JOHNS HOPKINS
WHITING SCHOOL
of ENGINEERING

Lifelong Learning

ADVANCED GRANT WRITING: SPECIFIC AIMS WORKSHOP

PROGRAM INFORMATION

COURSE DESCRIPTION

In this workshop, participants preparing to submit a National Institutes of Health (NIH) or National Science Foundation (NSF) grant—including SBIR and other translation grants —will gain expert insight into writing the cornerstones of each grant application. With a focus on the "Specific Aims" section of the NIH and the "Vision and Goals" section of the NSF grant, participants will hone the ability to set the stage for a successful research approach section.

During this workshop, faculty members will facilitate a group discussion and evaluate each component to ensure it is clearly stated and compelling. Participants will receive concrete feedback from both faculty and peers, reinforcing their learning through mutual critique. By the end of the workshop, everyone will have a clear understanding of how to revise their drafts. After completing this workshop, participants will understand how to effectively approach and write a compelling full proposal.

WHO SHOULD ATTEND?

This workshop welcomes first-time grant applicants and those who have not been successful with grant submissions. The "Advanced Grant Writing: Specific Aims Workshop" is tailored for anyone preparing to submit an NIH or NSF grant, including SBIR and other translational grants. For those who are submitting NSF Career awards, there will be special workshops for these submissions during the spring term.

HOW IS THIS DIFFERENT FROM A TYPICAL GRANT WRITING WORKSHOP?

This advanced grant writing workshop is not a typical grant writing workshop. The faculty work closely with participants on their specific proposal draft to help improve it. The main focus is on the "Specific Aims" section of the National Institutes of Health (NIH) and the "Vision and Goals" section of a National Science Foundation (NSF) grant. These sections are the cornerstone of a successful NIH or NSF grant

application and sets the stage for how to write a successful research approach section. After completing this workshop, participants will also understand how to effectively approach and write a compelling full proposal.

ATTENDANCE OPTIONS

PARTICIPANT WITH SUBMISSION

For those seeking direct feedback on the "Specific Aims" section of your draft grant proposal because you plan to submit your proposal in the next 1 to2 months, the course faculty will work with you to improve this section during the workshop. To be a participant with submission, you must submit a draft of the “Specific Aims” page to Lifelonglearning@jhu.edu at least 24 hours before the workshop begins.

Modality: In-Person
Available seats: Limited to 7 participants
Cost: $2,500

PARTICIPANT

For those seeking to learn from the faculty and fellow participants and plan to submit a proposal in the next 3 to 6 months, you will participate in the feedback process to learn how to improve your “Specific Aims” page. You will not get direct feedback on your “Specific Aims” page but will be ready to draft one with all the required components after the workshop.

Modality: In-Person
Available seats: Limited to 10 participants
Cost: $1,000

ONLINE OBSERVER

Online observers will gain an understanding of how to strategically approach writing their grant submissions. You will not gain direct feedback on a draft, but as an observer, you will learn from expert faculty and peers in the workshop, preparing you to write a grant in the future.

Modality: Online (via Zoom)
Available seats: Unlimited
Cost: $750

KEY TAKEAWAYS:

Understand the critical importance of the “Specific Aims” section in your NIH or the “Vision and Goals” section of the NSF grant application and how it serves as the foundation of your proposal.

Learn how to write clear, specific, and measurable aims that align seamlessly with your research strategy and highlight the innovation and impact of your study.

Gain insights into common mistakes in writing the “Specific Aims” section and practical advice on how to avoid them, ensuring your section stands out to reviewers.

Benefit from personalized feedback and one-on-one mentoring from experienced faculty with a proven track record of securing and reviewing NIH and NSF grants.

FACULTY

SRI SARMA, PHD

Sri Sarma is an associate professor in the Institute for Computational Medicine, Department of Biomedical Engineering, at Johns Hopkins University. Her research includes modeling, estimation, and control of neural systems using electrical stimulation. She is a cofounder of Neurologic Solutions, Inc. which develops EEG analytics tools for brain disorders. She teaches courses in Precision Care Medicine, Systems and Control, and Networks.

