

University of Pittsburgh

# School of Information Sciences



**Connecting People, Information, and Technology**

**Information Science**  
**Library and Information Science**  
**Telecommunications**



## Welcome from the Dean



On behalf of the students, faculty, and staff at the University of Pittsburgh School of Information Sciences (SIS), we are pleased that you are exploring the options available in the exciting world of the information sciences. We invite you to browse our Web site ([www.sis.pitt.edu](http://www.sis.pitt.edu)) to learn more about our programs, the degrees we offer, and especially our faculty and students who perform incredible work at one of America's top research institutions.

SIS is one of the nation's pioneering schools in the education of information professionals, with a history that reaches back more than 100 years to the days of Andrew Carnegie. Throughout that history, we have built and sustained a tradition of innovation and excellence. Today, our programs are among the very best in the country and attract students and visiting scholars from around the world.

SIS positions itself at the nexus of technology, information, and society. The challenges and opportunities confronting society in the 21st century require professionals who are not only technologically capable, but also skilled in the management of information and who understand how technology and information converge to serve the interests of the individual and society.

At SIS, you will find the opportunity to expand your knowledge and skills in a wide-ranging array of information degrees and specialties.

- We offer programs leading to a Master of Library and Information Science (MLIS), a PhD in library and information science, and Certificates of Advanced Study. For students who are better served by a distance education program, we offer a Web-based FastTrack MLIS program.
- In the area of information science, we offer a Bachelor of Science and graduate study leading to the Master of Science and the PhD.
- In the area of telecommunications, we offer the Master of Science in Telecommunications (MST) and PhD in information science with a telecommunications concentration.

More than 800 students from 32 countries are currently pursuing these opportunities and honing new, marketable skills at SIS. We offer students excellent computing facilities and library resources and an opportunity to live and learn in one of the best urban environments available anywhere. At Pitt, it is truly the case that the city is our campus.

I look forward to personally welcoming you into our community.

Ronald L. Larsen  
Dean and Professor

## What Makes SIS Graduates Succeed?

### Information Sciences

The information sciences are a dynamic and ever-changing field. The flow of information in society continues to increase and evolve as new technologies are developed every day, while demands for methods of distributing and managing this great influx of data, often times instantly, has never been greater.

At the University of Pittsburgh, we educate professionals to become leaders in the information sciences. Our programs, regardless of specialization or profession, are multidisciplinary, hands on, and uniquely designed to meet the needs of government, industry, public service, and education. We focus on providing both depth and breadth in our outstanding programs to enable individuals to advance in their careers.

Our vibrant urban campus, located in one of America's great cities, provides collaborative opportunities in business, policy, computer science, engineering, education, medicine, biomedical informatics, health sciences, and more.

### A Personalized Program

The School of Information Sciences encompasses an array of disciplines and specializations, providing students the opportunity to take courses and to work on research projects in a vast range of subjects. Students may tailor a program suited to their diverse professional objectives or discover new and dynamic career paths.

Because the University is one of the top public research institutions in the world, students' educational experiences include working with faculty who perform at the leading edge of their disciplines. Whether it's developing computer networking solutions, solving virtual reality or robotics problems, addressing wireless security issues, or exploring the best methods of teaching young children how to read or navigate the Internet, it's all available at SIS.

### Educational Goals

We focus on people—perhaps the single most important thread connecting the disciplines offered within the school. While many other programs emphasize technology, SIS is concerned with the entire process—information architecture, navigation, and management. Multidisciplinary faculty teach a systems approach that enables our graduates to focus on people who use the technology and on how technology will improve their lives.

A primary educational goal is to teach current technology in class and create a sound theoretical foundation so that students can excel in today's job market from day one and advance throughout their careers

### Unmatched Experiences

"We provide education rather than training," said Martin Weiss, chair of the Department of Information Science and Telecommunications and associate dean for academic affairs and research. "Here, you'll receive an overall education so you can be an expert in many areas, whether it is consulting to help end users, companies, or developers of technology."

The value of attending a top-25 research university is significant. "We have people engaged at the leading edge of their field," said Weiss. "You can't be in a room of researchers without catching their enthusiasm and wanting to become involved.

"The foundations we build are stronger; our insight into the future is deeper; and the experiences we provide are unmatched.

"We enable people to make valuable contributions to society. Our people love what they do, and when you love your career, you feel like you never work a day in your life."



### Distinguished in the Job Market

"The blend of theory and application that SIS offers distinguishes its graduates in the job market because we have the necessary foundation of theoretical knowledge and practical experiences.

"Because Pitt's program takes an interdisciplinary approach to learning and not a narrow view, I could answer any question presented at my job interview—from the nuts and bolts of technology to high-level managerial issues.

