The BioSpine Initiative

What is the BioSpine Initiative?

The BioSpine Initiative is a project in the School of Life Sciences (SoLS) to develop, implement, and evaluate an integrated undergraduate curriculum in the Biological Sciences. This project leverages adaptive courseware for engaging students in frequent formative activities and assessments that adapt to the needs of individuals. In class, instructors will use evidence-based methods of teaching to engage students in real-world scenarios and problem-solving, helping students apply biological models in a collaborative setting.

Why is the BioSpine Initiative important?

The BioSpine Initiative will produce an evidence-based, faculty-generated curriculum that evolves with the changing needs and priorities of the degree program in Biological Sciences. The success of the initiative will be judged by the persistence of students within the program, the rates of graduation from the program, and the knowledge and skills demonstrated by our graduates. Initial data suggests that students have performed better in courses after SoLS adopted adaptive courseware and problem-based learning.





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How is the BioSpine Initiative implemented?

The BioSpine Initiative started with disciplinary teams of faculty who developed learning goals for the degree program. This team is currently aligning assessments of learning outcomes and will ultimately create structured activities to help students achieve the learning goals. The faculty are linking their learning activities in adaptive courseware called CogBooks, which enables a student to progress or remediate as needed. In CogBooks, a student in an advanced course can easily access learning activities from previous courses in the curriculum. Currently, the BioSpine Initiative engages about 50 faculty and 10 staff members. We seek to expand participation as the project progresses.



Questions?
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