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Service-learning in Mathematics Curriculum. Preliminary report.

Service-learning is a method of teaching and learning that enriches students' academic lives while fostering a sense of responsibility for others. This pedagogical tool requires faculty to reexamine their course design and incorporate strategies that enhance students' knowledge and sense of civic engagement, while preparing them for future careers. This presentation will focus on how service-learning activities are incorporated into upper level mathematics courses' curriculum. This novel approach uses students in lower level mathematics courses, such as algebra, trigonometry and calculus, as the community partner. Participating in service-learning, the advanced calculus students improved their knowledge of mathematical concepts and academic performance. It also challenged the advanced calculus students to consider their role while helping other students. The benefits of implementing service-learning as well as advantages and disadvantages of service-learning from the perspective of mathematics majors will also be addressed in the presentation. (Received September 17, 2010)