

Building a Science-based University Sustainability Program with a Focus on Campus and Community Projects

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With increasing national and international interest in academic, corporate, and government sustainability, Florida Institute of Technology began to build initiatives in 2010 across two primary realms of university sustainability: academics, and campus/community projects. In terms of academic products, a new minor program was initiated in Fall 2010 that included new courses specific to sustainability and also required courses from each of four concentration categories: Environmental Sciences, Technology and Engineering, Business, and Social Sciences. With a major focus on application, FIT's Sustainability Minor Program has three times the enrollees of any of 25 other minor programs on campus and is graduating approximately 20 students per year from over 15 major programs from all 5 colleges on campus. Based on the success of this program and scoping of >70 U.S. universities with B.A. or B.S. programs in sustainability, we launched a B.S. program in Sustainability Studies in Fall 2013. This program includes two years of core science preparation including one year each of calculus, physics, chemistry and biology. The last two years allow much customization with >100 different concentration courses available including intermediate-level courses in business and social sciences, critical areas to ensure that science/technology is applied in "real-world" venues. Required senior "capstone" projects use a *campus classroom* model: students develop and manage applied sustainability projects on campus or in the community to generate solid learning experiences and sharpen marketable skills. These efforts include student-staff-faculty teams working on issues such as: recycling, green buildings, composting, and sustainable events. In spring 2014, student teams are doing capstone projects with FIT Facilities Operations and Business Retail staff that include drafting of the first campus sustainable transportation plan, stormwater management plan, and sustainable purchasing plan. Students are also completing the third year of off-campus projects with a focus on bringing best practices in sustainability to large community events and environmental planning.