: undergraduates, graduate students, postdocs, faculty
Goal: research enhancement, capacity building
https://nsf-gov-resources.nsf.gov/files/nsf24536.pdf
Program page
Deadlines: May 2, 2024; February 7, 2025; February 2026
With this solicitation, the National Science Foundation's (NSF) Directorate for Computer and Information Science and Engineering (CISE) is continuing its support of research expansion for Minority-Serving Institutions (MSIs). The goal of the CISE MSI program is to broaden participation by increasing the number of CISE-funded research projects from MSIs and to develop research capacity toward successful submissions to core CISE programs. MSIs are central to inclusive excellence: they foster innovation, cultivate current and future undergraduate and graduate computer and information science and engineering talent, and bolster long-term U.S. competitiveness.
Anticipated number, duration, and size of new awards:

Thread 1: Research Capacity Building Projects (RCBP)
Number of awards: 4-5
Project length: 2-3 years
Award size: Up to $400,000
Thread 2: Research Demonstration Projects (RDP)
Number of awards: 5-7
Project length: 2-3 years
Award size: Up to $600,000
Thread 3: Research Partnerships Enhancement Projects (RPEP)
Number of awards: 3-4
Project length: 3-4 years
Award size: $600,000 to $1,200,000
Thread 4: Research Planning Projects (RPP)
Number of awards: 3-4
Project length: 2 years
Award size: $100,000 to $200,000

Proposals may be submitted only by accredited Institutions of Higher Education (IHEs) that are recognized as **Minority Serving Institutions** (https://www2.ed.gov/about/oces/list/ocr/edlite-minorityinst.html).

EHR Core Research (ECR): Building Capacity in STEM Education Research (ECR: BCSER)
National Science Foundation (NSF)
Directorate for Education and Human Resources (EHR)
Target audience: faculty, undergraduates, graduate students
Goal: research, training
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22548
Program page
Deadline: February 21, 2025
Amount Upper: $1,000,000 USD
Amount Note: NSF expects to make 29 standard or continuing grant awards. The ECR: BCSER competition anticipates making the following awards:
Individual Investigator Development in STEM Education Research: Up to 19 awards. The maximum award amount is $350,000 for three years.
Institutes for Methods and Practices in STEM Education Research: Up to 5 awards. The maximum award amount for is $1,000,000 for three years.
Conference: Up to 5 awards. The typical award amount for a conference is $25,000 to $100,000.
Anticipated Funding Amount: $12,000,000

ECR's Building Capacity in STEM Education Research (ECR: BCSER) supports projects that build investigators's capacity to carry out high-quality STEM education research that will enhance the nation's STEM education enterprise. In addition, ECR: BCSER seeks to broaden the pool of researchers who can advance knowledge regarding STEM learning and learning environments, broadening participation in STEM fields, and STEM workforce development. Researchers of races and ethnicities, genders, sexual orientations, and abilities who are currently underrepresented in their participation in STEM education research and the STEM workforce, as well as faculty at minority-serving and two-year institutions, are particularly encouraged to submit proposals.

Specifically, ECR: BCSER supports activities that enable researchers to expand their areas of expertise and acquire the requisite knowledge and skills to conduct rigorous research in STEM education. Career development may be accomplished through investigator-initiated professional development and research projects or through institutes that enable researchers to integrate methodological strategies with theoretical and practical issues in STEM education.

EMpowering BRoader Academic Capacity and Education (EMBRACE)
National Science Foundation (NSF)
Directorate for Geosciences (GEO)
Target audience: faculty, graduate students, undergraduate students
Goal: research, training
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf23617
Program page
Deadline: May 15, 2024
Amount Note: Estimated Number of Awards: 20 to 25
The NSF Directorate for Geosciences (GEO) EMpowering BRoader Academic Capacity and Education (EMBRACE) program seeks to support research and educational efforts at "non-R1" institutions, including non-R1 minority serving institutions (MSIs), two-year colleges (2YCs), primarily undergraduate institutions (PUIs), and emerging research and masters level institutions (see Carnegie Classification and Integrated Postsecondary Education Data System). With this solicitation, the EMBRACE program aims to mitigate multiple barriers faced by faculty members in geosciences and related fields at non-R1 institutions in submitting and obtaining federal funding (e.g., high teaching loads, increased expectations for teaching and mentoring, low or no start-up packages, and limited institutional infrastructure and research support personnel).