Sarma received a BS in electrical engineering (1994) from Cornell University and an MS (1997)and PhD (2006) in electrical engineering and computer science from Massachusetts Institute of Technology (MIT). From 2000 to 2003 she took a leave to start a data analytics company. From 2006 to 2009, she was a postdoctoral fellow in the Brain and Cognitive Sciences Department at MIT.

She is a recipient of the Burroughs Wellcome Fund Careers at the Scientific Interface Award, the Krishna Kumar New Investigator Award from the North American Neuromodulation Society, the Presidential Early Career Award for Scientists and Engineers, and the Whiting School of Engineering Robert B. Pond Excellence in Teaching Award.

CHUCK MONTAGUE, PHD

Dr. Chuck Montague received a BS in engineering physics (1974) from Lehigh University and his PhD in biophysics (1985) from Johns Hopkins University. After four years of working at the Naval Research Laboratory, he moved to the analytical instrument industry and held increasing positions or responsibility in engineering, marketing, and engineering management.

From there he joined Maryland's Department of Business and Economic Development. He was involved in the formation and launch of the Maryland BioCenter, where he managed a translational funding program. In 2012 he had the opportunity to return to Johns Hopkins to manage the Johns Hopkins-Coulter Translational partnership for five years in the Department of Biomedical Engineering, to work on the department's translational activities. He was part of the team that won one of two Blueprint Neurotech Medtech Incubator awards, which he actively managed until his recent retirement.

Working with local companies for more than 15 years, he has been active in the entrepreneurial ecosystem of Maryland. He is an advisor to several companies and has been a board member of local incubators. He has been a mentor in the C3i and I-Corps program working with start-up teams. He regularly provides reviews for the NSF programs, Johns Hopkins, and University of Maryland translational funding awards.

COURSE DETAILS

Date: September 26, 2024

Duration: 9:00 AM–4:30 PM (lunch will be provided from 12:00–12:30 PM for in-person participants)

Location: JHU Stieff Silver Building, 810 Wyman Park Dr, Baltimore, MD 21211 Rooms 205, 206, 207

Format: In-Person with option to join as Online Observer

CEUs: 1.0

Investment:(tuition remission for JHU faculty and staff):
Participant with Submission (In-person, 7 max): $2,500
Participant (In-person, 10 max): $1,000
Online Observers: $750

REQUIREMENTS

PARTICIPANT WITH SUBMISSION

To be an Participant with Submission, you must submit a draft of your proposal to Lifelonglearning@jhu.edu by Friday, September 20 before the workshop begins. The faculty will review and select which drafts to work through during the workshop.

PARTICIPANT

Participants are not expected to submit a draft proposal. However, you will be part of review and feedback process

ONLINE OBSERVER

As a Online Observer, you are not expected to submit a draft proposal. Online Observers will gain an understanding of how to strategically approach writing their grant submissions.

MATERIALS FOR DAY

Writing a strong “Specific Aims” or “Vision and Goals” one-pager for an NIH or NSF grant involves clear and concise communication of your research proposal. Here are the steps to achieve this:

IDENTIFY THE PROBLEM:

- Clearly define the specific problem or question you intend to address.
- Provide relevant background information to establish context.

HIGHLIGHT SIGNIFICANCE:

- Explain why the problem is significant and how it relates to public health or scientific knowledge.
- Cite statistics or evidence to underscore the importance.

ADDRESS PRIOR LIMITATIONS:

- Discuss why previous approaches or studies have not fully addressed this problem.
- Identify the limitations of prior art, emphasizing gaps or shortcomings.

PRESENT YOUR BIG IDEA/APPROACH:

- Articulate your innovative approach or hypothesis succinctly.
- Explain how your idea overcomes the limitations of previous research.
- Highlight the novelty and potential impact of your approach.

ESTABLISH YOUR EXPERTISE:

- Briefly state your qualifications and expertise that make you the right person (or your team the right people) to tackle this problem.
- Mention relevant experience, skills, or resources. Note that this section can be omitted if space is required but necessary for career or investigator awards.

