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

Program Officers

Kalyn Owens

Connie Della-Piana

Michael Davis

Christine Delahanty

Division of Undergraduate Education (DUE)

Office Hours

See Website

Overview

- Introduction to ITYC
- Writing an ITYC Proposal
- A Brief Look at the NSF Merit Review Process
- Additional Tips and Final Thoughts

NSF Directorates

Alexandria, VA

BIO	MPS
CISE	ENG
SBE	GEO
EDU*	TIP

Division of Undergraduate Education (DUE)

ITYC

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

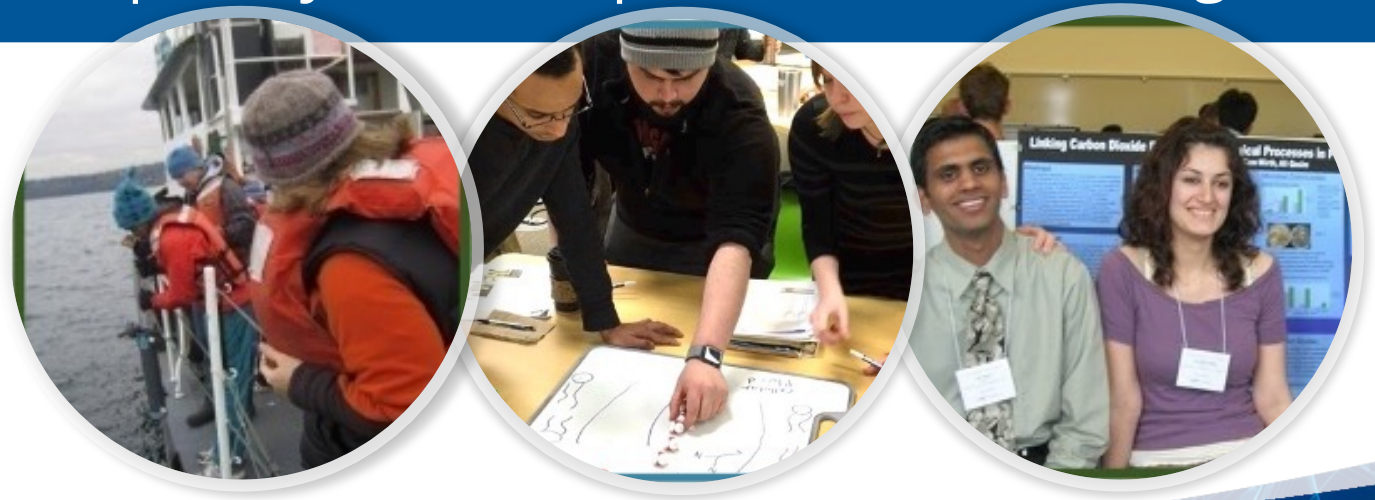
ITYC supports:

- two-year colleges as lead institutions
- all STEM disciplines (supported by the NSF)
- advancement of courses, pathways, or co-curricular activities--STEM majors & non-majors
- innovation and adaptation/implementation projects in new context
- embrace the numerous on-ramps, pathways and career pivots that shape the two-year college student experience
- centering student voices at all levels of projects
- broadening participation/contribution to diverse US workforce

ITYC Program Goals

1. Center **students** in the effort to advance innovation, promote equitable outcomes and broaden participation for all students in STEM education at two-year colleges, and

2. Enhance the capacity of two-year **colleges** to harness the talent and potential of their diverse student and faculty population through innovative disciplinary, multi-department, and college-wide efforts.



ITYC Funding Opportunities

Track 1: *A Focus on the Academic Experience of Two-Year College Students*

- Centers the **student** experiences
- Max award of $500k, 3 yrs.
- If no NSF award in past 5 yr., $600k, 4 yrs.

Track 2: *Leveraging Institutional Strengths and Innovation*

- Fosters multi-department or **college**-wide projects
- Max award of $500k, 3 yrs.
- If no NSF award in past 5 yr., $600k, 4 yrs.

Planning Projects

- Initial conceptualization of ideas & **planning**
- Brief – 8 pages max
- See PAPPG
- $100K, 2 yrs. max

Conferences/Workshop

- Community, Capacity, Expertise
- Brief – See PAPPG
- Open to all Institution types

ITYC: Track 1

Track 1: *A Focus on the Academic Experience of Two-Year College Students*

- Centers the **student** experiences
- Max award of $500k, 3 yrs.
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Direct engagement with students that place **students at the center**

Student populations - full- & part-time, enrolled at multiple colleges, dual enrollment and recognize **intersectionality of student identities**

Recognize and harness the **potential/assets** within this unique population to optimize the student experience

Stipends for student time and engagement with project activities are encouraged.