The EMBRACE program supports two categories of proposals: **Seed** and **Growth**.

Seed proposals can request up to two years of funding for faculty members in GEO-related disciplines at non-R1 institutions to (1) initiate research and/or education programs at their own institutions; and/or (2) build or catalyze research collaborations or partnerships:

within the same institution; or
across peer institutions; or
with research-intensive institutions; or
with industry or other non-academic entities; or
any combination mentioned above.

Growth proposals can request up to four years of funding to enable faculty members at non-R1 institutions to establish independent GEO-related disciplinary research programs. In addition to research, funding may be used to support undergraduate and/or graduate students, post-doctoral scholars, salary (summer, course buyout, sabbatical) and other research related expenses.

Expanding AI Innovation through Capacity Building and Partnerships (ExpandAI)
National Science Foundation (NSF)
Target audience: faculty, graduate students and undergraduates
Goal: infrastructure development and partnerships
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf23506
Program page
Deadline windows:
- June 25, 2024 - October 18, 2024
- January 6, 2025 - March 10, 2025
- March 11, 2025 - June 23, 2025
- June 24, 2025 - October 17, 2025

Eligible MSIs can submit a Concept Outline at any time. Those that have been invited to submit a full proposal can submit a proposal based on that Concept Outline at any time during one of the submission windows listed above (up to one year).

Track 1: ExpandAI Capacity Building Pilots
Capacity Building Pilots (CAP) are planning and growth efforts focused on the establishment of AI activities at the funded MSI and the early exploration of future synergistic partnerships that have the potential to be part of prospective ExpandAI Partnerships. Successful pilots will result in establishing new AI research capacity, education/workforce development in AI, and/or AI infrastructure capacity at the proposing institution and, potentially, a basis for future AI partnerships. CAP activities should plan for engaging appropriate communities to test the feasibility of partnerships as well as developing plans for continuing capacity development. Plans should consider required research infrastructure, plans to leverage established groups in related research areas, and inclusion of faculty training and research experiences that emphasize the diversification of investigators.
Each **Capacity Building Pilots (CAP)** award is anticipated to be a standard grant up to $400,000 total budget over two years.

Track 2: ExpandAI Partnerships

The ExpandAI Partnership (PARTNER) track is an opportunity for MSIs to scale up already-established AI research and/or education programs and to initiate/leverage new collaborations with AI Institutes. These partnerships will be multi-organization collaborations submitted by an MSI and will include a subaward to an AI Institute. PARTNER projects are centered around shared, complementary goals. Proposals will be submitted as single-organizational collaborative proposals. PARTNER proposals may only be submitted by a qualifying MSI as indicated in *Eligible Institutions* in this solicitation.
Each **ExpandAI Partnership (PARTNER)** award is anticipated to be a continuing award in the range of $300,000 to $700,000/year for up to 4 years.

Experiential Learning for Emerging and Novel Technologies
National Science Foundation (NSF)
Target audience: undergraduates, graduate students
Goal: research, training
https://new.nsf.gov/funding/opportunities/experiential-learning-emerging-novel-technologies/nsf23-507/solicitation
Program page
Deadline: September 12, 2024, All Tracks (Pivots, Beginnings, & Explorations); due by 5 p.m. submitters's local time
Amount Upper: $1,000,000 USD
Amount Note: Estimated Number of Awards: 25 to 35
ExLENT awards are expected to be up to three (3) years in duration with a total budget up to $1,000,000.

Anticipated Funding Amount: $30,000,000 Estimated program budget, number of awards and average award size/duration are subject to the availability of funds.

