

# Leveraging the AAU Undergraduate STEM Education Initiative to understand and advance the institutionalization of STEM teaching & learning reforms

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**Purpose:** The *Leveraging the AAU STEM Education Initiative* project aims to examine the institutional landscape in which innovations to undergraduate STEM education take place. We are interested in examining the approaches and leadership roles that campuses are putting in place to support undergraduate STEM education reforms.

This project is part of the AAU Undergraduate STEM Education Initiative at large. It grew out of an awareness that multiple efforts to improve undergraduate STEM education are underway on AAU campuses. Further, in our Five-Year Status Report on the AAU Undergraduate STEM Education Initiative, we identified several cross-cutting strategies institutions are implementing to achieve systemic improvements in undergraduate STEM education. In the present study, we are visiting eight AAU campuses that have developed approaches to advance and coordinate multiple undergraduate STEM education reforms to achieve sustainable change. Our goal is to interview key individuals and units to better understand the benefits and limitations of these approaches and understand the institutional context that influence these approaches.

**Respondents:** To address the questions AAU seeks to answer, AAU has requested to meet with individuals who are responsible for doing the work of coordinating and aligning educational improvement efforts. Examples include but are not limited to: individuals who have leadership roles in centers and units, administrators with roles in the provost's office, college deans, department chairs, and clusters of faculty members. Interviews will occur individually or in small groups.

## SAMPLE Interview QUESTIONS

From your perspective, what are the two or three key innovations and reforms in undergraduate STEM education on campus? Which are the reforms that have truly “stuck” or taken hold (i.e. in departments, colleges, or university levels)?

Why have they worked? What factors have been most influential in the success of each of the above innovations? What have been the biggest challenges? What have been key outcomes and impact?

We have been seeing different ways campuses have been coordinating and organizing leadership positions, units, and structures to make long-lasting and scaled improvements to undergraduate STEM education. How has this played out on your campus? What do you think needs to be in place to do this effectively?

What has been the influence of AAU on reforms in undergraduate STEM education on campus? From your perspective, what can AAU do to help campus reform efforts?