



Stanford Center for Professional Development

Bridging Stanford and Industry

Andy DiPaolo
Executive Director



“Motorola no longer wants to hire engineers with a four-year degree. Instead, we want our employees to have a 40-year degree.”

**Christopher Galvin
President and CEO of Motorola**



“What our engineers and managers are saying is that the demands of their jobs are such that they can’t get away from work. Since they are working 60 hours a week, any education they get has to be at their convenience and available online .”

**Manager of Engineering Education
AMP, Inc.**



“I have seen great value in offering my course to industry students, but I need it to be as easy and transparent as possible.”

**Professor Kos Ishii
ME Department**



The Industry Education Challenge

- **Strengthen Stanford/industry relationships by offering career-long education to engineers, scientists and managers while accommodating the interests and capacity limitations of faculty.**
- **Build from a 34 year tradition as a leader and innovator in distance education.**



Stanford Center for Professional Development



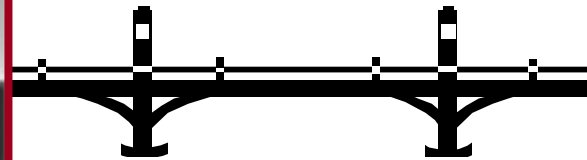
SCPD, in collaboration with Stanford faculty and industry experts, develops and delivers academic and professional education programs online, via video, on-campus and on-site to meet the career-long education needs of technical professionals, managers, and executives.



Bridging Stanford and Industry



**Stanford University
Curriculum**



Industry Education



**Academic
Programs**

**Professional
Education**



SCPD Customers

Top 30 in 2002

- Sun
 - Microsystems
 - Cisco Systems
 - General Motors
 - Lockheed Martin
 - Agilent
 - Intel
 - Hewlett Packard
 - Oracle
 - Synopsys
 - Nvidia
 - Ford
 - NASA-Ames
 - IBM
 - LLNL
 - Space Systems/Loral
 - United Technologies
 - Xilinx
 - Nat'l Semiconductor
 - Cadence Design
 - Altera
 - Applied Materials
 - NUS America
 - Toyota
 - Compaq
 - Cypress Semiconductor
 - AMD
 - Electronics for Imaging
 - Microsoft
 - Juniper Networks
 - Adobe Systems
- Total = 420



SCPD Academic Offerings

- **Part-time Master's Degree - Honors Cooperative Program**
- **Graduate credit courses - Non-Degree Option**
- **Academic certificates**
- **Audit Program**
- **250 graduate courses offered to industry on television and internet.**





Part-time Master's Degree Programs on Campus and at a Distance

Engineering Departments

- Aeronautics & Astronautics
 - Bioengineering
- Chemical Engineering
- Civil & Environmental Eng
- Computer Science *
- Electrical Engineering *
- Management Science & Eng *
- Materials Science & Eng
- Mechanical Eng

** MS degree can be completed at a distance.*

Other Disciplines

Applied Physics

- Education – Learning Design & Technology

Interdisciplinary Programs

- Scientific Computing & Computational Mathematics
- Biomedical Informatics*



Academic Certificate Programs

Over 20 programs - Designed for Industry

Departments

- **Aeronautics & Astronautics**
- **Computer Science**
- **Electrical Engineering**
- **Management Science & Eng**
- **Materials Science & Eng**
- **Mechanical Engineering**

Interdisciplinary Programs

- **Bioinformatics**
- **Product Creation and Innovative Manufacturing**
- **Five new programs for 2003-04**

All delivered via television and the internet.



Examples of Academic Certificates

- **Computational Fluid Dynamics**
- **Spacecraft Design & Operation Proficiency**
- **Advanced Software Systems**
- **Wireless Personal Communication**
- **Thin Films & Nanomaterials**
- **Design for Customer Value**
- **Engineering Risk Analysis**
- **International Security**
- **Computational Genomics**



SCPD Professional Education Offerings

- **Non credit short courses & certificate programs**
- **Course licensing**
- **Research seminars**
- **Custom programs**
- **Courselets**





