Center of Excellence in Applied Computational Science and Engineering (CEACSE) FY2024

Information Session

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CEACSE Program Overview

CEACSE is seed funding intended to...

- Enhance and expand UTC's capacities in CSE

- Stimulate CSE research activity across a broader range of departments

- Build capacity to attract external funds

NOT to take the place of extramural funding!

Proposals should demonstrate that they…

- Relate to modeling and simulation, big data, or data analytics

- Will result in high-impact, peer-reviewed publications

- Can "seed" larger, long-term extramural funding

FY2024 Priority Areas

1. Advanced Modeling & Simulation
2. Critical Infrastructure Protection, including Energy & Smart Grid
3. Cybersecurity & Cyber-physical Systems
4. Climate, Weather & Environmental Systems
5. Extreme Environment Technologies
6. Health & Biological Systems
7. Modeling & Simulation of Advanced Materials
8. Modeling & Simulation of Quantum Systems
9. High-Performance Computing & Algorithms

Eligibility

- UTC tenured and tenure-track faculty from ALL disciplines are eligible to serve as the Lead PI and Co-PIs.

    - Lecturers, adjuncts, post-docs, and staff who do not hold faculty appointments may serve as Co-PIs

- Eligible individuals can be Lead PI on only **1** proposal and a team member or co-PI on no more than **2** proposals. [3 total]

- History of external funding not required!

- All teams **must** receive an endorsement and signature from the Lead PI's Department Head.

Amount and Duration

- Maximum award amount: $100,000

- Project period: 12 months (July 1, 2023, to June 30, 2024)

- Anticipated number of awards: 7-9

There will be NO extensions, except under extenuating circumstances.

FY2024 Competition Updates

Important Changes

- Full budget not required; use block budgeting instead

- SciENcv must be used to develop personnel documents

- Moving to single-blind external review process
  - Reviewers will still be external and anonymous to each other and the applicants
  - Reviewers will consider all attachments in their reviews
  - Use Comments to Administrator in InfoReady Review to list individuals you don't want to review your proposal

- Proposals will no longer be proofread or redacted before review

Proposal Preparation Instructions

Application Components:

InfoReady Review Form

- Applicant information

- Co-PI information

- Proposal Title

- Proposal Abstract [200 words max]

- Keywords

- IRB/IACUC

- Comments to the Administrator

Application Components:

Uploads

- CEACSE Cover Page Form
  - Signed by lead PI's Department Head
- Proposal Narrative [7 pages max]
- Extramural Funding Plan
- Block Budget
- Curriculum Vitae for all investigators [3 pages each]
  - Must use SciENcv
- Current and Pending Support for the PI
  - Must use SciENcv
- Appendix – for resubmissions only

Instructions for each document can be found in the RFP and in InfoReady Review

Formatting

- Except where noted, all uploads should be in PDF format

- All PDF documents should be sized for 8.5 in. x 11 in. paper, in one column, with 1 in. (2.54 cm) margins and 11pt type minimum (e.g., Times New Roman). (If Arial is used, the minimum size is 10pt.)

Timeline

- Proposals due: 5 PM on October 31, 2022 in InfoReady Review

- Final decisions: Spring 2023

- Projects begin: July 1, 2023

Budgeting Considerations

Allowable Costs

- PhD student support (stipend, fringes, tuition, **health insurance**)
- MS student support (stipend, fringes, tuition, **health insurance**)
- Student hourly wages
- UTC faculty or staff release/replacement costs
- Up to two months of UTC faculty summer salary
- Other personnel costs
- Fringe benefits associated with requested salary/wages
- Equipment (items valued at $5,000 or more)
- Software
- Travel
- Publication fees
- Material and supplies
- Sensitive minor equipment (items valued at $1,500 to $5,000)

Unallowable Costs

- Extra services compensation during the academic year

- Non-student administrative or clerical support costs

- Indirect or F&A costs

- Supplantation of costs (e.g., lab space) typically covered by other institutional sources

Block Budgeting

- Use rounded estimates by category based on guidance in the RFP.

- Budgets will be reviewed only to ensure that costs are allowable, reasonable, and sufficient to support the proposed scope of work.

- SimCenter will work with PIs to fine tune budgets at time of award

- Block budget template available on the program website and attached in InfoReady Review.

- A sample block budget is provided in the second tab.

Budgeting Requirements

- Floor stipend levels required for GAs
  - **$24K/year** for PhD GAs
  - **$8k/semester** for MS GAs
- Fringe benefits - 9% for students, 34% for faculty/staff
- Equipment cannot exceed 30% of total budget
- Contact Anna Lane (anna-lane@utc.edu) with CEACSE budget-related questions.