Proposers are encouraged to use disaggregated institutional data to address the specific needs of their student population or to justify the proposed enhancements in student experiences and/or institutional capacity-building activities.

Track 1: Examples Project Activities

- Transformation of introductory/developmental STEM courses
- Culturally responsive teaching materials and practices--increase belonging, identity, participation, and success
- Authentic research experiences -- models for research experiences specific to the two-year college context
- Prepare students to apply a STEM mindset to everyday life
- Connect STEM education to students' communities and lived experiences--service learning, internships, experiential learning, etc…
- STEM Education Research/DBER specific to the advancement of STEM education at two-year colleges

ITYC: Track 2

Track 2: *Leveraging Institutional Strengths and Innovation*

- Fosters multi-department or **college**-wide projects
- Max award of $500k, 3 yrs.
- If no NSF award in past 5 yr., $600k, 4 yrs.

Foster single discipline, multi-department, or college-wide projects to accelerate innovation

Develop innovative models for on- and off-ramps, and many other structural innovations that contribute to increasing participation

Promote student success and increase participation in STEM through novel targeted approaches

Establish communities of practice or other novel strategies for building capacity

Project teams are encouraged to leverage the expertise that result from authentic partnerships across disciplines, institutions, and communities.

Track 2: Examples of Potential Project Activities

- Professional development for full- and part-time STEM faculty
- Partnerships -- innovative pathways to support students through critical transitions (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

ITYC Deadlines

Track 1: *A Focus on the Academic Experience of Two-Year College Students*

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Track 2: *Leveraging Institutional Strengths and Innovation*

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T1 & T2 Deadline:
December 13, 2023
(Second Wednesday in December thereafter)

Planning Projects

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- Brief – 8 pages max
- See PAPPG
- $100K, 2 yrs. max

Conferences/Workshop

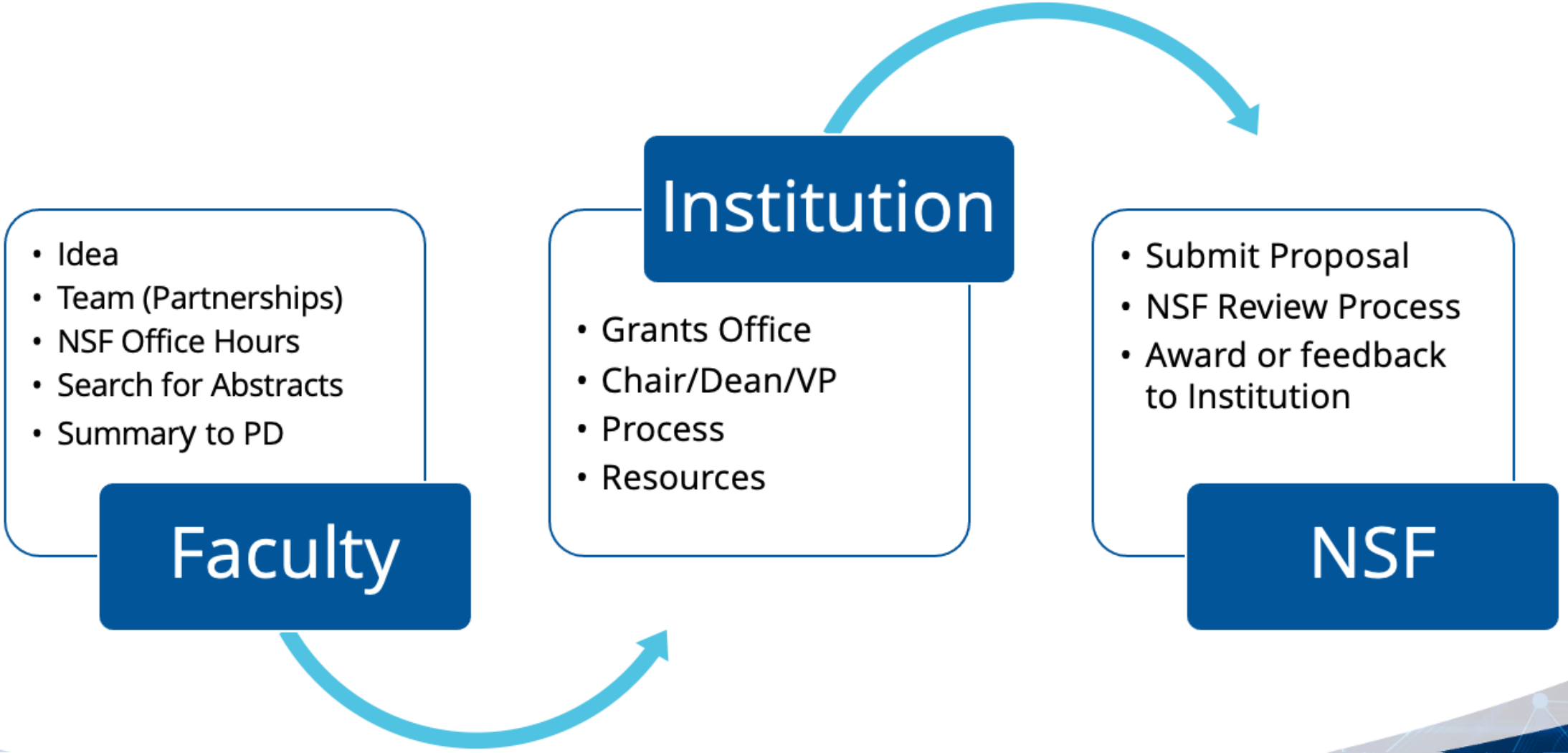
- Community, Capacity, Expertise
- Brief – See PAPPG
- Open to all Institution types

