

NYU-Poly Awarded Title III Grant

Polytechnic Institute of NYU (NYU-Poly) was recently awarded a five-year, \$1.92M grant from the U.S. Department of Education under the Strengthening Institutions project. The goal of this program, also known as Title III, Part A, is to help “institutions of higher education to become self-sufficient and expand their capacity to serve low-income students by providing funds to improve and strengthen the academic quality, institutional management, and fiscal stability of eligible institutions.” NYU-Poly will use the grant for the development and design of innovative educational technologies for instruction in science-, technology-, engineering-, and math-related disciplines.

NYU-Poly, which became affiliated with NYU in the summer of 2008, has a rich history of leadership in the development of such technologies as scientific computing, networks, software engineering, and digital media. Now it also offers programs in interaction design (the shaping of interactive products and services with a specific focus on their use¹), human computer interaction, 3D graphics, visualization and simulation, and “serious games.” In addition, NYU-Poly Dean of Undergraduate Academics Iraj Kalkhoran notes that, “NYU-Poly has fully implemented the principles and practices of project-based learning, allowing us to effectively build ‘invention, innovation, and entrepreneurship’ (i²e) into the undergraduate experience of our students. It is a goal of the Institute that advanced students in these subjects will soon think it perfectly natural to work with research faculty to create enterprises out of the products they develop. Ideally, students will be running their own companies by the time they graduate.”

Students at NYU-Poly are already being taught to use specialized systems — including CAD, LabVIEW, and MATLAB — for project development and design in their courses. This important new grant will also make it possible to supply students with additional educational technologies for the completion of course objectives and provide them with advanced methods and examples for understanding abstract and complex theories. Dean Kalkhoran observes, “The challenge for students at NYU-Poly is to be aware of the continual technological changes taking place within their fields. The inclusion of educational technologies to support curricular objectives will not only advance student learning, but also provide access to cutting-edge technologies for communication, collaboration, and innovation.”

The grant will be used in a number of ways, including the provision of funding to:

- establish a center for faculty innovation in teaching and learning, allowing for the development of educational technologies to support NYU-Poly learning objectives; introduce development programs under which NYU-Poly faculty can explore innovative technologies for teaching and learning; and produce digital courseware and resources to support their curricular needs;
- create a digitally integrated learning environment by enhancing existing smart classrooms and building new ones throughout the institution;
- implement a standard learning management system for online instruction and student communication; and
- upgrade NYU-Poly’s campus-wide wireless capabilities for enhanced security, speed performance, as well as accessibility and capacity for use by students and faculty.

Dean Kalkhoran adds, “To support the i²e model, a distinct educational experience is needed, one which combines formal classroom learning with outside-the-classroom activities. The success of this educational model is strongly tied to how successful we are in our undergraduate academic instruction.”

NYU-Poly plans include creating the Faculty Innovations in Teaching and Learning Center (FITLC). The Center will enable NYU-Poly faculty to use educational tools and resources that mirror their technologically advanced coursework. Thanks in part to the Title III grant, the FITLC will also make it practicable for NYU-Poly to develop new instructional technologies.

— Heather Stewart

¹ Source: www.interaction-design.org/encyclopedia/interaction_design.html