



Grant Writing Strategies for NSF ATE Proposals

ACTE Postsecondary CTE Summit
September 17, 2026
Greg Kepner
NavigATE Project
Hillsborough College

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ATE Collaboration

NavigATE Project - DUE #2348519

- Hillsborough College, Tampa, FL

Mentor-Connect Project - DUE #2227301

- Florence-Darlington Technical College, Florence, SC

Micro Nano Technology Education Center - DUE #2454155

- Pasadena City College, Pasadena, CA

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NSF ATE Grant Experience

Greg Kepner – 19 years



Principal Investigator
NavigATE and 2 other ATE Projects
Midwest Photonics Education Center

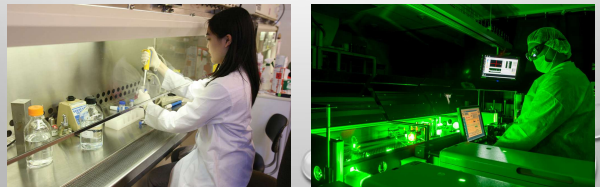
Co-Principal Investigator
Micro Nano Technology Education Center
National Center for Optics and Photonics Education

Project Evaluator
Mentor-Connect Mentor
MentorLinks Mentor

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NSF ATE Program Purpose

The education of highly qualified science and engineering technicians for the advanced technology fields that drive our nation's economy.



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What does NSF ATE fund?



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- Faculty development
- Program development
- Curriculum development
- Outreach/Recruitment
- Student retention
- Industry partnerships
- Equipment upgrades
- And more....

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NSF ATE Grantee Focus

- Institutions of Higher Education that award certificates and 2-year technology degrees
- 2-year faculty must have a leadership role on all projects
- 2-yr, 4-yr institutions and high schools can be supported (Education Pathways)
- Partnerships with Industry and Workforce or Economic Development Entities required

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NSF 24-584

NSF 24-584: Advanced Technological Education (ATE)

Program Solicitation

Document Information

Document History

- **Posted:** June 24, 2024
- **Replaces:** NSF 21-598

[View the program page](#)

 **National Science Foundation**
Directorate for STEM Education
Division of Undergraduate Education

Full Proposal Deadline(s) (due by 5 p.m. submitting organization's local time):
October 03, 2024 **October 1, 2026**
First Thursday in October, Annually Thereafter

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ATE Technology Areas

- Advanced Manufacturing Technologies
- Biotechnology
- Agricultural Technologies
- Energy and Environmental Technologies
- Engineering Technologies
- Information and Security Technologies
- Micro and Nano Technologies
- Autonomous Technologies
- Geospatial Technologies
- Emerging Technologies - Artificial Intelligence

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Funding Tracks

- Small Scale Projects
- Projects
- Consortia for Innovations in Technician Education
- Centers

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Funding Tracks

Small Scale Projects

- Up to 20 awards per year
- Up to \$475k per award
- Up to 3-year duration
- Can serve as pilot project or prototype

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Funding Tracks

Projects

- Up to 45 awarded per year
- Up to \$1M per award
- Up to 3-year duration
- Broad eligibility
- Includes Applied Research on Technician Education

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Funding Tracks

Consortia for Innovations in Technician Education

- Up to 5 new awards per year
- Up to \$1.2 M per award for 2 institutions
- Up to \$3M per award for 3+ institutions
- Up to 4-year duration

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Funding Tracks

Consortia for Innovations in Technician Education

- Strengthens partnerships
- Specific industry or technology convergence
- Collaborations with ATE Centers & Projects
- Program improvement and development

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Funding Tracks

Centers

- Up to 10 total in U.S.
- Typically 1-3 awards per year
- Up to \$7.5m - 5 years (one renewal)
- 2026 – Energy Technologies

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Grant Strategy

- What?
- Why?
- Who?
- When?
- Where?
- How?

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Grant Basics – What?

- Start with an idea
- Demonstrate industry need
- Tell the story
- Abstract - description of the project
- Results from Prior NSF support

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Project Summary

- Overview of the project
 - Disciplinary focus
 - Kinds of activities
 - Primary audience
- Intellectual Merit
 - Potential to advance knowledge base
- Broader Impacts
 - Potential benefit to society

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Grant Basics – Why?

