

# STEVENS INSTITUTE OF TECHNOLOGY: WEBCAMPUS

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## ABSTRACT

WebCampus.Stevens, recent winner of the Sloan-C Award for Excellence in Institute-Wide Online Teaching and Learning Programming, delivers some 160 courses in six online graduate degrees and 23 graduate certificates. Taught by more than 60 mostly full-time faculty, courses have now enrolled more than 4,000 students in 37 US states and in 28 countries abroad since it was launched in 2000. Paralleling those on campus, online courses are taught by the same faculty who teach face-to-face, using the same content. Online and on campus, students meet the same high standard, pay the same tuition, and receive the same degrees. Resolution of online intellectual property rights by Stevens has become a model for other online schools with faculty retaining rights for all other uses but online. Arrangements have been made with prominent engineering societies and industry associations to offer courses to nearly 800,000 members worldwide. WebCampus delivers Chinese graduate students at Beijing Institute of Technology a hybrid Master's program. The school is developing remote laboratories for online learners.

## KEYWORDS

online learning, graduate education, intellectual property rights, China, online laboratories

## I. STEVENS INSTITUTE OF TECHNOLOGY: WEBCAMPUS

Launched in 2000, WebCampus.Stevens graduate-level programs now include some 160 courses and are the recent winner of the Sloan-C Award for Excellence in Institute-Wide Online Teaching and Learning Programming. The school offers six online graduate degrees and 23 graduate certificates. Next year, the number of Master's degrees and graduate courses online is expected to increase significantly. Courses are taught by more than 60 mostly full-time faculty. Since its inception, more than 4,000 students have enrolled in 37 US states and in 28 countries.

WebCampus graduate programs parallel those on campus. Courses are taught by the same faculty who teach face-to-face, using the same content. Students must meet the same high standards as those accepted on campus and pay the same tuition. Degrees are also the same. Online graduate students have access to every university service available on campus—online application, registration, advising, and access to faculty, bookstore, library, e-mail, and technical support. Nearly all faculty who have taught online have

returned to teach again and report highly gratifying results from their experience. Eighty-six percent of WebCampus students say online learning is as good as, or better than, their face-to-face classes.

Resolution of online intellectual property rights by Stevens has become a model for other online schools. Stevens' policies have been reported in *The Chronicle of Higher Education* (see <http://chronicle.com/free/2000/11/2000112201u.htm>). The university's online property rights have been posted on the Educause site (see <http://www.educause.edu/asp/doclib/abstract.asp?ID=CSD1474>) and appeared in *Educause Quarterly* (see <http://www.educause.edu/ir/library/pdf/eqm0117.pdf>) and elsewhere.

WebCampus offers faculty an intellectual property rights model that permits them to retain rights to courses developed by them, which are then transferred to WebCampus for use online. Faculty compensation for developing and teaching online is at the highest rate for online instruction in the US. In addition, faculty receive royalties should their online courses be taught by someone else or licensed to third parties.

## II. WIDENING ACCESS

In addition to broadening access geographically, WebCampus has expanded its instructional capability range and scope through arrangements with some of the most prominent engineering societies and industry associations, with combined membership greater than 800,000 worldwide—Institute of Electrical and Electronics Engineers, Inc. ([IEEE](#)), Association for Computing Machinery ([ACM](#)), The American Society of Mechanical Engineers ([ASME](#)), American Institute of Chemical Engineers ([AIChE](#)), The Society of Naval Architects and Marine Engineers ([SNAME](#)), National Electrical Contractors Association ([NECA](#)), and the Global Wireless Education Consortium ([GWEC](#)). WebCampus has also been selected by the IEEE Communications Society to deliver its tutorials online. It also has negotiated arrangements for delivery of its online courses with the Boeing Corporation and a number of other Fortune 1000 companies. In 2003, Chinese graduate students of the Beijing Institute of Technology entered a hybrid Master's program in Telecommunications Management. WebCampus has also entered into negotiations to offer other degrees in China with several notable Chinese universities in Beijing, Shanghai, and elsewhere.

## III. WEBCAMPUS: QUALITY INDICATORS

In 2000, Stevens' Professor Hosein Fallah, compared his online with his face-to-face classes, concluding that there was no significant difference in student performance (see <http://www.sloan-c.org/publications/magazine/v4n2/fallah.asp>).

Grades of online graduate students compare favorably with graduate students in conventional face-to-face programs at Stevens—with both online and face-to-face classes offering the same content taught by the same faculty. A faculty survey reported that the performance of 73% of online students is the same as or superior to that of students in conventional classrooms.

Completion rate for WebCampus courses is more than 85%. A survey of students who have taken online courses found that 82% said their online graduate learning is comparable to, or better than, their face-to-face courses; that 84% found courses met their expectations; and that 94% found the online learning software easy to learn, or no more difficult than other software applications.

WebCampus maintains two full-time qualified WebCT training staff who provide in-depth training to faculty. Faculty are offered expert training during one full day session or four two-hour sessions over four weeks. Each year, WebCampus holds two colloquia where faculty meet to learn from each other. Online faculty are required to attend these training sessions and one colloquium each year. A survey of online faculty revealed that 73% found faculty instructional and technology support to be either good or excellent.

Despite the fact that WebCampus faculty receive the highest compensation of any online program in the United States, the economic return for Stevens has been substantial. Over the three and a half years since its inception, WebCampus has earned more than more than \$6.5 million.

In parallel with WebCampus, online learning remote laboratories are being developed by Professor Sven Esche at Stevens with grant funding awarded by the Sloan Foundation and the NSF. Last year, Prof. Esche's group was the recipient of a \$1.9 million grant to develop remote labs for online learning. WebCampus has been awarded grants from the Sloan Foundation, IEEE, and the New Jersey Virtual University totaling nearly \$1 million. Online courses at WebCampus.Stevens were fully accredited by the Middle States Commission on Higher Education in October 2002. In July 2003, under a grant to Stevens, Sloan launched its Greater NYC Online Learning Center with Robert Ubell, Dean of continuing Professional Education, as principal investigator and with Elaine Cacciarelli as Executive Director.

For WebCampus, the future looks bright, with more programs, more courses, and more students entering online learning in greater numbers in those fields in which have earned Stevens an enviable reputation in science, engineering, and management.

#### IV. ABOUT THE AUTHOR

**Robert Ubell** is Dean of Online Learning at Stevens. He has held a number of positions in publishing, e-commerce, and education. He was vice-president and editor-in-chief of Plenum Publishing Corporation, editor of The New York Academy of Sciences monthly, *The Sciences*, and American publisher of *Nature*. He was also founding publisher of *Nature Biotechnology*. He has held senior posts as an Internet executive-president of BioMedNet and executive vice president for new media at Marcel Dekker. Ubell was head of his own consulting firm, Robert Ubell Associates, representing such clients as Elsevier, Harcourt, Wiley, and McGraw-Hill, among dozens of others, including various nonprofit groups, such as the American Cancer Society and the American Institute of Physics. Ubell has consulted for numerous corporations and nonprofit groups, including the National Academy of Sciences, National Academy of Engineering, IBM, Xerox, Lotus, and MIT, Cambridge, and Columbia University presses.