Sample Block Budget

Category	7/1/23 - 6/30/24	Notes
Personnel		
PI - *list name and est. effort + 34% fringes*		
Dr. A - 2 summer months + 34% fringes	$30,000	
Co-PIs - *list names and est. effort + 34% fringes*		
Dr. B - 0.5 summer months + 34% fringes	$7,500	
Students		
PhD assistantship stipend + 9% fringes + tuition (fall, spring, summer) + health insurance		
MS assistantship stipend + 9% fringes + tuition (fall, spring) + health insurance	$32,500	1 full time ms-level assistantship
MS hourly wage + 9% fringes	$3,500	summer effort for GA
Undergrad hourly wage + 9% fringes		
Other Personnel Costs - *list name/position, effort + 34% fringes*		
Equipment - *limited to 30% of budget*		
Instrument X	$15,000	needed to implement Objective 1
Travel	$4,000	conference travel for PI and student
Materials/Supplies/Software	$4,500	chemicals for project
Publication fees	$3,000	open access fees for two publications
Other		
Total Direct Costs	$100,000	
TOTAL FUNDS REQUESTED	$100,000	

Project Requirements

Required Approvals

- Lead PI's Department Head
  - must have signature on cover page

- IRB or IACUC approval*
  - not required for submission, but needed before research with humans or animals begins

- Export Control issues*

- Conflict of Interest issues*

- Additional space, equipment, or IT needs
  - must be approved in advance by appropriate administrator

*Contact ORI with questions

Award and Reporting Requirements

All awarded PIs must

- Participate in an orientation session to be held in August 2023

- Submit a brief status report by the first business day of **each** quarter

- Participate in a midterm meeting to share progress and discuss challenges with the SimCenter Director

- Present on research activities at the annual ReSEARCH Dialogues conference in April 2024

- Submit a final report within 60 days of award end

Extramural Funding

- **At least one** external funding application must result from each CEACSE award.

- Work with ORSP to complete and submit proposals **well in advance** of the sponsor deadline.

- Failure to apply for external funding will affect eligibility for future CEACSE awards.

Review Process

Review Criteria

- **Intellectual Merit:** Demonstrate scientific merit in the relevant field(s)

- **Broader Impacts:** Engage with an audience outside the immediate scientific community, including grad student mentoring

- **Importance:** Original, significant, timely, and/or transformative

- **Further Funding Potential:** Strong potential to directly transform results into **new** extramural funding

- **Feasibility:** Realistic work plan and budget with appropriate scope

- **Strategic Excellence [internal review only]:** Align with strategic goals of the department, college, and institution

External Peer Review

- External reviewers
  - selected for their expertise in modeling & simulation and/or a specific subject area
  - Merit score based on review criteria

- Internal review panel
  - Funding decision based on merit scores, compatibility with institutional initiatives, and likely project success

FAQ

Eligibility

- I'm not tenured or tenure-track. Can I still apply?
  - Only tenured or tenure-track faculty can apply as the PI, but you can participate as a co-PI.

- Can I have a foreign co-PI?
  - No, but you may have a foreign unfunded collaborator.

- Can my postdoc be a PI?
  - No, but postdocs may be co-PIs.

- Can I apply for CEACSE funding even if I am not SimCenter-affiliated faculty?
  - Yes! We want to grow UTC's capacity to attract funding and do research. You can help us!
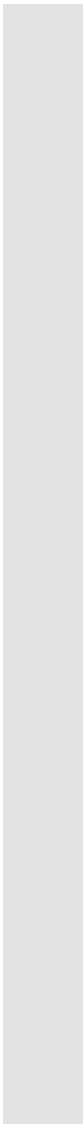
Budget

- Am I required to budget for my graduate student's health insurance?
  - Yes, if their assistantship will be funded by the award.

- Why are there required salary floors for MS and PhD student compensation?
  - The SimCenter strongly believes that the highest quality work comes from well-supported students.

Priority Areas

- Does my project have to fit exactly within one of the nine research areas?
  - No, you can propose a project outside of the nine areas, as long as the project is directly related to data analytics, modeling, and/or simulation.

- What if I'm not sure what area my project fits into?
  - Contact Dr. Tony Skjellum (tony-skjellum@utc.edu) before submitting. Or, on your cover page, indicate the areas you feel overlap in your project.

Other

- Why do I have to use SciENcv to prepare my CV and current and pending form?
  - Beginning in January 2023, NSF is requiring SciENcv to be used to prepare these documents. We want to make sure you're ready!

- Will a recording of this webinar be available?
  - Yes! The recording and slides from this webinar will be posted to the CEACSE program page.

Q&A

Resources

- CEACSE Program Webpage: https://www.utc.edu/research/simcenter/ceacse/funding-opportunity-overview

- InfoReady Review (submission portal): https://tennessee.infoready4.com/#competitionDetail/1872069

- SciENcv Resources: https://www.utc.edu/research/research-and-sponsored-programs/sciencv-guide

Contacts

- **Program-related Questions**: Dr. Tony Skjellum at tony-Skjellum@utc.edu

- **Budget-related Questions:** Anna Lane at anna-lane@utc.edu

- **InfoReady Review-related Questions:** Ashley Ledford at ashley-ledford@utc.edu

Thank you!