"The MST program gave me such good skills that I could hit the ground running from day one. Plus, I have the foundational knowledge that enabled me to advance in the company."

**Joe Trost, MST 1993**  
Director of Software Sustaining Engineering, Broadband Routing and Switching Division, Marconi Plc.

## Specializations

### Library and Information Science

Built upon a tradition of excellence in library education started by Andrew Carnegie more than 100 years ago, the Department of Library and Information Science has earned a national and international reputation for having one of the finest graduate programs in the world.

Pitt's Master of Library and Information Science (MLIS) program was third in the latest *U.S. News & World Report* rankings of the 48 master's degree programs in the United States that are accredited by the American Library Association (ALA).

The department offers three degree programs—the ALA-accredited Master of Library and Information Science, offered both on campus and through the Web-based FastTrack MLIS Program; the Certificate of Advanced Study (CAS); and the Doctor of Philosophy (PhD) in library and information science.

The MLIS degree program provides graduates with a foundation of professional knowledge and skills as well as opportunities for specialized study in a variety of areas, including:

- Archives and Records Management
- Preservation Management
- Medical Librarianship and Informatics
- Digital Libraries and Information Management (DLIM)
- Services to Children and Youth
- School Library Certification Program

The CAS and PhD programs prepare graduates for careers in research, teaching, and administration.

For a detailed description of the specializations above, please visit us online at [www.sis.pitt.edu/~dlis](http://www.sis.pitt.edu/~dlis) and click on “Specializations” in the menu bar.

“Our faculty members care about our students and help them develop their talents. We care about achieving our mission—helping people use information to make lives better.”

**Margaret Kimmel**  
Professor, Library and Information Science

“I'm very proud that I went to the No. 1 ranked school for medical librarianship, earned my degree in one year, and got a great job a few months after I graduated.”

**Nancy Tannery, MLS 1995**  
Assistant Director for Information Services, Health Sciences Library System, University of Pittsburgh



## Information Science and Telecommunications

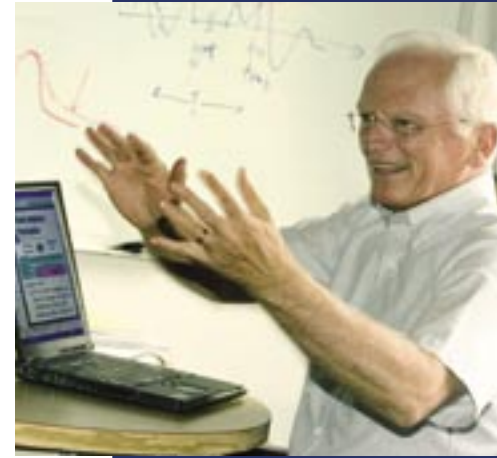
The Department of Information Science and Telecommunications has a unique national and international reputation for educating students to have a deep understanding of technology and how it can be applied to improve the lives of people, organizations, and society.

In a world in which technology is deeply rooted and constantly changing, Pitt was one of the first universities to offer an information science program in the early 1960s. The telecommunications program, established in 1986 as the field emerged as its own discipline, was an industry pioneer and continues to serve as a model program. As one of the nation's top-25 public research institutions, Pitt is uniquely positioned—because of its distinguished faculty and their world-class research—to offer a dynamic learning environment where opportunity abounds.

SIS offers an undergraduate program leading to the Bachelor of Science in Information Science (BSIS) degree and graduate study leading to the master's and PhD degrees in both information science and telecommunications. Certificate of Advanced Study programs offer further professional specialization.

- The Master of Science in Information Science (MSIS) program is designed to prepare students to assume professional responsibilities as systems analysts and designers, database developers and managers, software engineers, interactive systems designers, expert systems designers, artificial intelligence specialists, information security experts, information retrieval specialists, and many other information-based specialists.
- The Master of Science in Telecommunications (MST) program collaborates with the Departments of Computer Science, Electrical Engineering, and Communication and the Joseph M. Katz Graduate School of Business. Students may either select an area of specialization or become generalists. Areas of specialization include wireless communications, systems and technology, computer networking, network administration, network security, and policy and applications.

Please visit our Web site: [www.sis.pitt.edu/~dist](http://www.sis.pitt.edu/~dist)



### A Focus on the 'Why?'

"While some programs center their attention on how things work, Pitt's program focuses on why things work as well as how things work.

"It has been said that if you know how, you'll always have a job. But if you know why, you'll always be the boss. We look at what industry wants and respond to its needs. Our people understand the big picture and have the skills to be productive immediately.

