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Introduction

Required Information

1. Unit and Chief Administrative Officer

School of Information Sciences (SIS) —also referred to as the iSchool at Pitt
Ronald L. Larsen, Dean and Professor

2. Parent Institution, Chief Executive, and Chief Academic Officer

University of Pittsburgh
Mark A. Nordenberg, Chancellor and Chief Executive Officer
Patricia E. Beeson, Senior Vice Chancellor and Provost
[Dean Ronald L. Larsen reports to the Provost]

3. Accrediting Agency for the Parent Institution

Middle States Commission on Higher Education. The University was reaccredited by this agency in 2012.

4. Name and brief description of programs for Which Accreditation is sought

The Master of Science in Library and Information Science Degree (MLIS)

The MLIS degree is a 36-credit program that can be completed in three consecutive terms of full-time study or up to four years (twelve terms) of part-time study. The MLIS program is responsive to the information marketplace and encourages the development of creativity, professionalism, and a proactive attitude to the needs of various clienteles in library and information service environments. It currently offers seven specializations, in addition to the option for an individualized program of study.

Currently, the MLIS program and its specializations are offered on the University of Pittsburgh campus; an online program of study, based on the individualized option, is also offered through the University of Pittsburgh's award-winning Pitt Online collaborative learning environment. Although students are enrolled in either the on-campus or online MLIS program, graduates are awarded the same MLIS degree. In addition, on-campus students may choose to take one or more courses online (which can help them to manage the demands of part-time work alongside their studies). Online students similarly have the option to take courses on-site, as well as participating in on-campus events, including two weekend programs of professional development and course-related activities each year.

The additional academic programs hosted by the iSchool are listed in the section below and described more fully in the ***SCH 1*** Appendix.

Background

For more than 100 years, the School of Information Sciences at the University of Pittsburgh has been educating leaders in the Information Professions. The institution was founded as the Training School for Children's Librarians at the Carnegie Library of Pittsburgh in 1901: it has evolved to meet the growing demands of society in terms of information and the modes by which such information is produced, retrieved and utilized. In 1961, the School became a part of the University of Pittsburgh and over the next decade expanded its curricular offerings to include a doctoral program, specializations in school librarianship and archives, and a Master's degree program in Information Science. From the 1980s onward, a degree program in Telecommunications was created and signature research programs have been introduced. In 1996, the name of the School was changed from the *School of Library and Information Sciences* to the *School of Information Sciences*, to better represent the entirety and holistic evolution of the academic programs. The history of the School is a reflection of the history of the Information Professions – growing and changing in response to societal needs and the incorporation of new technologies. The School's history was celebrated in a centenary publication, *Tradition in Transition: A History of the School of Information Sciences, University of Pittsburgh, 100th Anniversary, 1901-2001*.

Today, the School offers the following degree programs:

- Bachelor of Science in Information Science (BSIS)
  Concentrations in User-Centered Design, Information Systems, and Networks and Security
- Master of Science in Information Science & Technology (MSIS)
  Specializations in Geoinformatics, Database and Web Services, "Big Data Analytics," Information Security, Human-Centered Computing, Telecommunications and Distributed Systems
- Master of Science in Library & Information Science (MLIS)
  Specializations in Archives, Preservation and Records Management (will change in Fall 2013 to Archives and Information Science); Digital Libraries; Information Technology; Resources and Services: Health; Resources and Services: Reference; Resources and Services: Children and Youth; and School Library Certification
- MLIS: Pitt *Online,* Master of Science in Library & Information Science through Pitt *Online*
- Master of Science in Telecommunications and Networking (MST)
- PhD in Information Science
- PhD in Information Science with a concentration in Telecommunications
- PhD in Library & Information Science.

The field of Information Sciences encompasses many disciplines and areas of expertise that address the types and management of available information, the needs of people to find and use this information, and the technology to meet those needs. It is a set of professions and academic areas that explores the possibilities and challenges surrounding a key resource – information. Each day, information is created, sought, and utilized by individuals, corporations, governments, and societies. The world needs experts to help find, organize and store, validate, and systematize forms of information that range from books and pictures to Web sites and databases. Now, perhaps more than ever, trained and creative

professionals are needed to understand users and uses of information in order to design and build real-world and virtual systems and services that will foster the potential – as well as to master the volume -- of data being produced every day.

The University of Pittsburgh: A Major Research Institution

The University of Pittsburgh, founded in 1787, is one of the oldest institutions of higher education in the United States. Pitt is a top-tier research institution with more than 200 graduate degree programs. An AAU member institution, Pitt ranks third among public institutions of higher education and fifth among all universities, public and private, in its federally-financed research and development (R&D) expenditures, according to the latest figures issued by the National Science Foundation (NSF). The University was noted as the nation's 8th best value for out-of-state students in The Kiplinger 100: Best Values in Public Colleges; and is home to quality faculty who have been honored by membership in the National Academy of Sciences, the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the American Educational Research Association. According to the Carnegie Classification system, the University of Pittsburgh is RU/VH (Research Universities, very high research activity).

iSchool Governance

In 2005, the School's administration and faculty began to draft a new management model, one which would allow for better representation of the School's constituencies (faculty, staff, and students) and for more timely decision-making. The ultimate design called for the creation of the SIS Council, whose mandate is: "the expression of member views and the exercise of traditional academic responsibilities concerning the maintenance of appropriate academic standards in instruction, the development of educational programs and degree requirements, and the recommendation of policies in such areas as resource allocation, faculty and staff development, student affairs, research and service programs, and the School of Information Sciences' relations with local, regional, national, and international communities" (see http://www.sis.pitt.edu/~scouncil/index.html). In 2006, the SIS Council was formally created and implemented.

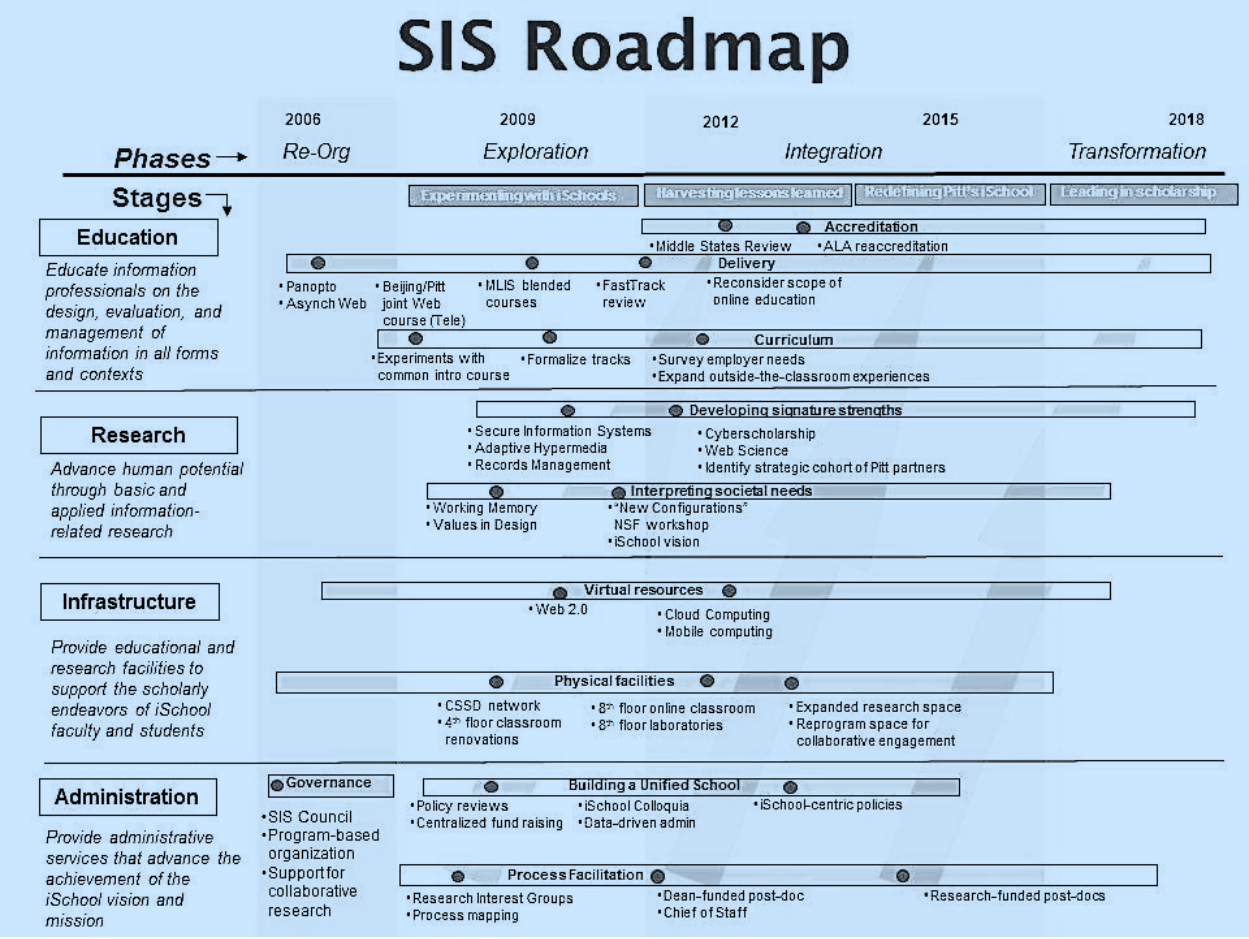
The anticipated effect of this governance change was to create a focus that was more School-centric, rather than the distinctly department-centric entity it had become over the last decade. It was also expected that streamlined, representative governance would result in an organization that would be more institutionally-agile, more representative of the disciplinary convergences occurring within the Information Professions, and more conducive to emerging directions in collaborative research. The extent to which these goals are being achieved is continuously evaluated by the School administration, faculty and staff.

