

IUSE: Innovation in Two-Year College STEM Education (ITYC)



Upcoming Deadline: December 9, 2026



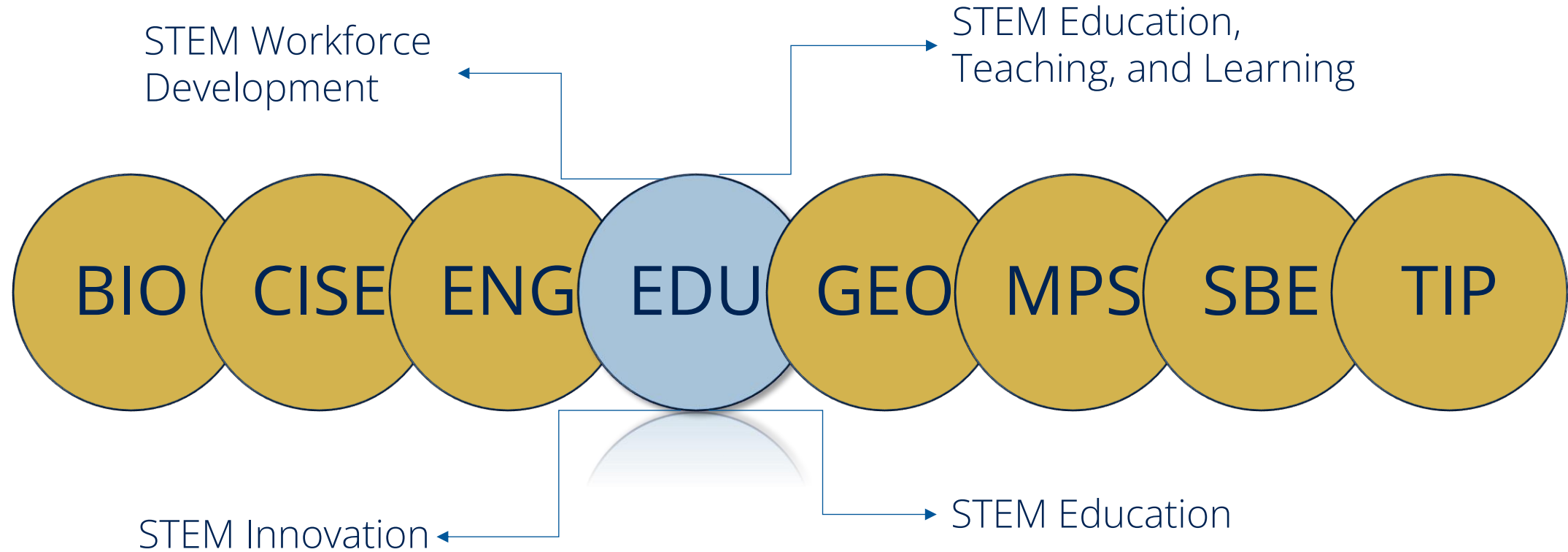
Program Directors

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STEM Education
(EDU)

NSF Research Directorates



EDU investments in STEM education and workforce development play a critical role in supporting the nation's STEM enterprise, from "K to grey."



Overview

23-584

- Introduction to EDU and ITYC
- Writing ITYC proposals
- The merit review process
- Frequently Asked Questions and Final Tips
- Q&A



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Innovation in Two-Year College STEM Education (IUSE:ITYC)

NSF 23-584

Seeks to accelerate the impact of emerging and evidence-based practices in undergraduate STEM education at two-year colleges across the country.

ITYC supports:

- two-year colleges as lead institutions
- advancement of courses, pathways, co-curricular activities, career pivots, professional development, etc.
- STEM majors & non-majors
- Adaptation and implementation projects



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ITYC Program Goals

23-584

NSF 23-584

1. Center students in the effort to advance innovation, promote success in STEM education at two-year colleges
2. Enhance the capacity of two-year colleges to harness the talent and potential of their student and faculty population through innovative disciplinary, multi-department, and college-wide efforts



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ITYC Funding Opportunities

Track 1: *The Academic Experience of Two-Year College **Students***
\$500K, 3 yrs.

Track 2: *Leveraging **Institutional Strengths and Innovation***
\$500k, 3 yrs.

Incentive: \$600K, 4 yrs. if no NSF awards in past 5 years

Planning Projects

Brief proposal, \$200K, 2 Yrs.

Conference/Workshops

Award amount varies

Open to All Institution types

Planning & Conference
Proposals accepted **any time of the year.**



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Track 1: The Academic Experience of Two-Year College

Examples of Project Activities

- Transforming introductory/developmental STEM courses (STEM and non-STEM majors)
- Implementing active learning, project-based or contextualized approaches
- Developing authentic research experiences -- models for research experiences specific to the two-year college context
- Connecting STEM learning to students' communities and experiences-- service learning, internships, experiential learning, etc.
- Developing approaches to enhance student engagement, motivation and success
- Conducting STEM Education Research/focused on two-year college students

Examples are illustrative, not exhaustive



Track 2: Leveraging Institutional Strengths and Innovation

Examples of Potential Project Activities

- Professional development for full- and part-time STEM faculty
- Partnerships and innovative pathways that support students through critical transitions, particularly transfer
- Innovative dual credit, dual enrollment and/or bridge programs
- Cross-disciplinary curriculum/co-curricular initiatives
- Capacity building for engaging in STEM education/DBER research
- Department and/or college culture transformation

Examples are illustrative, not exhaustive



Planning Proposals

- ITYC welcomes planning proposals submitted at any time during the year.
- A consultation with a program officer is required prior to proposal submission.
- Up to \$200K for max of 2 years (proposals under \$200K undergo internal review process)

From PAPPG on Preparing a Planning Proposal:

- Must be submitted through Research.gov
- Brief (no more than 8 pages)
- *Provide clear statements as to why this is appropriate for a planning proposal*
- *Include how the funds will be used to submit a future proposal*

Important to include ITYC Project Description Sections!