- Motivating rationale
- Industry need
 - Labor statistics
 - O*NET data
 - Company postings
- Workforce development focus
 - Technician need

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Grant Basics – Who?

- Institution
- Partners
- People
- Qualifications
- Education
- Experience

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Grant Basics – Where?

- Institution(s)
- History
- Facilities
- Equipment
- Other resources supporting project
- Capacity

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Grant Basics – How?

- Goals - overarching
- Objectives - specific
- Activities - support goals and objectives
- Deliverables
 - Numbers
 - Results
 - Impacts

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Grant Basics – When?

- Timeline for Activities
- Gantt chart example

	YEAR 1			YEAR 2			YEAR 3		
	FA	SP	SU	FA	SP	SU	FA	SP	SU
ACTIVITY 1									
TASK 1.1	X	X	X						
TASK 1.2		X	X						
TASK 1.3			X	X	X				
TASK 1.4			X			X			X
TASK 1.5					X	X	X	X	X

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Grant Basics – Budget

- Personnel - salary and fringes
- Travel
- Equipment
- Supplies
- Contractual
- Direct
- Indirect (de minimis rate now 15%)
- No cost sharing

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Grant Basics – Other

- Data collection
 - Data Management Plan - Security
- Evaluation
 - Evaluator – name if possible
 - Plan for evaluation
- Dissemination
 - Publications - Journals
 - Presentations - Conferences
 - Information sharing

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Supplementary Documents

- References Cited – do your research
- Letters of Commitment
 - Specific commitments required
 - Follow NSF 24-584 solicitation
- NSF Biosketches
 - SciENcv format
 - Senior Personnel & Evaluator

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Supplementary Documents

- Current and Pending support
 - Any related funding
- Collaborators and Affiliates
 - Partnerships
 - Projects

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Grant Activities

Projects/Small Scale Projects

- Program Development and Improvement
- Professional Development for Educators
- Curriculum Development
- Educational Materials Development
- CTE and STEM Teacher Preparation
- Undergraduate Research Experiences
- Internships, Apprenticeships, Work Experiences
- Instrumentation/Equipment Acquisition

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Excluded from ATE

- Scholarships (Use S-STEM instead)
- General STEM Education w/o Technician Focus
- Transfer Focused Programs
- Health, Veterinary & Medical Technician Programs
- Replacement Equipment or Instrumentation that does not Significantly Improve Instructional Capability

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Excluded from ATE

- Vehicles, Trailers, Laboratory Furnishings, General Utility Items
- Maintenance of Equipment or Related Contracts
- Modification, Construction, or Furnishing of Laboratories or Other Buildings
- Installation of Equipment or Instrumentation
- Teaching Aids

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Mentoring Opportunities

There are no-cost opportunities available:

- Mentor-Connect
- MNT-EC or other ATE Centers
- CCPI-STEM - new proposal in progress
- MentorLinks - new award in 2026

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Mentoring Examples

Mentor-Connect

- Small Scale Projects
- Second Chance – submitted and not funded
- Moving Up – higher level project funding
- Co-mentoring – Discipline partnership
- THRIVE – expanding opportunities

72+% Funding Rate!

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Mentor-Connect Services

- Individual Mentoring
- Technical Assistance
- Webinars & Tutorials
- Workshops
- Help Desk – Just-in-time answers
- Online Resource Library
- NSF Funding Process Guidance & Start-up Help
- Leadership Development

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www.mentor-connect.org



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MNT-EC Co-Mentoring

Micro Nano Technology Education Center

- Project proposal mentoring
- Co-mentoring with Mentor-Connect
- Emphasis in Micro Nano Technology
 - Materials Science Technology
 - Photonics Technology
 - Manufacturing Technology
 - Engineering Technology
 - Biotechnology

