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Creating a Faculty Learning Community to Support Scholarship of Teaching and Learning among STEM University Faculty

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UWise Program

University of West Georgia's Institutional STEM Excellence (**UWise**) program is designed to help students be successful in STEM courses and to help them explore STEM career options, including K12 STEM education. **UWise** also supports mini-grants for faculty that enable them to use innovative approaches to STEM teaching and learning.

Faculty Mini-Grants

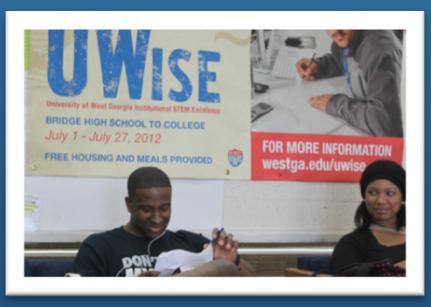
Through **UWise** mini-grants, UWG faculty receive support to develop projects that improve instruction and increase student success in STEM courses. Faculty are encouraged to try innovative approaches to teaching and collect multiple forms of assessment data as they engage in SoTL practices.

Mini-Grant Projects

In the first two years of UWise, mini-grants have supported instructional innovation in biology, chemistry, computer science, education, math, and physics courses as well as special topics courses focused on STEM careers. Faculty are examining problem-based learning, ways to support learning through video and other technology, tutorials, problem-solving sessions, and supporting computer programming courses through engagement with robotics.

Year 1 Mini-Grant Results

Faculty presentations of their Year 1 results revealed uneven performance in the areas of research design, data collection, and data analysis to gauge effectiveness of instructional interventions. The UWise team examined and discussed this result, concluding that university faculty in STEM disciplines have not been exposed to the kinds of social science and educational research methods used in SoTL to investigate changes in teaching and student learning. In hindsight, it was unrealistic to expect that STEM mini-grant recipients would be prepared to frame their projects within the SoTL paradigm.



Supporting UWise Mini-Grants through an FLC

To support Year 2 mini-grant recipients, faculty participants are taking part in a series of faculty development workshops that focus on research-design, instrument development, data collection, and data analysis. Workshops are facilitated by an outside consultant who is a STEM educational researcher. Goals for the FLC are to encourage collaboration and sharing of ideas and best practices among STEM faculty, empower faculty to use best practices of SoTL to reflect on and improve instruction and student learning, and enhance faculty SoTL.

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