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Everyone's a Maker: Utilization of a Makerspace for all Degree Programs

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A makerspace is a collaborative workspace where engineers, designers, scientists, students, and hobbyists can create, fabricate, tinker and bring their ideas to life. Makerspaces are becoming more common in schools, public libraries, and higher education institutions. These spaces are meant to provide their community access to a wide variety of equipment ranging from basic hand and power tools, electrical components, 3D printers, and laser cutters to industrial-grade machinery such as CNC machines. Makerspaces in an educational setting enable students to tinker and learn through hands-on projects, which in turn help develop skills such as creativity, curiosity, teamwork, critical thinking and problem-solving. A common misconception is that makerspaces are only meant for engineering or engineering technology students, so this talk will focus on "clearing the air": Everyone is a maker and can use a makerspace facility! Ideas will be discussed on 1) How simple prototypes made in a makerspace can be used by instructors to demonstrate STEM (particularly science and mathematics) concepts and 2) how to make "making" part of your course by integrating makerspace projects, that will promote student problem-solving and innovation. This work was done in collaboration with Justin Suriano and Ashish Borgaonkar