Through this new initiative, the Directorate for Education and Human Resources (EHR) and the newly established Directorate for Technology, Innovation and Partnerships (TIP) seek to support experiential learning opportunities for individuals from diverse professional and educational backgrounds that will increase access to, and interest in, career pathways in emerging technology fields (e.g., advanced manufacturing, advanced wireless, artificial intelligence, biotechnology, quantum information science, semiconductors, and microelectronics). As NSF seeks to support the development of technologies in such fields, similar support will be needed to foster and grow a diverse science, technology, engineering, and mathematics (STEM) workforce to contribute to such innovation. Large scale societal challenges like climate change and clean energy also require a STEM workforce that brings varied perspectives and expertise to further accelerate the translation of science and engineering discoveries into large-scale solutions. Moreover, as current and new emerging technologies continue to evolve, unforeseen issues around security, safety and privacy will impact the preparation of the workforce. Emerging technologies are also dynamic and rapidly changing, with career entry and advancement often requiring "learning-by-doing" experience, even for those with some STEM education. Therefore, NSF recognizes that a competitive emerging technology workforce must include individuals from traditional and nontraditional education pathways as well as those individuals who may have "stopped" out of traditional educational pathways.

The ExLENT program will support inclusive experiential learning opportunities designed to provide cohorts of diverse learners with the crucial skills needed to succeed in emerging technology fields and prepare them to enter the workforce ready to solve our Nation's most pressing scientific and societal challenges. Furthermore, the ExLENT program will directly support NSF's priority to build a diverse workforce1 in emerging technologies to assure the Nation's competitiveness in STEM.

Key goals of the program are to (1) expand access to career-enhancing experiential learning opportunities for a broader, more diverse population, including adult learners interested in re-skilling and/or upskilling (e.g., those who face or who have faced significant barriers to accessing a formal STEM education); (2) promote cross sector partnerships between organizations in emerging technology fields and those with expertise in workforce development; and (3) develop a workforce aligned with regional economies based on emerging technologies across the Nation, in alignment with the mission of the TIP Directorate.

Geoscience Opportunities for Leadership in Diversity (GOLD)
National Science Foundation (NSF)
Apply to PD 21-178Y (see Program Page below)
Target audience: high school students, undergraduates, graduate students
Goal:
Program Page
Deadlines: April 26, 2024 (target date), fourth Friday in April, annually thereafter
October 25, 2024 (target date), fourth Friday in April, annually thereafter

GEO encourages projects that will develop efforts and training that focus on the creation of BAJEDI (Belonging Accessibility Justice Equity Diversity and Inclusion) leaders through scaling of model professional development (PD) programs, identifying barriers that exist within academia and/or the geosciences that prevent the development of diversity champions, and the employment of strategies that will create and sustain cohorts of diversity leaders to maximize collective impact in the geoscience ecosystem.

Examples of focus areas for PD centered proposals could include: 1) training in BAJEDI for graduate students and postdocs who will soon be on the job market, 2) creation of curriculum and standards for safe, equitable and inclusive education and research practices, 3) development of guidance that would assist geoscience academic and research units in developing or implementing BAJEDI plans, and 4) identification and fostering of practices related to the valuation of BAJEDI leaders and their activities in institutional promotion systems.

Geoscience Capacity Building at Minority Serving Institutions (MSIs). With the recognition that Minority Serving Institutions (MSIs) operate with intentionality and holistic support of students (NASEM 2019), GEO also welcomes proposals that envision new efforts to create educational or degree granting geoscience programs at MSIs or scale existing geoscience programs into graduate programs at MSIs with the following elements in mind:

- Consideration of the necessary steps to create or scale an educational or degree granting geoscience program through partnerships and collaborations, with an emphasis on collaborative infrastructure as defined under the NSF INCLUDES Program.
- Development of pilot bridge programs (high school to undergraduate, undergraduate to graduate and graduate to workforce) to grow the pool of potential geoscience program majors at MSIs and prepare them to be geoscience professionals.
- Identification and reduction of barriers (e.g., grants infrastructure or institutional policies) that may hinder the creation and sustainability of educational and degree granting geoscience programs at MSIs.
- Creation of a coordinating unit to assist in supporting or building grants management infrastructure at MSIs.