Merit Review Criteria: How Your Proposal Will Be Reviewed

Intellectual Merit: What is the potential for the proposed activity to advance knowledge and understanding within its own field or across different fields?

What will we learn?

Broader Impacts: What is the potential for the proposed activity to benefit society or advance desired societal outcomes?

Who will be affected?

To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts?



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Merit Review Considerations

The following elements are considered in the review process for both **Intellectual Merit** and **Broader Impacts**:

- To what extent do the proposed activities suggest and explore **creative, original** or **potentially transformative** concepts?
- Is the plan for carrying out the proposed activities **well-reasoned, well-organized**, and based on a **sound rationale**?
- Does the plan incorporate **mechanisms to assess success**?
- How well **qualified** is the individual, team, or institution to conduct the proposed activities?
- Are there **adequate resources** available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?



Additional Solicitation-specific Criteria

- In what ways does the proposal reflect an understanding of the target population of students, faculty and/or other professional such as assets brought to the project, interests, and/or lived experiences?
- To what extent is an understanding of the target population reflected throughout the proposed work (e.g., team composition and management, design and development processes and activities, budget allocations, etc.)?



Idea to Proposal Submission

V. Proposal Preparation And Submission Instructions

5. Project Description (Narrative)

Project Rationale, Significance and Objectives

Project Design

Timeline

Generation of Knowledge

Project Evaluation

Dissemination/Communication Plan

Sustainability

Project Management

Results from Prior NSF Support (Required)

Broader Impacts (Required Section)



Project Rationale things to consider:

- What is known about your idea already (Literature Review)?
- What is known about this at your context/institution? (Institutional Data)
- What can you contribute to this field with this work?



Considerations Before You Submit

- What problem or opportunity are you addressing?
- What evidence tells you this is important in your context?
- Why are the proposed activities appropriate for addressing it?
- What changes do you expect to see?
- How will you know whether those changes occurred?
- What will others learn from your project?
- How will other learn about the findings of your project?

KNOWLEDGE BASE - GENERATION OF KNOWLEDGE - PROJECT EVALUATION – TIMELINE - DISSEMINATION



Frequently Asked Questions

- Is a research component required?
 - No, but the project must generate knowledge through assessment, project evaluation or research
- Can evaluation satisfy the generation of knowledge requirement?
 - Yes, but the proposal needs to explain explicitly how the project team will work with the evaluator and how this approach will advance understanding of STEM education in the two-year college context
- Can a four-year institution be involved?
 - Yes, but for collaborative proposals, the 2-year college must be the lead institution
- Can we purchase equipment to support the project?
 - Yes, up to 30% of the project budget and includes a justification and sustainability plan
 - Equipment are items costing greater than \$5000 per unit (see PAPPAG)



Frequently Asked Questions

- How do I decide between Track 1 and Track 2?
 - Primary focus on student experiences - **Track 1**
 - Primary focus on building institutional or faculty capacity, partnerships to support student success - **Track 2**
- Can I contact a program officer about whether my ideas fits?
Yes. Send a one-pager of your idea to **ityc@nsf.gov**



Writing a One-Pager

Three typical components of a one-pager:

- **A brief overview:** A description of your idea that explains the what, how, why, when, where, and who details of a project built around your compelling idea (and explain why it is compelling!).
- **A statement of Intellectual Merit:** How will your project contribute to what we know about X?
- **A statement of Broader Impact:** How will your project contribute to the achievement of specific, desired societal outcomes?



Proposal and Awards Policy Procedure Guide



The PAPPG is updated regularly and provides:

- Information for Proposal Preparation and Submission Guidelines
- Award, Administration and Monitoring Processes for Funded Projects
- Most recent update: January 22, 2026



Become a Reviewer for ITYC

The success of the NSF peer review process depends on the willingness of qualified reviewers like you to share your time and expertise.

Scan the QR code to volunteer as an ITYC reviewer!



ityc@nsf.gov



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Questions?

ityc@nsf.gov

- ITC solicitation
- Proposal preparation
- Merit review process



Next Office Hours:
October 13
October 29
November 10

<https://www.nsf.gov/funding/opportunities/ityc-iuse-innovation-two-year-college-stem-education>

ITC Deadline: December 9, 2026

Dear Colleague Letter: Science Education Alliance-Phage Hunters Advancing Genomics and Evolutionary Science in Two-Year Colleges (SEA-PHAGES-TYC)

(NSF 24-116)

- Partnership between HHMI and ITYC
- ***Supports planning proposals*** that focus on the activities associated with adapting and implementing the discovery-based HHMI SEA-PHAGES curriculum in laboratory courses within a two-year college biology program.