"This practical focus on answering the 'why' questions in real-world situations separates Pitt from other schools. We get students who turn down full scholarship offers elsewhere and choose to pay to come here. It's kind of neat that they respond to our program that way."

#### Richard Thompson

Professor and Director,  
Telecommunications  
Program



## Charting the Future

The School of Information Sciences—with the help of a \$50,000 grant from the AT&T Foundation—launched Information School for the 21st Century, a study designed to evaluate how emergent information, technology, and societal factors will shape information schools for the foreseeable future.

As the world becomes increasingly networked, information schools will be called upon to educate professionals to manage digital information for a broad range of uses. Pitt faculty and students have emerged as leaders in their fields because of the school's innovative approach to education.

According to Dean Larsen, the grant helps ensure that future graduates will continue to be among the very best in the nation as leaders in the information-driven economy.

"We're fortunate that AT&T shares our sense of enthusiasm for this study and has expressed its confidence that Pitt's School of Information Sciences can provide the leadership for this project and vision for the future," said Larsen.

## Leaders Choose Pitt



José-Marie Griffiths has established an international reputation as an information scientist, researcher, and teacher.

With an impressive résumé that features teaching and administrative appointments at several British and U.S. universities, numerous honors and awards from

distinguished organizations, and appointments to presidential commissions by leaders of both parties, she could work just about anywhere in the world.

Griffiths chose to come to the University of Pittsburgh in 2001 as the first Doreen E. Boyce Chair in Library and Information Science.

"The University of Pittsburgh is on an upward trajectory," said Griffiths. "Not just one part of the University, but throughout many areas, including information sciences. As a leading research institution, we are able to attract the best people, and the environment facilitates becoming even better."

## Great Faculty, Great Students

"The range of disciplines that exists here among the SIS faculty is extraordinary. This school has a tradition of attracting great faculty and educating new faculty to join other institutions and become leaders in the information professions.

"Great faculty will attract great students, and the level of the educational experience is better for everybody. It's inspirational because people here have a level of intellectual excitement that is unique. There are wonderful people with great minds who want to make a difference."

She added that the collaboration among faculty and students at Pitt, Carnegie Mellon University, and other local colleges and universities is beneficial to everybody because it stimulates new research, ideas, and partnerships.

"It's very exciting to have this collective pool of great talent all brought together in Pittsburgh. The fact that we coexist makes us all better than we could be if we weren't here. Pittsburgh also has strong organizations working to build the high-tech sector and to support biotechnology. There are several hardware and software companies headquartered here, and this sci-tech component will be built upon in the coming years."

## People, Information, and Technology

Griffiths said the key to a successful career in the information sciences is being able to blend people, information, and technology into one triumvirate.

"We strive to attract students who are interested in working with people—that comes first. We want students who want to help people improve what they do, who are creative thinkers, good communicators, not afraid of technology, and generally want to help others navigate through the maze of complex information.

"If you can do that, you can find a rewarding career, not in one sector, not in one vertical business, but everywhere from corporate to nonprofit, preschool to aging, many facets of the medical profession, research and development, education, intelligence, and the law. With the right foundation, the possibilities are limitless. That's why I chose to come here."



## Spotlight on VISC— A Hub of Activity

When you enter the room, you can feel the energy; there's a buzz of excitement in the air.

In one corner three students hover around a projector that operates a virtual reality gaming device. The students laugh while creating an image of the Cathedral of Learning surrounded by palm trees on the display screen.

At the opposite end of the room, two women develop a geographic information system (GIS) that will be used by the City of Pittsburgh to manage its 50,000 trees. They too seem to be enjoying their work.

A small group of students work closely with an instructor who has just shared a nugget of information that may have totally changed the complexion of their project. The students appear to have mastered a new concept and are eager to apply the knowledge.

### A Room Full of Opportunity

The Visual Information Systems Center (VISC) is a hub of activity, a place where students gain hands-on experience working on industry projects in one of the hottest new areas of the information sciences—visual information systems.

According to VISC Director Ken Sochats, the center operates much like a small corporation, actively pursuing research funding for visual information systems endeavors. Contributions from Eli Lilly & Co. and other corporations make this practical experience possible for students; faculty research projects and partnerships with industry make things come to life.

“We have a reputation in industry; companies know we can get things done,” said Sochats. “We recently had a student who worked on a mapping project for the FBI, and he was offered a job because of his work here.”



### Virtual Reality

One of VISC's many projects is developing software to be applied in a full-sized three-dimensional virtual reality environment.

By using this application, emergency rescue teams can virtually explore and practice navigating through public buildings prior to arriving on the scene. First responders can simulate interaction in the building, increasing efficiency while reducing safety hazards.