Improving Undergraduate STEM Education: Education and Human Resources (IUSE: EHR)
National Science Foundation (NSF)
Target audience: undergraduates
Goal: training, research
https://new.nsf.gov/funding/opportunities/improving-undergraduate-stem-education-directorate/nsf23-510/solicitation
Program page

Deadlines: July 17, 2024; third Wednesday in July, annually thereafter
Institutional and Community Transformation (Level 2) proposals and Engaged Student Learning (Level 2 and Level 3) proposals
January 15, 2025; third Wednesday in January, annually thereafter
Institutional and Community Transformation (Capacity-Building and Level 1) proposals and Engaged Student Learning (Level 1) proposals

This program announcement is structured around two tracks: (1) **Engaged Student Learning** and (2) **Institutional and Community Transformation**, each with several levels of scope, scale, and funding are available within each track.

Track 1: Engaged Student Learning

The Engaged Student Learning (ESL) track focuses on design, development, and research projects that involve the creation, exploration, or implementation of tools, resources, and models. Projects must show high potential to increase student engagement and learning in STEM. Projects may focus directly on students or indirectly serve students through faculty professional development or research on teaching and learning

ESL Level 1 projects have a maximum award of $400,000 and a maximum duration of three years. Awards at this level will support early-stage or exploratory research projects, as well as projects that propose adaptation of existing pedagogies and methodologies in novel environments on a small scale.

ESL Level 2 project awards range from $400,001 to $750,000 and have a maximum duration of three years. ESL Level 2 projects are intended to support design and development efforts or impact studies to improve student learning, including department-wide reform efforts, interdisciplinary or multi-disciplinary collaborations, or partnerships across institutions.

ESL Level 3 project awards range from $750,001 to $2 million and have a maximum duration of five years. Projects at this scale and scope are expected to benefit large numbers of students or broad communities of faculty and instructors through large-scale design and development studies or impact research.

Track 2: Institutional and Community Transformation

ICT Capacity-Building proposals may be submitted as individual or collaborative projects. The maximum award size is $200,000 for a single institution proposal or $400,000 for a multi-institution proposal. The maximum duration of both single and multi-institutional proposals is two years.

ICT Level 1 proposals have a maximum award size of $400,000 and a maximum duration of three years. Awards at this level are intended for early-stage exploratory projects

ICT Level 2 project awards range from $400,001 to $2 million up to five years. ICT Level 2 awards are intended to support design and development work or impact research

Conferences addressing important challenges in undergraduate STEM education may be submitted at any time following consultation with a program officer.

LSO Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)
National Science Foundation (NSF)
Target audience: K-12, undergraduates, graduate students
Goal: training, research
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22622
Program page
Deadline: October 24, 2024, all components except Conferences
Network Connectors
Design and Development Launch Pilots
Collaborative Change Consortia
Conferences: May 14, 2024 full proposal target dates. Conference proposals may request up to $100,000 for one year**.**
Amount Note: Estimated Number of Awards10 to 15
NSF INCLUDES is a comprehensive, national initiative to enhance U.S. leadership in science, technology, engineering, and mathematics (STEM) discovery and innovation, focused on NSF's commitment to ensuring accessibility and inclusivity in STEM fields, as communicated in the NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026. The vision of NSF INCLUDES is to catalyze the STEM enterprise to work collaboratively for inclusive change, resulting in a STEM workforce that reflects the diversity of the Nation's population. More specifically, NSF INCLUDES seeks to motivate and accelerate collaborative infrastructure building to advance equity and sustain systemic change to broaden participation in STEM fields at scale. Significant advancement in the inclusion of groups that have historically been excluded from or under-served in STEM will result in a new generation of STEM talent and leadership to secure the Nation's future and long-term economic competitiveness.

With this solicitation, NSF offers support for five types of projects that connect and contribute to the National Network: (1) Design and Development Launch Pilots, (2) Collaborative Change Consortia, (3) Alliances, (4) Network Connectors, and (5) Conferences. The NSF INCLUDES National Network is a multifaceted collaboration of agencies, organizations, and individuals working collectively to broaden participation in STEM. The NSF INCLUDES National Network serves as a testbed for designing, implementing, studying, refining, and scaling collaborative change models and is composed of:

- NSF INCLUDES funded projects
- Other NSF funded projects
- Subcommittee on Federal Coordination in STEM Education (FC-STEM) agencies
- Scholars engaged in broadening participation research and evaluation, and
- Organizations that support the development of talent from all sectors of society to build an inclusive STEM workforce.