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MNT-EC Mentoring Services

Review Micro/Nano related proposals

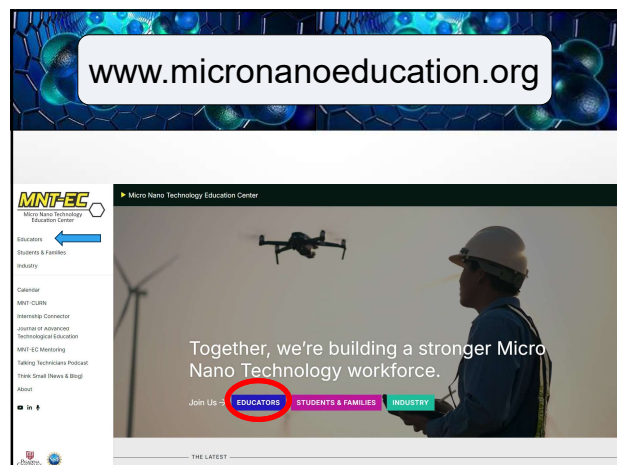
- Provide feedback and recommendations
- Subject matter expertise

Guidance on:

- NSF ATE Solicitation 24-584
- PAPPG
- NSF New Awardee Packet
- NSF onboarding process

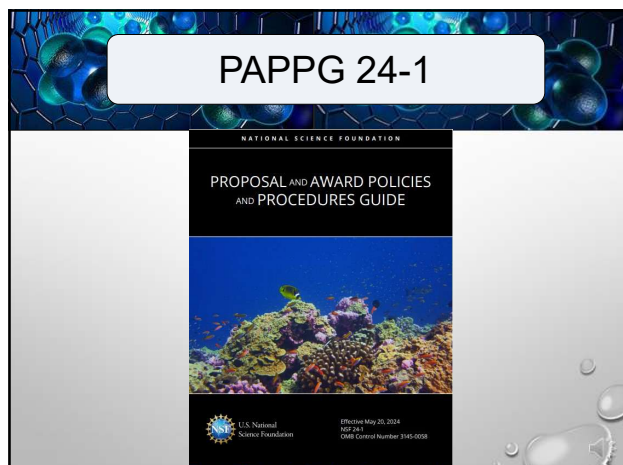
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www.micronanoeducation.org



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PAPPG 24-1



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PAPPG 24-1

- Proposal preparation instructions
- Submission guidelines
- NSF proposal processing and review
- Budget information
- Allowability of costs
- Financial requirements
- Post award requirements
- Grant administration

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Journal of Advanced Technological Education

- Peer-reviewed technical journal
- Focus on technician education
- Authors are invited to submit an article
- ATE collaborative effort initiated by MNT-EC
- Dissemination opportunity for projects

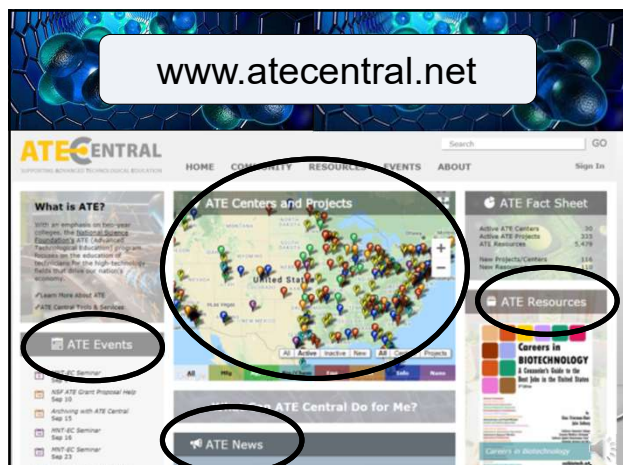
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ATE Central

- Information hub for NSF ATE community
- Free online portal
- Collection of products and materials
- ATE Central Handbook
- ATE Outreach Kit
- Activity Reports
- Website: <https://atecentral.net/>

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www.atecentral.net



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NSF ATE Resources

NSF ATE www.nsf.gov/ATE
 Mentor-Connect www.mentor-connect.org
 MNT-EC www.micronanoeducation.org
 ATE Central <https://atecentral.net/>
 EvaluATE <https://www.evalu-ate.org/>

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Want more information?

Complete a brief survey at:



Read the ATE solicitation NSF 24-584 at:



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Questions?

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