OUTLINE SPECIFIC AIMS:

- List 2–3 specific aims or objectives that you plan to accomplish.
- Each aim should be clear, measurable, and directly related to the problem.
- Provide a brief description of the methods/approaches you will use for each aim.
- Total 2-4 lines for each aim.

EMPHASIZE IMPACT:

- Explain the potential impact of your research if you successfully complete your aims.
- Describe how your findings could lead to changes in clinical practice, policy, or scientific understanding.
- Connect the project's goals to broader implications for the field or society.
- 2–3 lines max at the end.

CONCISE FORMATTING:

- Keep the document to one page, using clear and concise language.
- Use headings, bullet points, and visuals (if appropriate) to enhance readability.

PROOFREAD AND EDIT:

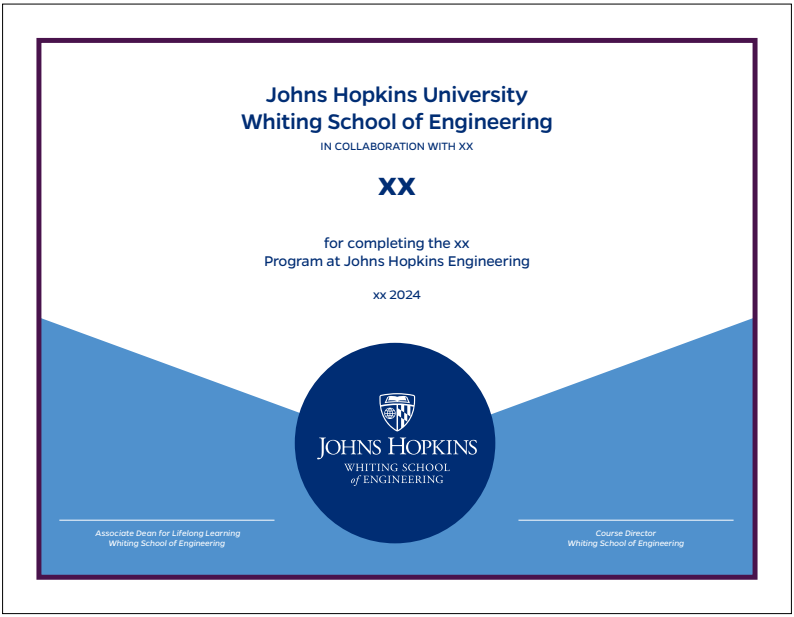
- Ensure that your one-pager is free of grammatical errors and typos.
- Seek feedback from colleagues or mentors to refine your document. This is what we will do during the workshop together!

FINAL REVIEW:

- Review your one-pager to make sure it effectively conveys the importance and feasibility of your research.
- Ensure that all sections flow logically and cohesively.
- Remember that clarity and brevity are key. Reviewers have limited time to evaluate proposals, so make sure your one-pager is compelling and easy to understand.

CERTIFICATE OF COMPLETION

All participants that successfully complete the course will receive a Digital Certificate of completion from Johns Hopkins Engineering Lifelong Learning.



ACCESSIBILITY

AND DISABILITY ACCOMMODATIONS

As Johns Hopkins University works to foster diversity and build a campus culture of inclusion, it is committed to ensuring people with disabilities enjoy full participation in the university's programs, services, and benefits. Johns Hopkins seeks the continuous improvement of accessibility on its campuses and in its activities and prohibits unlawful discrimination on the basis of disability.

NEW STUDENTS/LEARNERS

To establish eligibility for disability-related accommodations and services:

1. Complete the SDS online application through our university-wide database, Accommodation Information Manager (AIM).

2. Submit documentation using the link received after you submit the application.

3. Schedule a meeting with Dayna Geary, SDS Coordinator for Lifelong Learning, to discuss your needs as well as potential accommodations and services.

Please review the Documentation Guidelines for Individuals with Disabilities for more information on supporting documentation.

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