All NSF INCLUDES funded projects must operationalize five design elements of collaborative infrastructure - (1) shared vision, (2) partnerships, (3) goals and metrics, (4) leadership and communication, and (5) expansion, sustainability, and scale - to create systemic change that will lead to the substantially broadened participation of individuals from historically excluded and undeserved groups in STEM.

International Research Experiences for Students (IRES)
National Science Foundation (NSF)
Office of International Science and Engineering (OISE)
Directorate for Engineering (ENG)
Target audience: undergraduates, graduate students
Goal: research
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf24506
Program page
October 28, 2024 - Confirmed / sponsor
Amount Upper: $750,000 USD
Amount Note: Estimated Number of Awards: 20 to 25
Approximately $12,000,000 in FY 2024, pending availability of funds. Up to $150,000 per year, for a maximum of 5 years, including indirect costs. A typical IRES project is for three years. However, longer duration projects up to 5 years will also be considered.
The International Research Experiences for Students (IRES) program supports international research and research-related activities for U.S. science and engineering students. The IRES program contributes to development of a diverse, globally engaged workforce with world-class skills. IRES focuses on active research participation by undergraduate and/or graduate students in high quality international research, education and professional development experiences in NSF-funded research areas.

The overarching, long-term goals of the IRES program are to enhance U.S. leadership in science and engineering research and education and to strengthen economic competitiveness through training the next generation of science research leaders. IRES focuses on the development of a world-class U.S. STEM workforce through international research experiences for cohorts of U.S. students.

Student participants supported by IRES funds must be citizens, nationals, or permanent residents of the United States. Students do not apply directly to NSF to participate in IRES activities. Students apply to NSF-funded investigators who receive IRES awards. To identify appropriate IRES projects, students should consult the directory of active IRES awards.
All PIs, co-PIs and Senior Personnel on IRES proposals must be from U.S. based organizations. Personnel from international partners should be listed as “non-NSF funded collaborators”. Guidance on information to provide for “non-NSF funded collaborators” is found in Section V.A.

IRES projects engage a group of undergraduate and/or graduate students in active high-quality collaborative research, in principle at an international site with mentorship from international researchers. IRES projects must be organized around a coherent overarching intellectual theme that may involve a single discipline or multiple disciplines funded by NSF.

For all IRES proposals, PIs are strongly encouraged to outline a variety of virtual, hybrid or other alternative approaches to strengthen and maintain international collaboration in addition to travel. It is expected that these approaches will extend collaboration beyond the actual international trip and strengthen IRES proposals overall.

Partnerships for Research Innovation in the Mathematical Sciences (PRIMES)
National Science Foundation (NSF)
Directorate for Mathematical and Physical Sciences
Division of Mathematical Sciences
Target audience: faculty, undergraduates, graduates
Goal: training, research
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf24517
Program page
Deadlines: August 21, 2024. Third Wednesday in August, annually thereafter
February 12, 2025. Second Wednesday in February, Annually Thereafter
Amount Upper: $400,000 USD
Amount Note: Estimated Number of Awards: 4 to 8
In FY 2024 awards are anticipated to be up to $400,000 for two years.
Anticipated Funding Amount: $2,000,000

The NSF Division of Mathematical Sciences' Partnerships for Research Innovation in the Mathematical Sciences program aims to enhance partnerships between minority-serving institutions and DMS-supported Mathematical Sciences Research Institutes. The activity seeks to boost the participation of members of groups underrepresented in the mathematical sciences through their increased involvement in research programs at the institutes.

Racial Equity in STEM Education (EHR Racial Equity)
National Science Foundation (NSF)
Directorate for Education and Human Resources (EHR)
Target audience: K-12, undergraduates, graduate students
Goal: training, research
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22634
Program page
Deadlines: October 8, 2024; October 14, 2025
Note: Proposals due by 5 p.m. submitter's local time
Amount Note: **Estimated Number of Awards:** 15 to 35
Anticipated Funding Amount: $15,000,000 to $25,000,000
This solicitation aligns with the National Science Foundation (NSF) and the Directorate for Education and Human Resources (EHR) long-standing investments in the development of a diverse and well-prepared public and workforce, which was recently reinforced in the NSF Vision: A nation that leads the world in science and engineering research and innovation, to the benefit of all, without barriers to participation (p. 9, NSF 2022-2026 Strategic Plan (https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22068).