In 2006, the School reconstituted and convened the Board of Visitors (BOV) to evaluate our programmatic, research and administrative efforts. The BOV has met each of the last five years and their input has been invaluable and, in many cases, implemented.

The School created an Industry Advisory Council in 2004. This is a group of high-level industry professionals with an interest and expertise in those areas covered by the BSIS, GIST, and TELE

programs. This group acts as a sounding board for curricular improvements, learning enhancements, and efforts on the part of the School to improve outreach to the professional communities.

With the completion of more than six years under the new management model, the School's Board of Visitors recommended that the School should embark on an effort to create and refine a vision statement for the unit. The School began this effort by holding special sessions of SIS Council and the School faculty meeting, by appointing an ad-hoc committee to lead the effort, and by hosting a blog for faculty and staff to contribute ideas to the visioning process. This effort will culminate in the convening of a series of external review panels, who will provide guidance to the School's faculty and administration to better support outstanding degree programs, foster the growth and research productivity of faculty, and contribute to the University's efforts to meet its own goals. Much of that assessment and reflection work has contributed to this Program Presentation.



This chart represents the foci of the iSchool in addressing several key areas, including reorganization, exploring new fields and teaching methodologies, integration and collaboration between research and teaching, and transformation of the School and the field. This represents not only the accomplishments of the recent past, but also the intended objectives and tasks in moving ahead.

Preparation of this Report

This program presentation has been developed by a faculty/staff subcommittee (The iSchool COA Subcommittee) of the SIS Council with the input and support of the iSchool's administration and the faculty of the Library and Information Science Program. The COA Subcommittee has been tasked with addressing each of the COA Standards, gathering evidence to support the School's efforts to meet the Standards, and analyzing the School's success at doing so.

This report has been developed while the iSchool is facing a period of great challenges. In the last three years, three faculty members have passed away, two have taken positions at other universities, and one has been on an extended personal leave. The LIS program is benefitting greatly from three outstanding faculty hires in 2012. Sheila Corrall holds the position of Professor with expertise in academic libraries, strategic management, and organization and professional development. She also serves as the Chair of the Library and Information Science Program. She brings experience from leading the Information School at the University of Sheffield to become the first iSchool in the UK. Brian Beaton is an Assistant Professor who has research expertise in Science & Technology Studies and who will teach primarily in the Archives area. Stephen Griffin joined the faculty as a Visiting Professor and the Mellon Cyberscholar, charged with expanding the School's expertise in this critical area. Under Sheila Corrall's leadership, the MLIS program will be strategically enhanced to better address challenges in the field, to better prepare students for careers in an ever-changing digital landscape, and to position the iSchool for growth.

The Process

In March 2012, the Dean formed a Subcommittee of the School of Information Sciences Council to provide oversight for the development of the Program Presentation for the COA site visit and all efforts associated with the School's continued accreditation by the American Library Association. The members of the COA Subcommittee are as follows:

Chairs:

Martin B. H. Weiss, Associate Professor and Associate Dean (until August 2012)

Sheila Corrall, Professor and Chair of the Library and Information Science Program (from August 2012 on)

Members:

Leanne Bowler, Assistant Professor and Lead Faculty for the Specialization in Resources & Services: Children & Youth

Richard Cox, Professor and Lead Faculty for the Specialization in Archives, Preservation, and Records Management

Brian Cumer, PhD Candidate

James “Kip” Currier, Assistant Professor and MLIS Alumnus

Debbie Day, iSchool Program Administrator and MLIS Alumna

Ellen Detlefsen, Associate Professor and Lead Faculty for the Specialization in Resources & Services: Health

Daqing He, Associate Professor, Lead Faculty for the Specializations in Digital Libraries and Information Technology, and Chair of SIS Council

Eleanor Mattern, PhD Student

Kelly I. Shaffer, Director of External Relations

The COA Subcommittee has met on a weekly basis to prepare materials and evidences for this COA Program Presentation. The LIS faculty held a retreat on September 19, 2012 to initiate the drafting of the program presentation. The Subcommittee then presented progress reports to the LIS faculty as a whole at the monthly faculty meetings. Specific meeting time was set aside for in-depth consideration of discrete standards to ensure that all LIS program faculty had the opportunity to review and comment on the entire program presentation.

At the September, October and November meetings of the SIS Council, time was devoted to discussions and review of materials prepared for this presentation. This permitted the COA Subcommittee to gather the input of faculty, staff and students from across the School on a regular basis and to incorporate their feedback into the preliminary version. A final version of the Program Presentation was made available to the SIS Council for comment and consideration. The COA Subcommittee had planned to present an earlier draft of this presentation to the Board of Visitors during their annual meeting scheduled for October 31-November 1, 2012. Unfortunately, Hurricane Sandy caused the School to postpone the meetings until April 2013.

The initial draft of this Program Presentation was also informed by feedback gathered from meeting with alumni at the Pennsylvania Library Association’s Annual Conference held in October 2012 in Gettysburg, PA. The LIS Program Chair and the Director of Constituent Relations hosted an alumni reception on the evening of the grand opening of the conference, with more than 20 alumni in attendance. These graduates of the program, representing both recent graduates and those with 20+ years of professional experience, were asked for issues and challenges to address in the proposed comprehensive curriculum review and the COA Program Review. In addition, the Program Chair and the Director of External Relations staffed a booth in the exhibit hall for the duration of the conference, chatting informally with more than 65 alumni of the MLIS Program. See appendix ALU 1 for more information. Ongoing interactions with alumni through alumni events, guest lectures and other meetings have continued to inform successive drafts of this Program Presentation.

Input to this report was gathered from the School's top administrators including the Dean, the Associate Dean for Academic Affairs, and the Director of Administration. In addition, a final version was sent for review by Patricia E. Beeson (Provost), Juan Manfredi (Vice Provost for Undergraduate Studies and iSchool liason to the Provost) and to Alberta Sbragia (Vice Provost for Graduate Studies).

Organization of this Report

The program presentation is offered in the order in which the COA Standards are presented. Each Chapter represents one of the Standards, fully discussing each sub-Standard. The Chapters are as follows:

Chapter 1 – Mission and Goals
Chapter 2 – Curriculum
Chapter 3 – Faculty
Chapter 4 – Students
Chapter 5 – Finance and Administration
Chapter 6 – Facilities and Resources

At the end of this report, appendices which include several subsections dealing with evidence and documentation in the following categories

University – denoted by the prefix UNI
School – denoted by the prefix SCH
Financial & Administrative – denoted by the prefix FIN
Program – denoted by the prefix PRO
Faculty – denoted by the prefix FAC
Curriculum & Courses – denoted by the prefix CUR
Students – denoted by the prefix STU
Alumni – denoted by the prefix ALU

Each item within the individual categories will then have a discrete number, referred to in the narrative, for ease in finding.

Changes since Last Review

The last Review by the Committee on Accreditation took place in 2006. At that time, the School was just embarking on several key initiatives including reorganizing to be more School-centric, focusing on learning outcomes and a culture of assessment, and fostering the iSchool movement. At this point, the School is continuing to monitor the effectiveness of the governance transition; enhancing degree and research programs to meet the needs of students, the professions and society; and identifying areas of

inquiry and education that will define not only the School, but also the Information Professions in the future.

The LIS Program has faced great change during this period, much of it unplanned and unwanted. Due to the deaths of several key faculty members, as well as the unexpected departures of others, the program has had to overcome a great many challenges. However, the Fall of 2012 brought three new faculty on-board and the initiation of a recruitment effort for four additional faculty (including one non-tenure stream position in the archives area). Once completed, this will restore the LIS Program to nearly its full complement of teaching and research faculty (the one exception being the Doreen E. Boyce Chair in Library and Information Science, for which recruitment is to commence in Fall 2013).

In spite of dramatic personnel turnover, the MLIS program has embarked upon or completed a number of significant endeavors during this period. These are described in greater detail throughout this Program Presentation, but several are highlighted below:

Comprehensive Curriculum Review

In December 2012, the LIS faculty commenced on a comprehensive review of the MLIS curriculum to consider the effectiveness of the core courses, the breadth of the electives, and the value of the out-of-the-classroom activities. The faculty will have completed a review of the core courses (LIS 2000, LIS 2005, LIS 2600, and LIS 2700) and considered issues arising from the first stage of the review by April 2013. We expect to have a set of initial recommendations related to core components of the curriculum by the end of the Spring term, which will be refined and consolidated in the next stage of the review, commencing Fall 2013. The second stage will focus on the program's specializations and electives, including additions and changes to our portfolio of courses related to new faculty appointments. The preliminary outcomes of this process are included in appendix CUR 8.