Proposals accepted throughout the year

Eligibility

- Proposals may only be submitted by **two-year colleges of higher education** (either Associates College or Baccalaureate / Associates Colleges) that are accredited and offer undergraduate educational degree programs in science, technology, engineering, and mathematics (STEM).
- Baccalaureate, Master's, and Doctoral institutions, and Professional Organizations may partner with a two-year college as a subaward or as a collaborator. **For all collaborative proposals, two-year colleges must be the lead organization.** Please see PAPPG Chapter II.E.3 for additional guidance on collaborative proposals.

Overview of Proposal Submission Process



PAPPG

Solicitation (23-584)

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

PROGRAM SOLICITATION
NSF 23-584

REPLACES DOCUMENT(S):
PD 21-7980

National Science Foundation

Directorate for STEM Education
Division of Undergraduate Education

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

December 13, 2023

Second Wednesday in December, Annually Thereafter

IMPORTANT INFORMATION AND REVISION NOTES

This program solicitation replaces PD 21-7980. Proposers should pay close attention to the sections of the solicitation that deviate from the PAPPG, including eligibility, proposal preparation instructions, and additional solicitation specific review criteria.

The program is open to two-year colleges of higher education (either Associates College or Baccalaureate / Associates Colleges) that are accredited and offer undergraduate educational degree programs in science, technology, engineering, and mathematics (STEM).

Baccalaureate, Master's, and Doctoral Colleges and Universities may partner with a two-year college as a subaward or as the non-lead in a multi-institutional collaborative.

The term Innovation in this solicitation refers to new approaches to improving the STEM education enterprise, and/or new and creative ways to adapt and implement evidence-based practices in new contexts.

Any proposal submitted in response to this solicitation should be submitted in accordance with the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) that is in effect for the relevant due date to which the proposal is being submitted. The NSF PAPPG is regularly revised and it is the responsibility of the proposer to ensure that the proposal meets the requirements specified in [illegible] and the applicable version of the PAPPG. Submitting a proposal prior to a specified deadline does n[illegible]quirement.

Screenshot

Section V: Proposal Preparation and Submission

NSF's Merit Review Criteria

What is the potential for the proposed activity to make a difference?

- **Intellectual Merit (IM):** By **advancing knowledge and understanding** within its own field or across different fields; and
- **Broader Impacts (BI):** By **benefitting society** or advancing desired societal outcomes?

To what extent do the proposed activities suggest and explore **creative, original, or potentially transformative** concepts?