The NSF Strategic Plan focuses on ensuring that U.S. research is an inclusive enterprise that benefits from the talent of all sectors of American society – a research enterprise that incorporates the rich demographic and geographic diversity of the nation. The strategic plan recognizes that the more people who engage in science, technology, engineering, and mathematics (STEM) research and the more diverse their backgrounds, the richer the range of questions asked. The result is a greater breadth of discovery and more creative solutions to societal challenges.

Racial inequities often create barriers to STEM knowledge generation, as well as access to and participation in all aspects of STEM education, research, and the workforce. In ongoing efforts to address these disparities, NSF EHR seeks to support bold, groundbreaking, and potentially transformative projects that contribute to advancing racial equity in STEM education and workforce development through practice and/or fundamental or applied research. EHR's mission builds from the NSF Strategic Plan, seeking "to achieve excellence in U.S. science, technology, engineering and mathematics (STEM) education at all levels and in all settings (both formal and informal) in order to support the development of a diverse and well-prepared workforce of scientists, technicians, engineers, mathematicians and educators and a well-informed citizenry that have access to the ideas and tools of science and engineering. The purpose of these activities is to enhance the quality of life of all citizens and the health, prosperity, welfare and security of the nation."

Collectively, proposals funded by this solicitation will:

(1) substantively contribute to institutionalizing effective research-based practices, policies, and outcomes in STEM environments for those who experience inequities caused by systemic racism and the broader community;

(2) advance scholarship and promote racial equity in STEM in ways that expand the array of epistemologies, perspectives, ideas, theoretical and methodological approaches that NSF funds; and

(3) further diversify project leadership (PIs and co-PIs) and institutions funded by NSF.

Research Coordination Networks (RCN)
National Science Foundation (NSF)
Target audience: faculty, undergraduates, graduate students
Goal: developing collaborations
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf23529
Program page
Deadlines: October 8, 2024; October 14, 2025
PIs should consult program websites and contact cognizant program officers and are **encouraged to send a one-page concept paper to EDURacialEquity@nsf.gov in advance of submitting a proposal.**
Note: Submission deadlines vary by program. RCN proposals should be submitted to a particular NSF program according to the program's submission dates; PIs should consult program websites and contact cognizant program officers for guidance.
Amount Note: **Estimated Number of Awards:** 16 to 20. The actual number of awards varies across disciplinary research programs.
Anticipated Funding Amount: $7,500,000 to $12,500,000
The goal of the RCN program is to advance a field or create new directions in research or education by supporting groups of investigators to communicate and coordinate their research, training and educational activities across disciplinary, organizational, geographic, and international boundaries. The RCN program provides opportunities to foster new collaborations, including international partnerships where appropriate, and address interdisciplinary topics. Innovative ideas for implementing novel networking strategies, collaborative technologies, training, broadening participation, and development of community standards for data and meta-data are especially encouraged. RCN awards are not meant to support existing networks; nor are they meant to support the activities of established collaborations. RCN awards also do not support primary research. Rather, the RCN program supports the means by which investigators can share information and ideas; coordinate ongoing or planned research activities; foster synthesis and new collaborations; develop community standards; and in other ways advance science and education through communication and sharing of ideas.

Additional information about the RCN program and its impacts may be found in Porter et al. 2012 Research Coordination Networks: Evidence of the relationship between funded interdisciplinary networking and scholarly impact. BioScience, 62: 282-288

Proposed networking activities directed to the RCN program should focus on a theme to give coherence to the collaboration, such as a broad research question or a particular technology or a unique approach to address a current challenge. PIs are encouraged to consider approaches that enhance the geographic diversity of participation in the chosen theme.

Participating programs in the Directorates for Biological Sciences (BIO), Computer and Information Science and Engineering (CISE), Geosciences (GEO), STEM Education (EDU), Engineering (ENG), Social, Behavioral and Economic Sciences (SBE), and Technology, Innovation and Partnerships (TIP) will accept RCN proposals. PIs are encouraged to discuss suitability of an RCN topic with a program officer that manages the appropriate program. For proposals submitted to the CISE, ENG, SBE and TIP directorates consultation PRIOR to submission is mandatory (see Proposal Preparation instructions for supplementary documents). The NSF Growing Research Access for Nationally Transformative Equity and Diversity (NSF GRANTED) program welcomes inquiries about potential RCN proposals aimed at strengthening the capability of institutions of higher education to develop, submit, and manage research proposals and awards.

