



# Embedding Science Communication Training in a UM1 Hub to Enhance Research Impact



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## The Art of Science Communication

The **Art of Science Communication (ASC)** course was developed in 2015 by the **American Society for Biochemistry and Molecular Biology (ASBMB)** to provide scientists with foundational training in communicating their work to non-expert audiences.<sup>1</sup> Recognizing the growing need for public engagement and interdisciplinary collaboration, ASC equips participants with tools to translate complex scientific concepts into accessible language.

In In 2022, the course was revised to reflect the evolving communication landscape, incorporating new strategies and approaches to better support scientists across career stages.

A survey of more than 150 former course participants found that ASC provides significant professional development benefits, including increased confidence in science communication across all career stages.<sup>2</sup>

## Blended Model

In addition to its online format, ASBMB supports blended versions of the ASC course—bringing it directly to institutions for customized implementation. These models combine online content with in-person facilitation and have been used to:

- Integrate ASC into existing curricula
- Support faculty and staff development
- Build institutional capacity for public engagement

In 2024, **NUCATS** Implemented the ASC course as an initiative to enhance professional development opportunities and to strengthen researchers' ability to communicate their work to broad audiences.

## Course Format

The ASC course follows a flipped classroom model over eight weeks, combining asynchronous video lectures with live discussion sessions led by trained facilitators. Participants develop and refine a science presentation tailored to a non-expert audience, culminating in a final recorded talk. Each week includes homework assignments, peer review, and guided discussions to reinforce learning and foster community.



Figure 1. Weekly Overview of the ASC Course Content

## Year 1 Highlights

In its first year, the ASC course received interest from over 115 individuals. Due to high demand and limited facilitator capacity, registration for each session closed within one week. The course was offered three times in Fall 2024 and twice in Winter 2025.

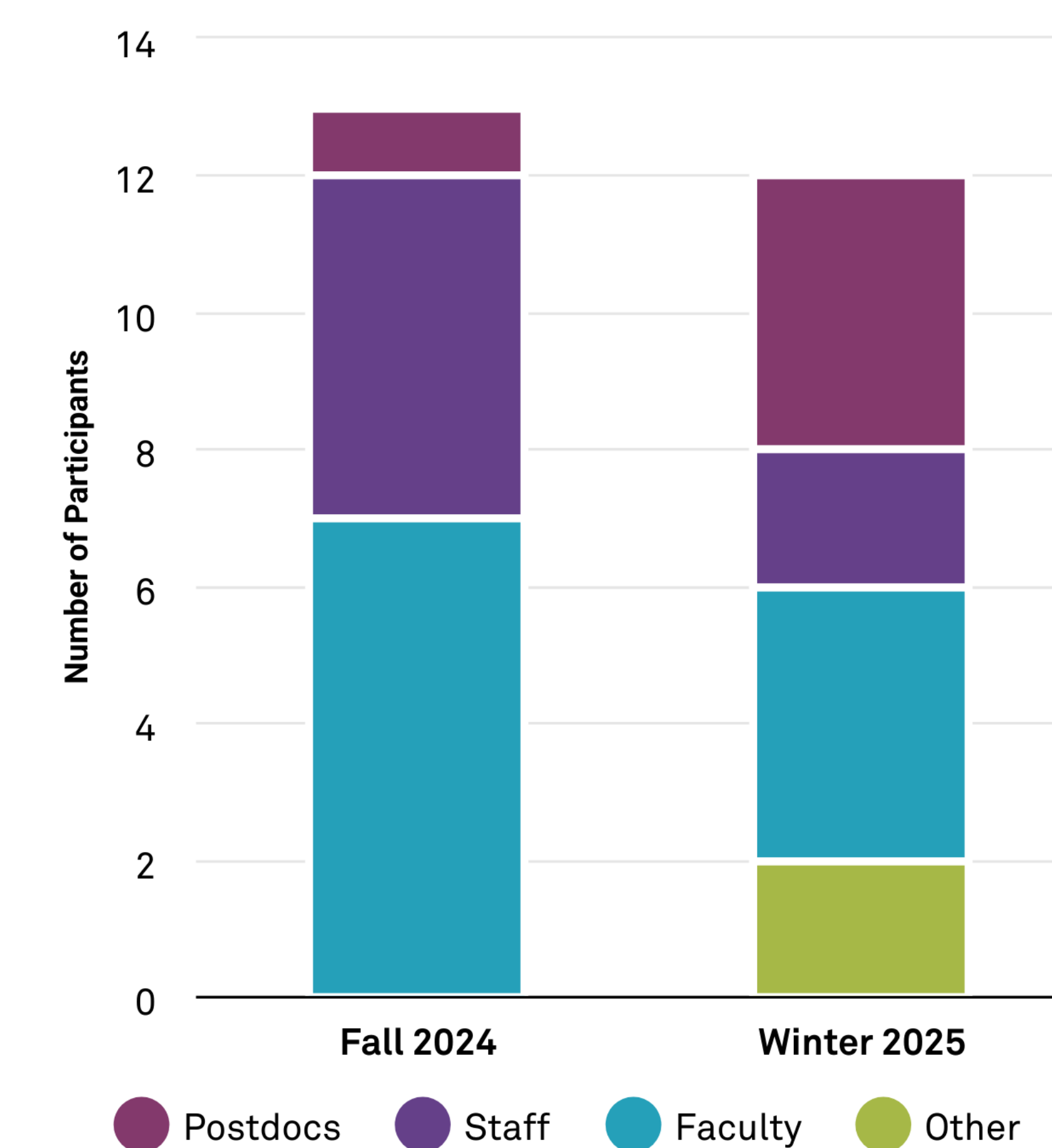


Figure 2. ASC Course Participants by Role

“My biggest takeaway was learning to recognize common misconceptions scientists often have when communicating with non-scientific audiences,”

- Winter 2025 ASC Course Participant

## Considerations

A major barrier to scaling the ASC course is the limited number of trained facilitators. The course is designed for small-group learning (max ~8 participants) to ensure meaningful discussion and personalized feedback.

ASBMB uses a train-the-trainer model, recruiting successful course alumni to expand instructor capacity. To support its launch at Northwestern, we partnered with facilitators from peer institutions and are actively building an internal alumni network.

## References

<sup>1</sup>Greer et al., *J Microbiol Biol Educ.* 2018. 19(1):19.1.26.

<sup>2</sup>Swords et al., *J Microbiol Biol Educ.* 2023. 24(2):e00037-23.