Expansion and Updating of Specialization Options

In addition to the Individualized course of study, the Program offers specializations in seven key areas:

- Archives, Preservation, and Records Management (existing, with extensive revisions to be implemented for Fall 2013, reflected in the change of name to Archives & Information Science)
- Digital Libraries (first offered in 2006)
- Information Technologies (first offered in 2009)
- Resources and Services: Health (existing, but extensively revised)
- Resources and Services: Reference (first offered in 2009, with further development in 2012)
- Resources and Services: Children and Youth (existing, but extensively revised)
- School Library Certification Program (existing).

Transition of Online MLIS Program to new platform

As explained in more detail in appendix PRO 5, the School determined to shift the online MLIS program to a university-sponsored platform, Pitt Online. This decision was spurred by the Dean's decision to

recruit an external consultant to review the online program in light of decreasing faculty resources, increasing costs of instructional and distance technology, and dissatisfaction on the part of faculty and students with the "blended" modality of the former program. In Summer 2012, the School began the production of MLIS core courses within the Pitt Online framework. See PRO 5 for the Transition Plan.

Implementation and Enhancement of the Partners Program (2006) and Field Experience Options (2010)

The LIS program now offers a suite of opportunities to allow students to gain invaluable practical experience, to enhance their job search success, and to apply classroom learning in real-world situations. New field experience electives reflecting the current MLIS specializations have been created.

Revision of Core Courses (2009)

The LIS Program Faculty determined to replace two core courses (LIS 2001 Organizing Information and LIS 2002 Retrieving Information) with one, LIS 2005 Organizing and Retrieving Information.

Diversity Initiatives

Several program faculty have been selected for, and completed, the Annual Faculty Diversity Seminar, sponsored by University of Pittsburgh's Office of the Provost. These competitively selected fellowships permit faculty to redesign their courses to be more inclusive with regard to race and gender. The LIS 2700 Managing Libraries & Information Systems & Services course and LIS 2670 Digital Libraries are the first of these diversity-infused courses to be offered. The outcomes of participation in the Diversity Seminar are provided in appendix CUR 9.

In addition, the School is home to the iSchool Inclusion Institute (i3), a ground-breaking initiative funded by the Andrew W. Mellon Foundation to increase the diversity of the student body and faculty of the iSchools. See www.ischoolinclusioninstitute.org or appendix SCH 12 for more information about this program.

Creation of Research and Educational Offerings in Cyberscholarship

Another significant grant from the Andrew W. Mellon Foundation enabled the School to create a graduate research program designed to understand and influence the emergence of digital communication and research in academia, known as cyberscholarship. A new doctoral seminar on Digital Scholarship was cross-listed between degree programs at the School and MLIS students were permitted to take it as an elective course.

Area of Special Emphasis

Transformational Change

As part of this presentation, the School of Information Sciences proposed to focus on *transformational change* to highlight how the School and its LIS curriculum are responding to the profound changes taking place in the profession.

One area of change has been the composition, the research areas of interest, and the teaching capabilities of the LIS faculty. In the period of 2006-2012, there has been significant turnover in the faculty due to retirements, illness and unexpected deaths, and resignations. During the period covered by this program presentation, the School has hired five new faculty members (including a new Program Chair for the LIS program) and a number of visiting faculty who have had a great impact on the program. Some of these appointments are quite unique for the School including the Mellon-funded Cyberscholar position currently held by Stephen Griffin, and Alison Langmead who was hired as a joint faculty appointment between the iSchool and the Dietrich School of Arts and Sciences in 2009. She serves both as the Director of the Visual Media Workshop in the Department of the History of Art and Architecture and a Lecturer in the LIS Program, focusing her teaching work in the archives and information management area. For Fall 2013, the School is currently seeking to hire four more faculty including both junior and senior positions, one of which will hold primary teaching responsibilities in the LIS program. The new faculty member will add greatly to the evaluation and revision of the core curriculum to address contemporary needs of the professions.

Great changes have taken place in the Information Professions, particularly over the last decade. These changes have occurred, and are still transpiring, due to several factors including the evolving expectations of users, advances in technology, and a very uncertain economic climate. The School has sought the advice and expertise of alumni and practitioners regarding desired skills and knowledge in new graduates, new learning methodologies, and job opportunities in addition to those in libraries and archival facilities. With the addition of such input, the School will ensure that the MLIS curriculum is current in light of holistic changes in the library and archival professions.

The constant evolution of the Information Professions has impacted the curriculum of the MLIS program in several notable ways. For example, the growing amount of digitally-born records and information systems (as well as the increasing demand for enhanced access by researchers and the public to such records) and the digitization of analog records have generated more attention in the archival community to both digital curation and digital preservation. The School's archival specialization is responding to this with revisions to its curriculum by both adding new courses and revising others.

The Children's and Youth Specialization has responded to the changing landscape of Children's and Youth Librarianship in the 21st century by providing a structured program that integrates both new media and traditional children's literature into a cohesive curriculum.

In a decade of enormous change in health care, and at a time when the medical health information professional will be a team player in the evolving integrated health information environments, the Health specialization in the MLIS program provides exposure to knowledge-based resources and professional information services. The curriculum emphasizes the different information practices of

health professionals who use knowledge-based information, as well as the traditional and electronic means by which health information is organized, stored, and retrieved. It also addresses the needs of and resources available to health care consumers, patients and families.

As the first opportunity for students to encounter the impacts of massive and networked digital content with their underlying global information infrastructure, the Information Technology and Digital Libraries specializations emphasize the transformative nature of information technology and digital content. Students are introduced to the profound effect of an overwhelming amount of data and sophisticated network systems on the library and archival fields, the professions, and the practitioners whose careers will involve continuous learning and training with these tools. The goal of these two specializations is to provide foundational knowledge and training to 21st century information professionals, permitting them to gain information technology skills and digital content manipulation experiences.

Contemporary research and scholarship is increasingly characterized by the use of large-scale datasets and computationally intensive tasks. Vast amounts of data are used to map the cosmos, build earth system models, examine structures of living organisms, and gain insights into the behaviors of societies and individuals in a complex world. Similarly, humanists are integrating newly digitized corpora, digital representation of cultural artifacts, spatial and temporal indexed data into their scholarly endeavors. *The Denton Declaration: An Open Data Manifesto* positions librarians and archivists at the center of the data management enterprise, while concepts of blended and embedded information professionals are leading to highly-specialized roles requiring deeper engagement in user workflows.

The School is responding to these developments in creative ways: already, the Mellon Cyberscholar has introduced a new course charting the development of digital scholarship, and a lecturer holding a joint appointment with the School of Arts & Sciences is enabling leading-edge expertise in visual media to be brought into the MLIS program. The present experiment (introduced in Fall 2012) of an embedded librarianship initiative within the MLIS is giving students direct exposure to emerging models of practice, while the current curriculum review is exploring the wider implications of a data-infused curriculum. Recent faculty appointments are resulting in new MLIS courses in citizen science and research methods during 2012-13, with curricular innovations in academic libraries and information history planned for 2013-14, as well as further enhancements arising from additional faculty appointments anticipated.

Students called for more opportunities to gain practical experience; this need was also indicated by employers who were looking for new staff with work experience in addition to the ALA-accredited degree. The School created the Partners Program and a series of specialized Field Experience courses to offer that invaluable experience to students.

In 2012, the School began the process to transition its online MLIS program to the University-hosted platform, Pitt Online. The School previously developed one of the pioneering online programs utilizing in-house systems to support distance education. Now that the University has developed a comprehensive online learning system, the online MLIS program is being offered through Pitt Online. This will result in efficiencies in offering courses, improved user experiences, and the ability to more effectively incorporate collaborative tools into the learning experience.

Perhaps the most significant transformational change is the creation and growth of the consortium of Information Schools – the iSchools. The School of Information Sciences was a founding member of this group and continues to play a significant role in the iSchool Caucus and the iConference. The iSchools view the Information Sciences as a discipline that attracts scholars and students from a broad range of disciplines to work together in understanding the nature and use of information. Being an iSchool not only recognizes and honors the separate fields that comprise the discipline, but also calls for melding these differing perspectives into a new whole. The iSchool at Pitt is evolving from a long history of excellence in more narrow disciplinary endeavors that touch all aspects of librarianship (including, but not limited to, children's and youth services; academic, medical, and corporate librarianship; archives and records management); information systems design and analysis; information retrieval; telecommunications and networking; and cognitive science. Building bridges among academic programs of such diversity remains a challenge, but one that is being accomplished in order to thrive and grow as an iSchool, an academic and research unit that reflects the multi-faceted nature of information, technology and people.