Research Coordination Networks in Undergraduate Biology Education (RCN-UBE)
National Science Foundation (NSF)
Target audience: undergraduates
Goal: training
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22522
Program page
Deadline: January 28, 2025; Fourth Tuesday in January, annually thereafter
Amount Note: **Estimated Number of Awards:** 8 to 12; varies across disciplinary research programs and RCN tracks

Anticipated Funding Amount: $6,500,000 to $8,000,000, pending availability of appropriations

The goal of the RCN-UBE program is to link biological research discoveries with innovations in biology education to improve the learning environment in undergraduate biology classrooms. The program seeks to improve undergraduate education by leveraging the power of a collaborative network recognizing that new educational materials and pedagogies can simultaneously teach biological concepts while creating a supportive and engaging learning environment for all. The RCN-UBE program supports groups of investigators to communicate and coordinate their research, training, and education. The theme or focus of an RCN-UBE proposal can be on any topic likely to advance this goal, and activities across disciplinary, organizational, geographic, and international boundaries are encouraged. Acknowledging that students' educational pathways vary, networks that include under-resourced institutions as full, equitable partners are highly desired. Understanding that people from diverse backgrounds bring different experiences and viewpoints, the RCN-UBE program is interested in proposals that include individuals from traditionally underrepresented in biological research and education as members of the steering committee. Lastly, the RCN-UBE program is also interested in developing, testing, and sharing best practices that can transform the online learning environment.

These efforts supported by RCN-UBE are responsive to the national movement to revolutionize undergraduate learning and teaching in the biological sciences as described in the 2009 "Vision and Change in Undergraduate Biology Education" report. Collectively, the RCN-UBE program has contributed to developing and disseminating educational research resources and modules, to forging new collaborations, and to sharing best practices and processes for scalability and sustainability of activities. These efforts have involved a large cadre of faculty, students, and other stakeholders.

In accord with other RCN awards, RCN-UBE awards provide opportunities to address interdisciplinary topics, to explore innovative ideas for implementing novel networking strategies, to explore collaborative technologies, and to develop community standards. RCN-UBE awards do not support existing networks or the activities of established collaborations.

Research Experience for Undergraduates
National Science Foundation (NSF)
Target audience: undergraduates
Goal: training, research
https://new.nsf.gov/funding/opportunities/research-experiences-undergraduates-reu/nsf23-601/solicitation
Program page
Deadlines: August 21, 2024, third Wednesday in August, annually thereafter
The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program.

This solicitation features two mechanisms for supporting student research:

REU Sites are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department or may offer interdisciplinary or multi-department research opportunities with a coherent intellectual theme.

REU Supplements may be included as a component of proposals for new or renewal NSF grants or cooperative agreements or may be requested for ongoing NSF-funded research projects.

REU projects with an international dimension are welcome.

Undergraduate student participants in either REU Sites or REU Supplements must be U.S. citizens, U.S. nationals, or U.S. permanent residents.

Students do not apply to NSF to participate in REU activities, and NSF does not select students for the opportunities. Investigators who receive REU awards establish their own process for receiving and reviewing applications and selecting students, and students follow the instructions provided by each REU Site or REU Supplement to apply. (In some cases, investigators pre-select students for REU Supplements.) To identify appropriate REU Sites, students should consult the directory of active REU Sites on the Web at https://www.nsf.gov/crssprgm/reu/reu_search.cfm.