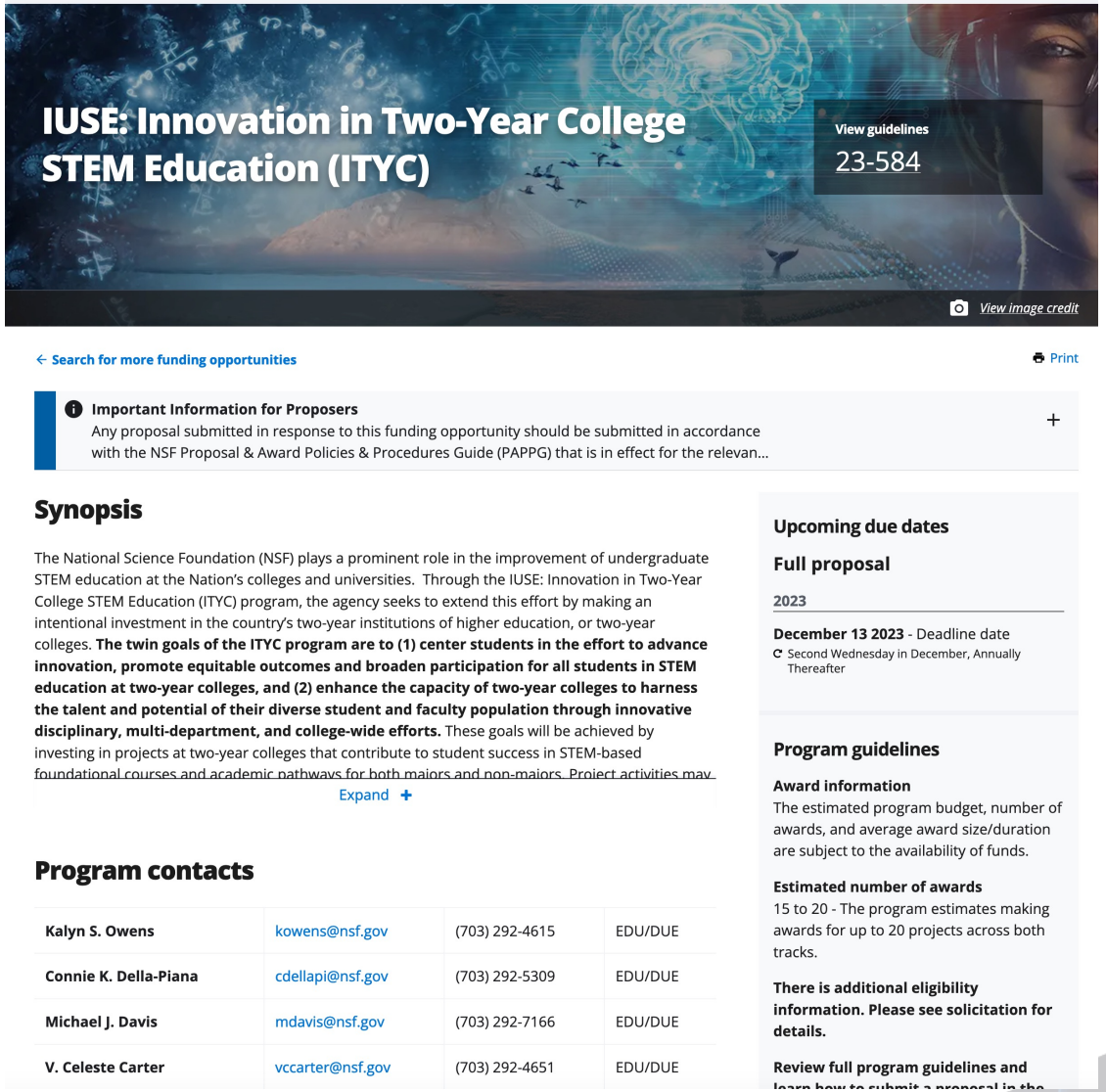
Is the **plan** for carrying out the proposed activities well-reasoned, well organized, and based on a sound rationale?

How **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 Tips

1. Contact a Program Officer!
   - 1-2 page summary of your idea
   - More Questions?
   - Discuss a decline
   - Request a presentation at PD event in your area!
2. Sign-up to be a Reviewer!
3. Sign-up for DUE Updates
4. Read the solicitation carefully



Questions?

Kalyn Owens: kowens@nsf.gov
Connie Della-Piana: cdellapi@nsf.gov
Michael Davis: mdavis@nsf.gov
Chris Delahanty: cdelahan@nsf.gov

Office Hours

See Website for upcoming dates and times

https://new.nsf.gov/funding/opportunities/iuse-innovation-two-year-college-stem-education

ITYC Deadline: December 13, 2023

(Second Wednesday in December thereafter)