

Learning Standardization:

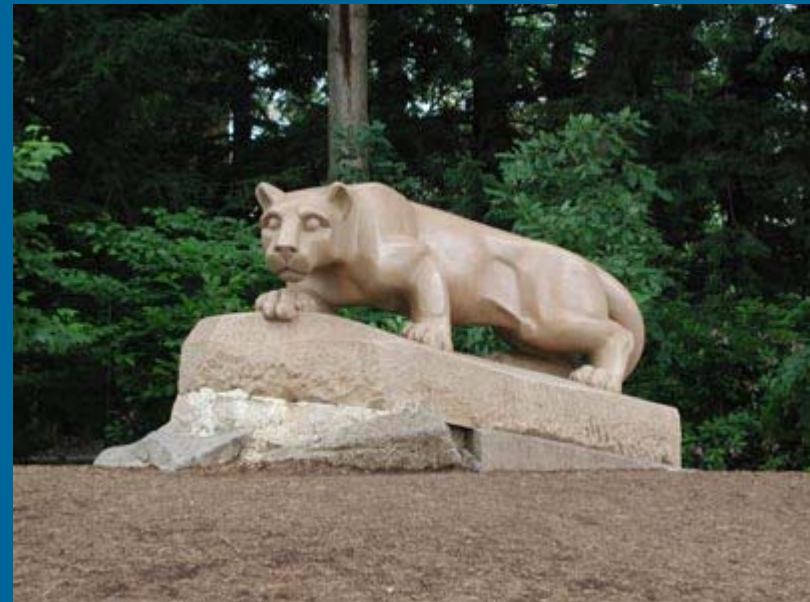
The College of
Information Science and Technology (IST)
at Pennsylvania State University (PSU)

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The University and College

Standardization @ IST





Penn State University

Size



Scope



College of
Information Science and Technology



Penn State University: Size

Enrollment

Colleges

87,163 students
(44,832 at the main campus)
(10,443 graduate students)

15 colleges
23 campuses

Campuses



Penn State University: Scope

Undergraduate Degrees

Graduate Degrees

158 BA/BS programs
>150 graduate degree programs
Many top 10 programs
666,446 conferred overall

\$765,000,000 active research programs

Funded Research

Size

Scope



Undergraduate Students

Graduate Students

1854 undergraduate students
98 graduate students (MS/PhD)
19 campuses

Campuses



College of IST: Scope

Undergraduate Degrees

Graduate Degrees

Academics: Ranked 5th
Research: Ranked 7th
IST: BS, BA and MPS
Security and Risk Analysis: BS
PhD: 4 fields of study
Spring 2010: placed 89% BS/BA within 3
months

Placements

Courses of Interest

Additional Programs



The Near-term Future



Standardization @ IST: Courses of Interest

IT in the International Context

IT Project Management

All the courses I teach all include
standardization
as a primary element.

Systems Integration Sequence

Courses of Interest: IT in the International Context

Standards Facilitate Trade

Standards Enable
Flattening the Earth

Culture, Economics, Sociology, Government, etc. form an amalgam that determines the features and functions of all IT systems in the world.

Standardization Processes Affect and are
Affected by All the Social Sciences



Courses of Interest: IT Project Management

Exchange data between
project management S/W
packages

Case:
Build a Data Center

Problem-based learning requires knowledge of
standards.

Instructor's illustrative
examples

Courses of Interest: Systems Integration Sequence

Extensible Markup Language
(XML) and derivatives

Universal Modeling
Language (UML)

Progressions:

Learn tools (XML and UML)
Apply tools to build business application
Solve a live client's problem

Live client project

Standardization @ IST Additional Programs

Guest Lecturer in Courses

Weekly Faculty/Student Seminar

Standardization permeates
non-course activities.

Funded Research



Additional Programs: Guest Lecturer in Courses

Focus on application
development

Involves 'Where do
standards come from?'

Students in many courses are exposed to lectures about how standards and standardization relate to their course.

Forum to increase student
awareness of standards and
standardization

Additional Programs: Weekly Faculty/Student Seminar

Focus on dissertation topics
in Computer Science and
Information Science

Provide a test bed for
students with English as
second language



Forum to urge students to become
familiar with standardization

Additional Programs: Funded Research

How is international cooperation affected by standardization?

Which standards should be used for 'this' research?

Standards and standardization affect many academic research projects.

Standardization @ IST

The Near-term Future

Standardization affects
society in many ways

IT affects society in many
ways

A general education course about
standardization is being developed, together
with a textbook.

IST faculty are taking the
initiative

Undergraduate and
graduate students

Funded research

The College of Information Science and
Technology at Penn State University is building
a robust standardization theme.

University-wide scope