Workplace Equity for Persons with Disabilities in STEM and STEM Education
National Science Foundation (NSF)
Target audience: undergraduates, graduates, postdocs
Goal: training
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf23593
Program page
Deadline: September 17, 2024; Third Tuesday in September, annually thereafter
Note: Conference, EAGER, and RAPID proposals are accepted before or after the target date. An EAGER or RAPID proposal may only be submitted after receipt of an NSF program officer concurrence email specifying that a proposal may be submitted.
Upper limit of funding: $1,500,000 USD
Amount Note: Estimated Number of Awards: 10 to 20
The Workplace Equity for Persons with Disabilities in STEM and STEM Education solicitation, which is managed by the Division of Equity for Excellence in STEM in the Directorate for STEM Education, supports fundamental, applied, and translational research that advances knowledge and practice about diverse, equitable, inclusive, and accessible STEM and STEM education workplaces and postsecondary training environments for persons with disabilities. Proposals should focus on one or more of the following three research themes: (1) Studying barriers and solutions to diversity, equity, inclusion, and accessibility in STEM and STEM education workplaces and training settings for persons with disabilities; (2) Applying intersectional social identity perspectives to investigate characteristics and conditions of STEM and STEM education workplaces and training environments that limit and/or improve diversity, equity, inclusion, and accessibility for persons with disabilities; and (3) Conducting use-inspired and solution-oriented translational research about diverse, equitable, inclusive, and accessible STEM and STEM Education workplaces and training settings for persons with disabilities.

Research proposals must address key project design components: (1) The inclusion of researchers, experts, and organizations with authentic disability experiences; (2) The identification of disability type(s) to be investigated; (3) The specific STEM and/or STEM education workplaces and postsecondary training settings to be studied; (4) The use of theoretical and/or conceptual frameworks and robust research hypotheses, questions, designs, methodologies, data analyses, and data interpretation; (5) A plan to assess the success of the project; and (6) A plan for the accessible dissemination of knowledge and practice outcomes to traditional and new audiences.

Energy Efficiency and Renewable Energy Science, Technology and Policy Program
ORAU
Oak Ridge Institute for Science and Education (ORISE)
Oak Ridge Associated Universities (ORAU)
Target audience: undergraduates, Master's students, postdocs, faculty in STEM
Goal: research
http://energy.gov/eere/energy-efficiency-and-renewable-energy-science-and-technology-policy-fellowships
Deadline: Applications accepted and reviewed all year.
The EERE STP Program provides an opportunity for highly talented scientists and engineers to participate in policy-related projects at DOE's Office of Energy Efficiency and Renewable Energy in Washington, D.C. and Golden, CO site office. EERE STP participants apply the expertise gained from their education and history of conducting research to new and ongoing EERE initiatives. As a result of their participation on this program, participants are expected to:

- Gain deep insight into the federal government's role in the creation and implementation of policies that affect energy technology development.
- Contribute to the implementation of energy policies by applying their scientific and technical expertise to the development of solutions for problems in areas of energy efficiency and renewable energy.
- Continue their education and involvement in areas that support the EERE mission either in a technical or policy-related role.
- Introduce policy-related knowledge and interest into research facilities supporting the EERE mission.

There are three levels:

Level 1: The stipend rates for Level 1 participants will start at $47,684. The stipend rates for matriculated undergraduates will be competitive with other summer programs.
Level 2: Participants with a Ph.D. will receive a stipend starting at $76,378.
Participants with a Master's degree will start at $58,000.
Level 3: The stipend amount for Level 3 will be based on the rate for participants plus a factor for years of experience after the receipt of the graduate degree.

Participants will receive an education/travel allowance of $10,000 per appointment year to cover expenses related to research and/or participation in scientific and professional development activities

The EERE Science and Technology Policy (STP) Fellowships serve as a next step in the educational and professional development of scientists and engineers interested in energy efficiency and renewable energy policy. The EERE STP Fellowships provide an opportunity for highly talented scientists and engineers to participate in policy-related projects at DOE's Office of Energy Efficiency and Renewable Energy in Washington, D.C. EERE STP Fellows apply the expertise gained from their education and history of conducting research to new and ongoing EERE initiatives. As a result of their participation on this program, Fellows are expected to:

- Gain deep insight into the federal government's role in the creation and implementation of policies that affect energy technology development
- Contribute to the implementation of energy policies by applying their scientific and technical expertise to the development of solutions for problems in areas of energy efficiency and renewable energy.
- Continue their education and involvement in areas that support the EERE mission either in a technical or policy-related role.
- Introduce policy-related knowledge and interest into research facilities supporting the EERE mission.