Standard I. Mission, Goals, and Objectives

I.1 A school's mission and program goals are pursued, and its program objectives achieved, through implementation of an ongoing, broad-based, systematic planning process that involves the constituency that a program seeks to serve. Consistent with the values of the parent institution and the culture and mission of the school, program goals and objectives foster quality education.

The School of Information Sciences at the University of Pittsburgh has created a culture of planning and assessment, not in response to demands from University administrators or external agencies, but in response to an intrinsic desire to ensure programmatic and curricular excellence. The iSchool administration and faculty are dedicated to the consistent evaluation of the School's mission and objectives to ensure that the unit is meeting its obligations to the students, the University, and to the professions. Each degree program is also responsible for the careful consideration and review of program goals, curriculum, and learning objectives to ensure that they accurately reflect the goals of the University and School, as well as appropriate professional standards.

University of Pittsburgh Mission Statement

The University of Pittsburgh, founded in 1787, is one of the oldest institutions of higher education in the United States. As one of the nation's distinguished comprehensive universities, the resources of the University constitute an invaluable asset for the intellectual, economic, and social enrichment of Pennsylvania, while the international prestige of the University enhances the image of Pennsylvania throughout the world.

The University's mission is to:

- provide high-quality undergraduate programs in the arts and sciences and professional fields, with emphasis upon those of special benefit to the citizens of Pennsylvania;
- offer superior graduate programs in the arts and sciences and the professions that respond to the needs of Pennsylvania, as well as to the broader needs of the nation and the world;
- engage in research, artistic, and scholarly activities that advance learning through the extension of the frontiers of knowledge and creative endeavor;
- cooperate with industrial and governmental institutions to transfer knowledge in science, technology, and health care;
- offer continuing education programs adapted to the personal enrichment, professional upgrading, and career advancement interests and needs of adult Pennsylvanians; and
- make available to local communities and public agencies the expertise of the University in ways that are consistent with the primary teaching and research functions and contribute to social, intellectual, and economic development in the Commonwealth, the nation, and the world.

The trustees, faculty, staff, students, and administration of the University are dedicated to accomplishing this mission, to which they pledge their individual and collective efforts, determined that the University shall continue to be counted among the prominent institutions of higher education throughout the world.

The iSchool's Mission and Goals:

The Mission of the School of Information Sciences is to support and advance the broader education, research, and service mission of the University by educating students, furthering knowledge, and contributing our expertise to advance humankind's progress through information. These are derived to guide the School's efforts to assist the University in meeting its goals, outlined in the section above, to provide high-quality undergraduate and graduate education, to engage in activities that enhance learning, and to contribute to our various communities.

Each academic year, the Dean, Associate Dean and Director of Administration meet with faculty and Program Chairs to solicit ideas for items to cover in the annual plan. The lists from faculty and Program Chair meetings are collated and presented to the SIS Council. These ideas are discussed in terms of the relevancy to the University's goals, the current state of affairs in the School, and long-term iSchool aspirations. Based on these discussions, the draft goals are worked into the University's matrix for planning and fleshed out by the administration with short-term objectives and proposed steps to achieve the goals. The final goals are considered and approved by the members of the SIS Council. The overarching goals, developed under the aegis of the SIS Council, for the academic years 2011-13 are to:

- Foster intellectual vitality for our community
- Build financial strength for the future
- Provide strategic leadership for our professions
- Interpret and articulate the information school vision and mission

As part of its annual planning process, the School creates a series of shorter-term objectives to move the unit towards meeting the long-term goals. These objectives might address administrative, personnel, research or curricular endeavors to be undertaken within the next academic or fiscal year.

The MLIS program has developed a series of goals that outline the expected learning outcomes for students. The goals were created prior to the 2006 COA study, and revised over time to reflect changes in the library and archival professions. They were most recently revised in 2011 and will be reviewed again in the context of the current comprehensive curriculum review. The MLIS goals are synergistic with the mission and goals of the University of Pittsburgh and the School of Information Sciences, mapping particularly to those goals regarding quality educational programs and endeavors. They were crafted to specifically address the stated Standards of the American Library Association, as these Standards define the expectations of employers and leaders of the library and Information Science fields.

The LIS Goals for MLIS graduates are:
Upon completion of the MLIS degree, graduates will incorporate the theories, knowledge, skills, ethical foundations and social responsibilities of the information professions into professional practice for the benefits of users. Specifically, graduates will be able to:

- Draw upon the ethics, values and history of library and information science and other related disciplines.
- Apply the principles of information management.
- Advance the creative and ethical applications of information technologies.
- Apply the principles of management to various functions in information environments.
- Plan, implement, evaluate and advocate information services to meet the needs of diverse users.
- Promote intellectual freedom and equity of access to information.
- Understand and apply research in library and information science.
- Promote a commitment to the advancement of the information professions through advocacy, continuing education and lifelong learning.

The MLIS program goals are explicitly framed in terms of preparing students to function in the complex environment of professions associated with the Library and Information Science discipline. The program immerses students in the foundational knowledge and practical applications of librarianship, information creation and management, and information services to meet the needs of users. The curriculum instills in students an awareness of the ethical use of information, introduces them to historical and contemporary issues in intellectual freedom and equitable access to information, and provides them with the ability to incorporate research into their learning and practice. Finally, the program aims to create productive, responsible and engaged information professionals, capable of managing and leading information services and organizations.

The goals of the University, the School and the MLIS program are focused on promoting student learning and success. The university's first two goals (set out in its mission statement) specifically describe the intent to offer quality education programs at both the undergraduate and graduate levels. In addition, the University encourages units to promote diversity throughout the University community, to offer online and certificate programs, and to expand the international perspectives of programs and students. Meeting these goals provides additional learning opportunities for students, create an inclusive environment in which to learn, and prepares students to function effectively in a truly global society.

The first of the iSchool's goals (foster intellectual vitality for our community) incorporates the enhancement of all academic, professional development, and disciplinary inquiry activities hosted by the School. The students benefit by having a rigorous and stimulating environment in which to learn and undertake research. The School seeks to enrich the academic programs to better prepare students to lead the Information Professions: in order to do so, the School ensures that curricula address much-needed skills, essential theoretical knowledge, and an appreciation for the modern societal environment made possible through advances in technology. The iSchool hosts a vigorous slate of colloquia that introduces students to leading-edge research in the many fields associated with the Information Sciences. In addition, students may participate in numerous professional development opportunities hosted and/or promoted by the School in order to prepare them for success in their various fields of endeavors, including participation in the Student Chapter of the American Library Association (SCALA) and attendance at ALA Conferences. Such events are listed in appendix SCH 9.

The School's regular efforts to evaluate the effectiveness of the degree programs are multi-directional processes. Elements assessed at the program level rise to the School's governing body, the SIS Council.

School-wide issues and challenges identified by the Council are considered and responses are crafted by program faculty. Through the SIS Council, all constituencies within the School have an opportunity to participate in planning and evaluation.

The SIS Council serves as the primary voice of the faculty, staff and students with regard to various governance functions within the school. The eleven voting members of the council:

- Act for and represent the faculty, staff, and students in making recommendations to the Dean on major issues of the School;
- Serve as the School's planning and budgeting committee for the University's Planning and Budgeting System;
- Develop and/or review policies, guidelines, and procedures that support or affect scholarship, research, teaching, and service;
- Develop and/or review policies, guidelines, and procedures in areas of governance, such as personnel, terms and conditions of employment, budget plans for the School, resources, and diversity enhancement;
- Establish committees as needed to develop and implement policies and procedures related to the above areas;
- Coordinate the activities of its various committees, receive the reports, and act upon the recommendations of those committees; and
- Consult with and advise the Dean and/or the representatives of the Dean regarding issues of concern to faculty, staff, and students.

All program chairs are *ex officio* members of the SIS Council. The monthly meetings of the Council are open to all faculty, staff and students who wish to attend.

As an autonomous unit within the University, the faculty and administration have the ability to perform ongoing assessment and to develop methods to address any issues arising from that assessment. This has led the iSchool to undertake numerous programs of assessment and evaluation on a regular basis: continuous assessment efforts are described more fully in Standard V.4: a subset pertinent to the preparation of this program presentation is provided below. (Examples and results are included in the various appendices.)

Internal/University

The iSchool Annual Plan (see SCH 13)

Each year, the School prepares an evaluation of progress to date on reaching the School's stated long-term goals and short-term objectives. This annual planning document, intended for the Provost's office, delineates successes, failures, and challenges in several key areas: providing high quality undergraduate and graduate programs, research, cooperating with public and private sector institutions, offering continuing education opportunities, contributing to the professions and communities, ensuring operational effectiveness and efficiency, and increasing the diversity of the faculty and student body. The intent of the process is to create a roadmap for the next fiscal year.

Board of Visitors (See SCH 3)

Each year, the School presents evaluations of its progress towards its annual goals and objectives to its Board of Visitors, a volunteer group of industry and academic experts in the fields covered by the School – Information Science & Technology, Library & Information Science, and Telecommunications & Networking. Generally, each meeting allows these experts to review the School's efforts in curriculum development, student recruitment, development, and operations. The Board of Visitors also offers recommendations on program enhancements, School growth, and administrative functions.

