Science for future religious leaders: principles, practices, and possibilities of the Science for Seminaries program

By Lucas John Mix and Katharine E. Hinman

How can we better prepare seminary graduates to engage with critical issues of science and society in their ministry and communities? The Science for Seminaries program provides a successful framework for bringing science engag ment into theological education to help students lead their communities in addressing critical questions in an age of rapid scientific and technological advancement.

Science and technology have a strong and growing influence on how we live and see the world. They interact with religion at every level. Faith informs engagement with science and technology, and faith leaders play an important role in this. Believers turn to their pastors and teachers for help interpreting and applying the concepts. Religious leaders also contribute to public narratives of science in action, through policy and public awareness. Science, meanwhile, can empower mission and ministry.

Science for Seminaries (SfS) began as a way to connect church leaders with leading science and scientists. In 2014, the *Dialogue on Science, Ethics, and Religion* program (DoSER) of the *American Association for the Advancement of Science* (AAAS) partnered with The Association of Theological Schools (ATS) to bring science to seminaries in North America. In 2020, *Equipping Christian Leadership in an Age of Science* (ECLAS) at the University of Durham embraced the SfS model and spread the program in the UK and internationally. Together, they have provided grants to more than 65 schools in 15 countries on four continents with broad theological diversity. Across the spectrum, students and faculty report greater comfort with science, deeper understanding of its relevance to faith and ministry, and more creative, effective engagement around pressing issues.

SfS brings together scientific and religious stakeholders, promoting world-class science and well-informed theology. And, while the grants have helped improve impact and reach, the key principles and core practices of SfS can be beneficial for any organization training religious leaders in an age of science.

Key principles

Science for Seminaries is defined by three key commitments:

1. Science in the core curriculum

Education for ministry faces severe time constraints. SfS intentionally integrates science engagement in required

classes, showing how it applies to questions students already face. In academic formation, this may address contrasting knowledge claims (e.g., paleontological and biblical stories of human origins; neuroscience and free will accounts of choice). In professional formation, it may address the use of science and technology in ministry (e.g., engaging neurodiversity in preaching; online apologetics). Explicit engagement around spiritual questions has also proved fruitful (e.g., spiritual aspects of science narratives on human origins, identity, and future).

2. Contextualization

Science engagement in theological education is not one-size-fits-all. SfS does not dictate which scientific disciplines must be included, what courses must be modified, or what theological approaches should be used. Rather, seminaries can determine where science engagement will be most fruitful. Any opportunity to walk through a science-engaged theology scenario with an instructor gives students permission to do the same. It models the process for future use in ministry.

3. Not just science, but scientists

Knowledge is formed in community. SfS brings in practicing scientists to share the philosophy and methodology of their science, not just the results. This helps seminarians see how knowledge claims work—why scientists do what they do and reach the conclusions they do. Future religious leaders learn to identify with a scientist as a fallible, but rigorous thinker who cares about truth and conse quences. Scientists, in turn, see how their research is perceived and applied.

Core practices

Science for Seminaries grew through reflection on successful engagement. Three core practices highlight learnings from past cohorts:

1. Be specific

Buy-in from local stakeholders is crucial, specifically seminary leaders and senior religious leaders who sponsor and eventually oversee graduates. Projects should start with issues of immediate relevance to the religious community (e.g., viruses and vaccines, machine learning, climate change) and identify relevant scientific and theological experts. Posing specific questions within the existing frameworks already taught in the seminary allows instructors to model thoughtful and well-informed engagement.

2. Be open

Once discussion becomes concrete, it may raise deeply personal issues for students and stakeholders. Generous time for reflection and feedback is critical. Programs become transformative when they listen to many voices and create spaces for mutual learning. The science should be well-done by scientific standards and the theology well-done by theological standards. If the two conflict, that raises interesting questions of how the conflicts are resolved. We have found it best to address tensions directly, with intellectual rigor and pastoral sensitivity.

3. Make connections

For many students, theological education is already quite a steep learning curve. Adding science engagement can be destabilizing. Seminaries can encourage thoughtful engagement while still providing footholds for their students within their own religious traditions. These footholds may be dogmatic (e.g., creeds or doctrines), ethical (e.g., "how do we respect human dignity in this?"), methodological (e.g., orientated in scripture), or social (e.g., built in networks of trust). SfS allows future religious leaders to remain anchored in their own tradition while connecting them with scientists who work near them or work in areas of interest to them.

Future possibilities

Knowing the importance of science engagement for future religious leaders, faculty, and institutions can empower their students to address scientific topics faithfully. The SfS approach can produce dramatic improvements in science outreach—a goal for scientists—as well as academic, vocational, and spiritual formation for students—a goal for church leaders. Still,

there is room for expansion and improvement. As science engagement in theological schools expands, SfS hopes to see more shared resources, such as those already available at ScienceReligionDialogue.org and ECLASProject.org. SfS also recognizes a critical need to diversify the discussion beyond. Science education, theological education, and science engaged theology often default to professionalized, hierarchical, and West-centered norms. Diversifying educational materials, including different voices, and cultivating openness can improve all three endeavors. In particular, SfS wants to call for projects co-developed by established communities in both science and faith. Broadening the discussion beyond the classroom is also critical for the move from education to empowerment of faith leaders. Science interacts with faith in the lived experience of all believers.

As science and technology advance, it will become increasingly important for religious leaders to have these skills—engaging with science in both word and deed. The Science for Seminaries approach equips them to do precisely this. Informed by good science and good theology, future religious leaders can be empowered to apply them both in their particular context to address the needs of their particular community.

Upcoming Grant Opportunities

DoSER will soon open calls for proposals for two initiatives aimed at enhancing science engagement in theological education. The Science Engagement for Congregational Flourishing *project offers grants to providers of continuing education for Christian congregational leaders in the US to develop educational offerings that incorporate science into ministry contexts.* The Climate Science in Theological Education *project provides grants to theological education providers in the US and Canada to integrate climate science into their programs. Additionally, ECLAS will open applications for its next cohort of Science for Seminaries grants in the summer of 2025, targeting seminaries in the UK and Republic of Ireland.*

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