

Co-curricular and Extracurricular Experiences of NSF-supported Scholars

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Extended Abstract

The Mathematics, Engineering, and Physics Scholars (MEPS) program at Jacksonville University (JU) supported by NSF since 2014, is preparing individuals for the STEM workforce by providing an educational experience that emphasizes student discovery. This program is designed to increase enrollment and improve retention of scholars in the three related disciplines. Scholars are selected annually based on academic ability and financial need. Faculty mentoring, tutoring, peer study groups, college survival skills training, career development, and undergraduate research experiences are all tools to help the scholars.

Each year activities are scheduled to promote a sense of academic community, allow mentoring towards academic and career goals and provide enrichment opportunities. Academic community is built through orientation activities, mask building, t-shirt design and movie and game nights. Mentoring occurs in these settings, but also through program elements including workshops with the Career Resource Center and Academic Support Center, and field trips to local engineering firms and businesses with a technology focus. Finally, enrichment opportunities include guest speakers, undergraduate research projects, Mathematical Contest in Modeling and field trips. MEP Scholars are actively participating in the following research projects: 1) a mobile and computer app for more efficient note taking for students across subject, 2) image recognition program for coral condition statistics, 3) A 3D-printed desk organizer, and 4) Design and Development of an e-Health System. In this paper, MEP Scholars present details of their projects and share their thoughts and reflections about the MEPS program and how the impact of this NSF-supported program has been expanded to other students in STEM fields.