Faculty Meetings (See SCH 14)

The School hosts three all-school faculty meetings each academic year to facilitate information sharing across degree programs. At monthly program faculty meetings, discussions are dedicated to curriculum evaluation and revision. Within the MLIS program, faculty who teach within a specialization meet regularly with adjuncts and teaching fellows/assistants to assess the effectiveness of the course of study, pedagogical methods, and content of courses. Adjuncts and teaching fellows/assistants are also invited to attend the monthly meetings of LIS faculty

Learning Objectives Outcome Reporting (see CUR 7)

Annually, the Program Chairs undertake assessment of the program and efforts to meet learning objectives. The program faculty determine the learning objectives of the curriculum, which courses to assess, the criteria for success, and the effectiveness of the courses/curriculum in meeting the learning objectives. These evaluations are submitted to the Provost's Office in May of each year.

Student Enrollment Projections (SCH 15)

On an annual basis, the School is required to submit projections for student enrollments for the next fiscal year. The intent of this effort is to prepare an estimation of tuition revenue for the University. The School utilizes this effort as an opportunity to benchmark against the previous year's projections and actual enrollments, ensuring adequate resources devoted towards teaching and student learning.

Industry Advisory Council (See SCH 4)

Each quarter, a select group of industry representatives from the Information Technology and Telecommunications fields meet with administrators and faculty from the School. In general, their advice is sought regarding relevancy of curriculum in both undergraduate and graduate programs, internships and practical experience opportunities, and student recruitment.

Annual Faculty Reports (See FAC 5)

Every member of the faculty is required to submit an annual report which outlines their efforts and achievements over the year in teaching, curriculum development, research, and community service. The faculty also provide goals and objectives for the next year in teaching, research and service, identifying how they contribute to School objectives and what resources are needed to achieve their goals.

MLIS Student Advisory Group (See PRO 6)

Each month, the Chair of the MLIS Program, Program Administrator and a Student Services Specialist meet with representatives of the Student Organizations in the School to seek feedback on the quality of the student learning experience, discuss issues of concern, and identify areas for action. Other faculty and/or staff members may participate at specific meetings, depending on items identified for discussion. The faculty is considering how to encourage feedback from the online students, who do not generally belong to the student organizations.

Survey of Graduating Students (See SCH 16)
Until 2012, the School would seek input from graduating students via surveys on an as-needed basis. These surveys were often undertaken in order to garner student opinion about specific programmatic or curricular endeavors. The School has now created an online survey that will be sent to all graduating students just prior to the end of the term. The intent of this survey is to gather student opinions about school professional development activities, advising effectiveness, and the success of the curriculum in providing graduates with appropriate skills and knowledge.

Survey of Alumni (See ALU 1 and ALU 2)
On an as-needed basis, the School prepares and distributes a survey to all alumni. The most recent survey was hosted in 2010 as part of the University's Middle States Accreditation effort. In addition, the LIS Program Chair met with 65+ alumni at the Pennsylvania Library Association (October 2012) to discuss this presentation, curricular enhancements, and the need for additional coursework in certain areas.

Survey of Partner Organizations (See PRO 7)
The MLIS Program conducts surveys of organizations hosting students undertaking work placements or field experience to evaluate competency needs and employer satisfaction.

Survey of Current Students (See SCH 17)
The School creates a series of online surveys to evaluate student satisfaction with various educational and professional development efforts.

Analytical Tools
The School has created a series of analytic tools to evaluate financial performance, research productivity, and resource use throughout the fiscal year. For example, the Program Chairs and administrators receive frequent updates on enrollments, applications for admission, expenses and budget progress.

External

ALISE (Association for Library and Information Science Education) and American Library Association Annual Statistical Reports
These surveys are completed by all schools which offer degree programs in the LIS discipline. Conducted annually, these surveys request statistical data on budget and expenses, faculty, student enrollments and demographics, curriculum adjustments and additions, and provision of continuing education opportunities. They provide the School with an opportunity to benchmark against both members of the iSchools community and other Library and Information Science schools.

Taulbee Report
This is an annual survey of schools that offer degree programs in Computer Science and Information Science. This survey focuses on enrollments and graduation rates for both Master's and doctoral students in the iSchool's Information Science and Technology and Telecommunications Programs. This is included here to offer a complete picture of the School's efforts to create and utlize data effectively.

Special Studies

NCHEMS Study (See PRO 3)
In 2011, the School commissioned an external review of the online MLIS program by the National Center for Higher Education Management Systems (NCHEMS), seeking ways to ensure that the program continued to deliver high quality education that met the needs of libraries and their users into the foreseeable future. This review focused on the online MLIS program in terms of delivery systems, student satisfaction, and faculty satisfaction and allocation of resources.

The CAS in Health Sciences Librarianship External Evaluation (See PRO 4)
In 2012, the school retained an external evaluator to review the successes and challenges in offering the grant-funded CAS in Health Sciences Librarianship program.

I.2 Program objectives are stated in terms of student learning outcomes to be achieved and reflect

I.2.1 the essential character of the field of library and information studies; that is, recordable information and knowledge, and the services and technologies to facilitate their management and use, encompassing information and knowledge creation, communication, identification, selection, acquisition, organization and description, storage and retrieval, preservation, analysis, interpretation, evaluation, synthesis, dissemination, and management

I.2.2 the philosophy, principles, and ethics of the field

I.2.3 appropriate principles of specialization identified in applicable policy statements and documents of relevant professional organizations

I.2.4 the value of teaching and service to the advancement of the field

I.2.5 the importance of research to the advancement of the field's knowledge base

I.2.6 the importance of contributions of library and information studies to other fields of knowledge

I.2.7 the importance of contributions of other fields of knowledge to library and information studies

I.2.8 the role of library and information services in a diverse global society, including the role of serving the needs of underserved groups

I.2.9 the role of library and information services in a rapidly changing technological society

I.2.10 the needs of the constituencies that a program seeks to serve.

The goals of the MLIS program, last revised in 2011, are reviewed by the program faculty each academic year to ensure that they are continuing to reflect the needs of students, employers and the Information Professions. The 2009-11 Goals are located here and the goals in use from 2011 on are located here. These goals drive all curriculum development, curriculum revision, and advising of students. In Fall 2012, the program faculty reviewed the goals, as stated on the School's Web site and determined that, with the minor revisions enacted in 2011, the these goals are appropriate for preparing professional librarians, archivists, and information professionals. Regardless of delivery platform, each course and course of study aim to provide students with the skills and knowledge necessary to function efficiently and effectively. The goals are clearly correlated to the Standards as espoused by the American Library Association:

Goal	COA Standards
Incorporate the theories, knowledge, skills, ethical foundations and social responsibilities of the information professions into professional practice for the benefits of users [overarching goal]	I.2.1, I.2.2, I.2.3, I.2.4, I.2.5, I.2.5, I.2.6, I.2.7, I.2.8, I.2.9, I.2.10
Draw upon the ethics, values and history of library and information science and other related disciplines.	I.2.2, I.2.7, I.2.10
Apply the principles of information management.	I.2.1, I.2.9
Advance the creative and ethical applications of information technologies.	I.2.1, I.2.2, I.2.7, I.2.9
Apply the principles of management to various functions in information environments.	I.2.3, I.2.7, I.2.10
Plan, implement, evaluate and advocate information services to meet the needs of diverse users.	I.2.3, I.2.8, I.2.10
Promote intellectual freedom and equity of access to information.	I.2.2, I.2.8, I.2.10
Understand and apply research in library and information science	I.2.5, I.2.6, I.2.7
Promote a commitment to the advancement of the information professions through advocacy, continuing education and lifelong learning.	I.2.4, I.2.6, I.2.10

The Program reviews these goals during the first program faculty meeting of each academic year. Given the fast-changing nature of the information field, the faculty determined that an annual review of such critical goals would ensure that relevancy of the curriculum. In some years, there are no changes to the goals; in others, the goals are either completely rewritten or revised slightly to meet the needs of students and the professions.

The 2006-2009 Goals were:

Upon completion of the MLIS degree, graduates will incorporate the knowledge, skills, ethical foundations and social responsibilities of the information professions into professional practice.

Specifically, graduates will be able to:

- Draw effectively upon the ethics, values, principles, knowledge and history of library and information science and other related disciplines;
- Apply the principles of the information life cycle (selection, organization, dissemination and preservation);
- Advance the intelligent and ethical applications of information technologies;
- Apply the principles of management (planning and assessment, budgeting, human resources development and evaluation) to various functions in information environments;
- Plan, implement, evaluate and advocate for reference and user services to meet the needs of diverse users;
- Promote the ideals of open access to information and of intellectual freedom;
- Understand and apply research in library and information science; and
- Demonstrate a commitment to the advancement of the information professions through advocacy, continuing education and lifelong learning.