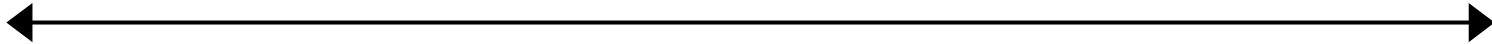
Professional Ed Examples

- **Advanced Project Management**
- **Redefining IT Leadership**
- **Cardiovascular System for Engineers**
- **Bioinformatics: Methods & Techniques**
- **Investment Risk & Simulation**
- **Virtual Design and Construction**
- **Computer-Assisted Medical Decision Making**
- **Global Entrepreneurial Leadership**
- **SemiZone Semiconductor Courses**



SCPD Delivery Systems

- Five TV channels
- Two-way video
- Satellite
- Videotape
- Multimedia
- Online
- On campus
- On-site
- Blended approaches

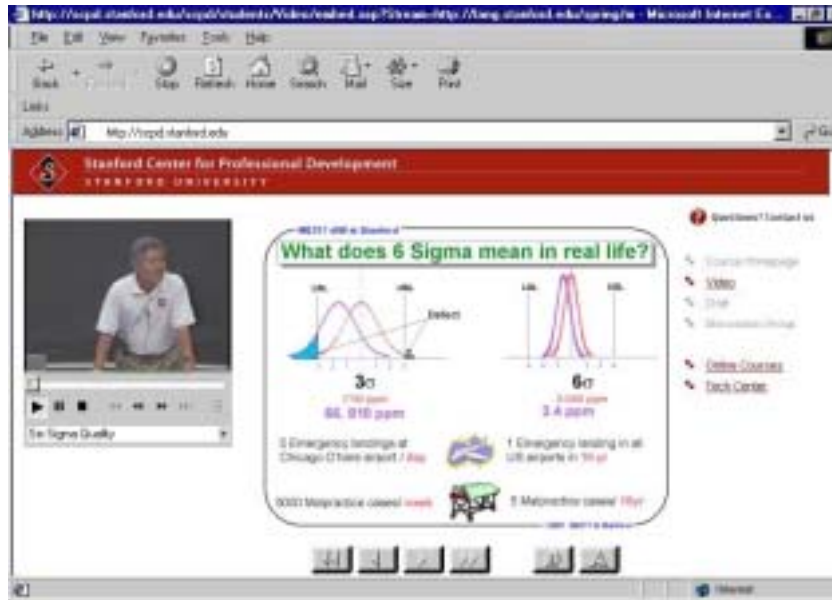


Stanford Instructional TV Network
Stanford Online





Stanford Online



- Delivers academic and professional education courses worldwide.
- Over 1200 online courses since 1997.
- Pioneered at Stanford - became recognized, award-winning model.
- First university to offer online MS degree worldwide.



SCPD Facilities and Systems

- **Nine teleclassrooms with major renovations underway**
- **Videoconference facility**
- **Stanford Online production lab**
- **Television production studio**
- **Video and web production facilities**



Examples of Initiatives

- **Stanford Online campus-wide**
- **Courselets project**
- **Korea**
- **Singapore**
- **Partnerships with SemiZone, Info Week, IPS and Dell**
- **Alumni offerings**
- **Facilities renewal and expansion**



Stanford Online Courselets

- **Self-contained, integrated set of learning materials designed as custom tutorial.**
- **Covers a small set of engineering, science, or management concepts.**
- **Offers self-test and indexing to determine placement.**
- **Media used may include text, audio, video, simulations, etc.**



SCPD By the Numbers

- **5000 industry enrollments annually**
- **420 member companies**
- **250 credit courses leading to MS degrees and certificates**
- **50 professional education courses**
- **25 research seminars**
- **50 courselets under development**
- **10,000 new program hours annually in digital form**



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Questions? Contact us



Welcome to the **Stanford** Center for **Professional** Development

The Stanford Center for Professional Development (SCPD) at Stanford University brings award-winning degree and non-degree Academic Courses from the School of Engineering and affiliated departments to professionals in industry and government worldwide.

SCPD's Professional Education (ProEd) unit helps participants advance in their fields and expand their networks through a wide range of short courses in bioinformatics, clinical informatics, computer science, engineering, and management. Courses are offered in a variety of distance learning instructional formats, as well as on campus.

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