Sochats also serves as the codirector of Pitt's Center for National Preparedness, a "Center of Centers" initiative to bring together experts in medicine, technology, public policy, and law. By leveraging the depth of expertise found across the University and coordinating statewide and nationally with other institutions, government entities, and corporations, Pitt is able to better partner with the Department of Homeland Security to make America more secure.

“The Center for National Preparedness is another opportunity for students to gain substantial experience and make an impact on a significant project,” said Sochats. “People rely on VISC to provide solutions. We have a culture here that really prepares students to excel.”

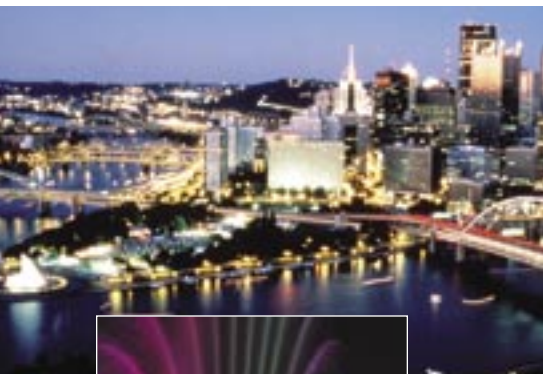
For more information on the exciting projects at VISC, go to <http://visc.sis.pitt.edu>.

“VISC is a room full of opportunity. One of our main purposes is to provide quality opportunities for students that can't be developed in the classroom. The theory is important, but at the end of the day, you have to have something to show for your efforts. We provide students with the chance to build a portfolio of work to demonstrate their skills to employers.”

**Ken Sochats**  
*VISC Director*

## Pittsburgh, a City on the Move

Pittsburgh is a city on the move—economically, culturally, and environmentally. Known as one of the nation's safest, most livable, and most affordable cities, Pittsburgh is a wonderful place to live, work, and learn.



Top: Pittsburgh's night skyline.  
Courtesy Jeff Greenburg  
Bottom: Fountain at Station Square.  
Copyright, Adam Green, 2003

Tucked among Western Pennsylvania's rolling hills at the confluence of three major rivers, Pittsburgh's natural beauty complements its many other positive attributes. Pittsburgh has been cited as one of the best cities for business by *Fortune* magazine, one of the safest U.S. cities (over one million population) by Century 21, and one of the healthiest places to live by *Health* magazine.

The University of Pittsburgh's spacious campus in Oakland spreads out beneath the Cathedral of Learning, the 42-story landmark that is the tallest education building in the Western Hemisphere. Oakland is the city's educational and healthcare hub; it is home to the area's major hospitals, universities, and museums. Only three miles from downtown, Oakland is also close to many quiet, attractive, and safe neighborhoods that are popular living destinations for faculty, staff, and students and just a quick walk or bus ride from campus.

### For Business

Companies ranging from high-tech startups to Fortune 500 firms consider Pittsburgh an excellent place to do business. The city is home to the corporate headquarters of giants such as the H.J. Heinz Co., ALCOA Corp., U.S. Steel Corp., and PPG Industries. In addition, Allegheny County as a region continues to gain top ratings as a fertile area for business. Pittsburgh has been ranked the fifth best region for research and development by the *American Business Climate Survey*, the ninth best region for small business by *Entrepreneur* magazine, and the ninth best region for living and working by *Fortune* magazine. In particular, Pittsburgh is emerging as a growth area for environmental, biomedical, high-tech, call center, and manufacturing firms.

### For Pleasure

Many people think of Pittsburgh as a hard-core sports town. In some ways, they are correct. With three well-known professional sports teams—the Steelers, Pirates, and Penguins—and the nationally competitive Pitt Panthers of the Big East Conference, Pittsburgh attracts thousands of sports fans annually.

Pittsburgh's entertainment scene, however, doesn't stop with sports. The city is renowned as a cultural destination. Home to the Pittsburgh Symphony Orchestra; the Carnegie Museums of Pittsburgh; the Pittsburgh Zoo and PPG Aquarium; theater, dance, and opera companies, the area has something for everyone.

Those looking for adventure outside the city will find it less than an hour away in many state parks and areas like the scenic Laurel Highlands. There are multiple opportunities for hiking, biking, skiing, hunting, fishing, white-water rafting, camping, kayaking, and much more.

Visit [www.pitt.edu/pittsburgh](http://www.pitt.edu/pittsburgh) for more information.



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### How to Apply

For graduate study, apply online at [www.sis.pitt.edu](http://www.sis.pitt.edu).

For undergraduate study, information is available on the SIS Web site, [www.sis.pitt.edu/~dist](http://www.sis.pitt.edu/~dist).



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