Revised and affirmed by the faculty of the Library and Information Science Program on October 7, 2009

In 2011, the faculty voted to revise the goals as can be seen in the following:

Goals for Graduates of the MLIS Program

Upon completion of the MLIS degree, graduates will incorporate the theories, knowledge, skills, ethical foundations and social responsibilities of the information professions into professional practice for the benefits of users. Specifically, graduates will be able to:

- Draw upon the ethics, values and history of library and information science and other related disciplines.
- Apply the principles of information management.
- Advance the creative and ethical applications of information technologies.
- Apply the principles of management to various functions in information environments.
- Plan, implement, evaluate and advocate information services to meet the needs of diverse users.
- Promote intellectual freedom and equity of access to information.
- Understand and apply research in library and information science.
- Promote a commitment to the advancement of the information professions through advocacy, continuing education and lifelong learning.

Revised and affirmed by the faculty of the Library and Information Science Program on April 6, 2011.

Program faculty review their courses to ensure that the curriculum will produce the desired outcome – that graduating students have the appropriate skills and knowledge to best serve the profession and society as a whole. To assess the impact and success of such revisions, the faculty track retention, the proportion of students meeting grade requirements in the core and elective courses, and the GPAs of students.

I.3 Within the context of these Standards each program is judged on the degree to which it attains its objectives. In accord with the mission of the school, clearly defined, publicly stated, and regularly reviewed program goals and objectives form the essential frame of reference for meaningful external and internal evaluation. The evaluation of program goals and objectives involves those served: students, faculty, employers, alumni, and other constituents.

Students and prospective students are made aware of the School's mission and goals, as well as program goals, through the School's and MLIS Web sites, at orientation, and through initial advising sessions. The School's mission and the MLIS program goals guide all assessment and evaluation activities. For example, the School's Annual Plan specifically delineates the connections between University goals, the School's mission and goals, and step-by-step proposed activities to ensure reaching those goals and contributing to the School's mission. The faculty annual reviews are framed in terms of advancing the program and School goals, outlining contributions to the success of the School. The mandatory Learning Outcomes Assessment specifically addresses how each evaluated course provides students with knowledge and skills as required by the profession and as expressed through the ALA Standards.

As described more fully in Standard I.1 and Standard V.4, the iSchool administration involves representatives of the entire iSchool community in governance (through the SIS Council) and various assessment activities (through surveys of students, graduated students and employers). The School has alumni representatives on the Board of Visitors and the Industry Advisory Council, both of which provide invaluable advice on program development and enhancement. Alumni opinions are also gathered through surveys and meetings/focus groups at regional and national conferences. Employers of graduating students are also represented on the Board of Visitors and the Industry Advisory Council.

Standard II. Curriculum

II.1. The curriculum is based on goals and objectives, and evolves in response to an ongoing systematic planning process. Within this general framework, the curriculum provides, through a variety of education experiences, for the study of theory, principles, practice, and values necessary for the provision of service in libraries and information agencies and in other contexts.

The curriculum of the MLIS program is evidence-based: the program goals, learning objectives and course syllabi are informed by research and practice in the field, and frequently updated to reflect trends and developments in the information landscape. The responses below draw upon examples from courses taught, projects assigned and/or completed, and courses of study within the specializations.

The goals of the MLIS Program are student-centric, outlining the skills, knowledge and understanding to be imparted to students.

<u>The MLIS Goals for Graduates</u>
Upon completion of the MLIS degree, graduates will incorporate the theories, knowledge, skills, ethical foundations and social responsibilities of the information professions into professional practice for the benefits of users. Specifically, graduates will be able to:

- Draw upon the ethics, values and history of library and information science and other related disciplines.
- Apply the principles of information management.
- Advance the creative and ethical applications of information technologies.
- Apply the principles of management to various functions in information environments.
- Plan, implement, evaluate and advocate information services to meet the needs of diverse users.
- Promote intellectual freedom and equity of access to information.
- Understand and apply research in library and information science.
- Promote a commitment to the advancement of the information professions through advocacy, continuing education and lifelong learning.

(http://www.ischool.pitt.edu/online-mlis/academics/goals.php)

The program faculty as a whole serves as the curriculum committee, an organizational structure that facilitates the development of consistent and meaningful learning experiences across the entire curriculum. Doctoral students attend curriculum meetings as teaching fellows/assistants, along with adjunct faculty, and are encouraged to provide feedback on their experiences as teachers, teaching assistants and learners as part of the ongoing review process. The review process incorporates feedback from students, gathered via reports from student evaluations of teaching, as well as the opinions of

members of the MLIS student advisory group, in addition to the results of reflection and self-evaluation by faculty. All faculty must request student evaluations from the University's Office for Measurement and Evaluation of Teaching (OMET) for each course that they teach. During the past two years, a reduced number of faculty members meant that the MLIS student advisory committee was put on hold for several terms. However, with the faculty almost back to its full complement of professors, the MLIS student advisory committee was reconstituted during Fall 2012.

Curriculum review is a continuous interactive process, with operational, tactical and strategic elements. The process includes: systematic monitoring of course offerings, in line with the annual and termly teaching cycle; *ad hoc* proposals for additions or changes to courses, initiated by faculty members to meet academic and professional needs; and periodic evaluation and review of the curriculum at program level, conducted as a strategic exercise. Every year, when preparing course schedules, the faculty reviews the schedule and decides which courses will be offered and in which term(s) they will be taught. These decisions are based on several criteria – historic course enrollments, current demand from students, instructor availability, length of time from the previous course offering of a less frequently offered course. Periodically (every 2-3 years), the whole course catalog is reviewed and courses are deleted as necessary. New, experimental courses are periodically introduced based on faculty and PhD student interest in developing and teaching a course that corresponds to their area of research or which addresses a change in the profession (see CUR 3). Thus, in meetings during Fall 2012, the LIS faculty: reviewed the current course catalog to identify courses for deletion, and courses for transition from special topics to regular electives; discussed progress and plans for migration of courses to the new PittOnline mode of delivery; received proposals for reconfiguration of required and elective courses in the Archives, Preservation and Records Management specialization, and for changing the name of the specialization to Archives and Information Science; and discussed the external program evaluation of the IMLS-funded Certificate of Advanced Study in Health Sciences Librarianship. In addition, the faculty established a sub-committee to lead a comprehensive review of the MLIS curriculum, which is currently in progress and due to complete the review of the MLIS core courses in Spring 2013. The results of the review of core courses to date will be available on-site. In Fall 2013, the review process will address the courses in high demand (such as LIS 2184) Legal Issues in Information Handling: Copyright and Fair Use in the Digital Age. Following this, the faculty will begin to review the specialization-specific courses, which is appropriate in that the process will incorporate the anticipated new faculty member. For a description of each specialization, see Standard II.5

Curriculum review and reform is also reflective of information gathered as part of the annual University Learning Outcomes Assessment, the Peer Review of Teaching process, and other planning and assessment endeavors. The Learning Outcomes Assessment involves an annual effort by the program faculty to extensively and comprehensively review a specific course (including course activities) to ensure that the course leads to attainment of a specified level of student learning (see CUR 7). The Peer Review of Teaching process is mandated and supported by the School of Information Sciences and the University of Pittsburgh. The purpose of this process is to ensure that teaching quality remains a key priority, that continual improvement of teaching occurs, and that recognition and reward of teaching excellence is provided. For more information about the Peer Review of Teaching process, see Standard III.2. All faculty, teaching fellows, and adjuncts participate in this process on a regular basis on the schedule as provided in Standard III.2.

The MLIS program weaves theory, principles, practice and values throughout the entire curriculum. This includes encounters with the key ethical issues and core values of the information professions. Space does not permit a detailed account of how each class structures theory, principles, practices and values – these can be gleaned from the course syllabi included in Appendix ***CUR 1***. Below are examples of how specific courses/particular courses of study integrate theory, principles, practice and values. (Examples of experiential opportunities can be found in Section II.4.)

- LIS 2005 Organizing and Retrieving Information, a core course, provides in-depth examinations of the building blocks of the LIS field, including: standards (e.g. AACR, RDA, FRBR; MARC exercises; RUSA Behavioral Guidelines); controlled vocabulary and thesauri (e.g. LCSH, Sears, MeSH, ERIC Descriptors, Art & Architecture Thesaurus); classification schemes (e.g. DDC, LC, SuDoc); faceted and progressive classification systems; and functional training (e.g. OCLC, methods for information retrieval).

- In LIS 2700 Managing Libraries and Information Systems and Services in Changing Environments (a required course for MLIS students, except students in the SLCP and APRM specializations), a special emphasis is placed on ethics and values, connecting effective management and leadership with the core values of the information professions, including a commitment to diversity and inclusion.

- Students in the APRM specialization encounter theory, principles, and practices, and explore the ethical issues and core values as they relate to the archival world. The APRM specialization builds on a notion of archival knowledge consisting of theory, methodology, and practice. Each APRM course has a strong focus on theoretical principles. In LIS 2222 Archival Appraisal, students are required to read a variety of seminal writings on archival theory, as well as newer writings incorporating postmodernist criticism or blending the two.

- Courses in the Children and Youth Specialization are grounded in theories from within and beyond the field of information studies. These include: information behavior theory, such as Kuhlthau's Information Search Process model and Dervin's sense-making; literary theories (Fish's/Rosenblatt's reader response theory versus more formalist approaches); theories of cognitive and language development (Piaget, Erickson, Vygotsky); and socio-technical theories (Mcluhan's technical determinism, Lave & Wenger's communities of practice). These theories lead to a range of principles that can be applied to library services for children and youth. For example, with social constructivist approaches to literacy development in mind, students plan a program proposal for an early childhood library program in LIS 2335 Library Services for Early Childhood. In LIS 2633 Technology in the Lives of Children and Youth, a class that looks at the effects of technology on children's lives, students learn about digital and media literacy and are then asked to design a service for teens that teaches a digital literacy skill: in one assignment, they design a program for Teen Tech Week; in another, they create a digital story that teaches a digital literacy skill.

Standard II.2 The curriculum is concerned with recordable information and knowledge, and the services and technologies to facilitate their management and use. The curriculum of library and information studies encompasses information and knowledge creation, communication, identification, selection, acquisition, organization and description, storage and retrieval, preservation, analysis, interpretation, evaluation, synthesis, dissemination, and management.

The curriculum of the iSchool's MLIS program focuses on the life cycle of information and knowledge, and places a strong emphasis on the services and technologies employed in the LIS profession. Students need to complete a minimum of 36 credits to obtain the master's degree. Even if they are enrolled in one of the MLIS specializations, 12 of the 36 credits are core courses that provide a thorough understanding of the principles, theories, issues and values of the LIS and associated professions. These core courses explore: the information world, including the information professions and organizations in which they work (LIS 2000 Understanding Information); key concepts and techniques in information organization and retrieval (LIS 2005 Organizing and Retrieving Information or LIS 2224 Archival Access and Representation); the management and leadership of information organizations (LIS 2700 Managing Libraries and Information Systems and Services in Changing Environments or LIS 2215 Preservation Management); and the computing and network technologies used to create, manipulate and disseminate information and knowledge (LIS 2600 Introduction to Information Technologies).

Required courses in the MLIS degree			
Children & Youth; Health; Individualized; Information Technology; Reference	**Digital Libraries**	**Archives and Information Science** *(reflects changes approved October 2012)*	**School Library Certification Program**
LIS 2000 Understanding Information	LIS 2000 Understanding Information	LIS 2000 Understanding Information	LIS 2000 Understanding Information
LIS 2005 Organizing and Retrieving Information	LIS 2005 Organizing and Retrieving Information	LIS 2224 Archival Access and Representation	LIS 2005 Organizing and Retrieving Information
LIS 2600 Introduction to Information Technologies	LIS 2407 Metadata or LIS 2670 Digital Libraries or INFSCI 2140 Information Storage & Retrieval	LIS 2600 Introduction to Technologies	LIS 2600 Introduction to Technologies
LIS 2700 Managing Libraries and Information Systems and Services in Changing Environments	LIS 2700 Managing Libraries and Information Systems and Services in Changing Environments	LIS 2220 Archives and Records Management	LIS 2774 School Library Center Management
		LIS 2215 Preservation Management	
		LIS 2222 Archival Appraisal	

Forming a cohesive foundation of knowledge, the core courses cover the basic concepts for library and information professionals. These core courses provide a solid foundation for students' more advanced learning objectives and professional goals. They also serve as prerequisites for many of the elective courses, so that students in the subsequent courses can start from a uniform foundation. Although there is no specific sequence for these core courses, students are advised to take them early in their program of study, taking account of the need to accommodate the prerequisites for their intended electives.

Some specializations have a stronger emphasis on certain aspects of the discipline, so the ratio of core courses to elective courses can vary across specializations. For example, the Digital Library specialization expands the technology core to include INFSCI 2140 Information Storage & Retrieval, LIS 2407 Metadata, and LIS 2670 Digital Libraries, whereas the APRM specialization replaces LIS 2005 and LIS 2700 with LIS 2220 Archives and Records Management, LIS 2222 Archival Appraisal, LIS 2223 Archival Access, Advocacy, and Ethics, and LIS 2224 Archival Representation. (Beginning in 2013, LIS 2224 will combine Archival Representation and Access, in a similar reconfiguration to the melding of courses on Information Organization and Information Retrieval, enabling students to take more elective courses reflecting the increasing breadth and diversity in contemporary archival practice.

Students, with the help of their advisor, select the required number of electives to meet their personal professional goals. The MLIS courses are organized into broad categories covering different aspects of the discipline, to help students construct a coherent program of study in accordance with their personal preference for a broadly-based or specialized professional education. The table below shows the present classification of LIS courses.

MLIS Course Schema	
Core Courses	2000 - 2099
General Courses	2100 - 2199
Book Arts, Preservation, Archives	2200 - 2299
Resources and Services for Specific Patron Groups	2300 - 2399
Organization of Information	2400 - 2499
Subject Area Resources and Services	2500 - 2599
Information Technology	2600 - 2699
Management Courses	2700 - 2799
Organizational Behavior	2800 - 2899
Individual Options	2900 - 2999
Doctoral Studies	3000 - 0000

Standard II.3 The Curriculum

The MLIS curriculum builds upon theoretical foundations with a variety of practical training opportunities, which prepares graduates to become leaders in the library and information professions, and to provide services and access to meet the needs of a diverse society. The curriculum is constantly

reviewed and updated to reflect rapid developments in technology and media, and the increasingly global nature of society. The iSchool faculty works closely with local, national and international practitioners to lead and shape the future directions of the Information Professions.

Standard II.3.1 fosters development of library and information professionals who will assume an assertive role in providing services

At the iSchool, the MLIS program aims to imbue graduates with a strong commitment to providing equity of access to services that meet the needs of diverse users as stated in the "Goals for Graduates". In specific curriculum design, LIS 2700 Managing Libraries and Information Systems and Services in Changing Environments focuses on key management theories and practice-based competencies in preparing students to be successful, service-oriented managers and leaders at all levels of diverse organizations. Students in this diversity and inclusion-infused course develop skills and understanding of important management and leadership areas, such as core values and organizational culture; strategic planning; communication; leading productive meetings; managing people, money, facilities, conflict, and change; collaboration and partnerships; marketing and public relations; legal and ethical issues; and professional development. Other examples include:

- APRM students take LIS 2220 Archives and Records Management and LIS 2215 Preservation Management, which orient archives students to management and leadership issues and approaches in relation to various types of archival facilities.

- LIS 2587 Applications in Medical Informatics requires students to complete a research assignment on an individual leader from the biomedical informatics field, and to share their biographies with classmates.

- LIS 2322 Resources for Children engages students in critical evaluation of materials for use in a multicultural society and discusses concepts related to diversity and equity in collection management as introduced in readings, lectures, and discussions.

In addition to exploring practical applications in the classroom, the LIS program provides opportunities for students to gain hands-on experience through the Field Experience courses. Field Experience courses require 150 hours of supervised professional work in an approved information environment. Field Placements must be coordinated by a faculty supervisor (typically the lead faculty member for the relevant specialization) and a professional practitioner as site supervisor. Placements are available in corporate libraries, medical libraries, legal libraries, academic libraries, public libraries, archives, as well as other organizations. From an academic point of view, the field placement courses offer students the opportunity to apply theoretical knowledge and lessons learned in the classroom in practice settings. A similar learning experience, the Practicum, is required for students in the SLCP specialization.

Standard II.3.2 emphasizes an evolving body of knowledge that reflects the findings of basic and applied research from relevant fields

The MLIS curriculum provides an understanding of both the theoretical and practical aspects of the field of knowledge. In addition to covering both theoretical foundations and practical applications, courses examine the most up-to-date basic and applied research in the field of Library and Information Science. In lecture-based courses, this is done by incorporating findings and readings from contemporary media, peer-reviewed publications, recently-published books and monographs, and conference proceedings. In seminars and several special topics courses, this is accomplished through conducting extensive review of the literature, then reflecting upon the findings. The following tables illustrate how a sampling of courses feature research related to the theoretical foundations of the field and connect contemporary research to practical applications in library services.

Examples of theoretical foundations in courses	
Courses	Examples
LIS 2000 Understanding Information	Introduces key concepts in information organization and retrieval including terminology and models, including examination of the nature of the user's information needs.
LIS 2222 Archival Appraisal	Requires students to read a variety of seminal writings on archival theory, as well as newer writings incorporating postmodernist criticism, or blending the two (e.g. Terry Cook, "Mind over matter: Towards a new theory of archival appraisal," in Barbara L. Craig, ed., *The Archival Imagination: Essays in Honour of Hugh A. Taylor* (Ottawa: Association of Canadian Archivists, 1992, pp. 38-70).
LIS 2322 Resources for Children	Draws on theories of information behavior (Kuhlthau's Information Search Process model, Dervin's sense-making), critical theory, literary theories (Fish's/Rosenblatt's reader response theory versus more formalist approaches), and theories of cognitive development (Piaget, Vygotsky).
LIS 2335 Services for Early Childhood	Incorporates theories of cognitive language development (Piaget, Vygotsky) and introduces Vygotskian approaches to family literacy, such as the Zone of Proximal Development and Physical development.
LIS 2586 Health Sciences Information Sources & Services and LIS 2587 Applications in Medical Informatics	Discusses the ideas of leading thinkers, such as N. W. Matheson. Readings include: N. W. Matheson, "The idea of the library in the twenty-first century," *Bulletin of the Medical Library Association*, 1995 83(1),1-7; N. W. Matheson, "Things to come: Postmodern digital knowledge management and medical informatics," *Journal of the American Medical Informatics Association,* 1995, 2(2), 73-78; N. W. Matheson & J. A. Cooper, "Academic information in the academic health sciences center: Roles for the library in information management," Journal *of Medical Education*, 1982, 57(10 Pt 2), 1-93.
LIS 2633 Technology in the Lives of Children and Youth	Explores socio-technical theories (McLuhan's technical determinism, Lave & Wenger's communities of practice), and theories of

	constructionist/connectionist learning.
LIS2670 Digital Libraries	Examines the conditions and factors influencing the development of digital library services, focusing largely on technological and socioeconomic issues.
LIS 2774 School Library Management	Integrates research and theory on constructivist learning, pedagogy, and Learning by Design Curriculum.

Examples of courses incorporating research in practical applications	
Courses	Examples
LIS 2322 Resources for Children	In the context of contemporary information policy (Children's Internet Protection Act, Children's Online Privacy Protection Act), students design an information tool for children: students select materials for children and build a mini-collection on a specific topic.
LIS 2335 Services for Early Childhood	In the context of the five early literacy practices from Every Child Ready to Read and family literacy as a practice, students design a program for an early childhood audience.
LIS 2586 Health Sciences Information Sources & Services	Multiple units on searching MEDLINE and using MeSH. Students do at least six individual MEDLINE searching tasks, and one group project on accessing MEDLINE via a minimum of three different portals.
LIS 2633 Technology in the Lives of Children and Youth	Students create a digital story that teaches one component of the new digital literacies in the context of current information policy (CIPA, COPPA).
LIS2670 Digital Libraries	Students complete a team project that results in a practical digital library system for resolving real world problems
LIS2921 Field Experience in APRM	Students involved in this field experience elective meet regularly as a group, and read and discuss articles, such as John W. Roberts, "Archival theory: Much ado about shelving," *American Archivist*, 1987, 50(1), 66-74. This permits them to consider in a timely manner the age-old tension between what they learn in the classroom and what they experience in the field.

Course materials, particularly reading lists, are expected to be updated regularly to best reflect the evolving body of knowledge in the relevant field. More details are available in the course syllabi available in Appendix ***CUR 1***.

To best present the latest developments in practical areas and applications, leading practitioners and other experts are invited to present guest lectures in many classes. See Standard II.3.7 for a more complete description of the topics addressed by guest lecturers.

The program faculty meets monthly, where they discuss curriculum design and updates. When the need arises to develop new courses, one or several faculty will take the lead in the effort. For example, recognizing the importance of digital libraries in the profession and the unique combination of strengths in the iSchool's LIS and IST programs, the Digital Libraries specialization was launched in Fall 2006. The

formal process is discussed further in Standard V.1. In addition, the program has introduced several courses to better meet the needs of the MLIS students and the information professions. Some examples are shown in the following table. A more comprehensive list is provided in Appendix ***CUR 3***.

Courses introduced 2006-2012 to enhance the MLIS program		
Course Name	Course Description	Year
LIS 2184 Legal Issues in Information Handling: Copyright and Fair Use in the Digital Age	Concepts, legislation, and case law about censorship, freedom of access to information, privacy, copyright, professional liability, and other issues. Legal implications and safeguards. Origins, development, evolution, and pivotal role of copyright, fair use, and related issues within the 21st century information, legal, policy, and economic framework.	2008
LIS 2335 Library Services for Early Childhood	Knowledge and skills needed to provide developmentally appropriate services for children, ages 0 to 5 years, and their families and caregivers. Design, implementation, and evaluation of library programming for young children. Role of family and caregivers in language and literacy development. Current trends, issues, and problems in the area of library services for young children.	2008
LIS2633 Technology in the Lives of Children and Youth	Effects of media on young people, ages birth to 18 years; technology in everyday life – from toys to television; gaming and libraries; filtering; privacy and child safety; social networking/cyber bullying; information/media literacy instruction in children's libraries (public); digital libraries for children; evaluation of digital resources for children; children's information behavior; interaction/interface design for young people; digital divide and social equity issues; global perspectives – technology in young people's lives around the world; future trends.	2008
LIS2407 Metadata	Principles and application of metadata for networked information-resource organization, representation, retrieval, and interoperability using a variety of schemes and tools.	2010

The MLIS program also offers "Special Topics Courses," which are developed and offered to address emerging topics on a timely basis. These courses often take advantage of faculty's research expertise, PhD research interests, or adjuncts' practical experience. Special topics courses provide a flexible means by which curriculum/course development, innovation or experimentation can be achieved very quickly. Such courses may be offered only once or twice, as needed, or formally incorporated into the curriculum with a discrete course number. The Appendix ***CUR 3*** offers a list of those Special Topics courses which have been formally added to the curriculum.

Standard II.3.3 integrates the theory, application, and use of technology

As stated in the goals of the MLIS program, the curriculum emphasizes both the importance of ethical and creative use of information technology in current library and information services and the integration of theory into the practical application of technology.

The LIS program views information technology as one of the core competencies for graduates, specifying LIS 2600 Introduction to Information Technologies as one of the four required courses for all MLIS students, with the exception of students who have demonstrated more advanced IT skills during an

interview with the instructor for the advanced class. If the interview process satisfies the instructor that the student has the appropriate foundational knowledge and competence in technology, they will be granted a formal exemption from this requirement by the advanced course instructor. However, such students are required to take instead an advanced information technology course to fulfill the core technology requirement. The student will have to seek approval of the advanced course instructors, the advisor, and the Program Chair in order to achieve the exemption.

The program's commitment to integrating technology is demonstrated in the creation of both the Information Technology specialization and the specialization in Digital Libraries, which is one of the most rapidly-growing fields. The Digital Libraries specialization prepares future information specialists to design, develop and manage digital libraries and repositories, to work as digital-content managers, digital curators, web masters, and information architects. In this specialization, students can focus on either the systems that support digital libraries or on the digital collections – including the curation/management of such collections. To best inculcate students in contemporary information technology used in digital library services, the program draws on the expertise of both the LIS and IST faculties and academic programs – students in this specialization take courses from both.

In addition to the obvious technology-oriented courses, other courses in the LIS curriculum often integrate the application and use of technology to solve real-world LIS problems. Thus, the LIS 2670 Digital Libraries class requires students to adopt existing open source digital library systems to design the appropriate repositories suitable for actual applications, while LIS Resources for Children explores touch technology, including picture book apps for iPads. In addition, APRM students often do papers on digital issues in several of the specialization's courses. The following tables provide examples of the range of technology projects undertaken by students in LIS 2670 Digital Libraries, and examples of how technology is integrated into many other MLIS courses.

Examples of student digital library projects from LIS 2670 Digital Libraries	
Using technology for information	• Oakland4Now • Food Production and Consumption in the United States • HerStory • Russian Literature • Sound Birds
Using technology for instruction	• Project Grace • Education Department Repository
Using technology for preservation	• George M. Baird Digital Library • Library Tools • Pittsburgh Zine • Rodriguez Family • Pittsburgh Great Flood 1936
Using technology for minority groups	• Chinese Minorities • Latin American Literature • Irish Music • Javanese Gamelan Music • GLBT DL

Examples of the application of technology in a range of MLIS courses	
LIS 2005 Organizing and Retrieving Information	Students complete two retrieval assignments that allow them to demonstrate adequate searching abilities in databases and web-based services
LIS 2223 Archival Access, Advocacy and Ethics	Students were required to write short research papers on a technology of their choice leading to the transformation of archival reference – this resulted in a published essay: Richard Cox and the University of Pittsburgh Archives Students, "Machines in the archives: Technology and the coming transformation of archival reference," First Monday, 2007, 12(11). http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2029/1894.
LIS 2322 Resources for Children	Students explore how to build services around touch technology, including iPads and picture book apps for children. Students evaluate and select web sites for children to be included in a library pathfinder or a library web site, in response to a lecture that covers basic concepts of credibility, reliability, etc. as well as what to be aware of vis à vis personalization, behavioral marketing, and web sites for children. Students are also introduced to relevant legislation (COPPA, CIPA).
LIS 2335 Services for Early Childhood	Introduces students to digital resources for librarians and parents, such as the Fred Rogers Center Early Learning Environment (ELI).
LIS 2587 Applications in Medical Informatics	Introduces applications of information technology in a wide range of medical settings, including integrated hospital information systems, clinical decision support, medical education, patient-specific information, telehealth and systems related to different healthcare services (e.g. nursing, radiology, pathology and pharmacy).
LIS 2774 School Library Media Center Management	Emphasizes being an effective consumer and/or producer of information, based on using the most current tools (Web 2.0 tools, social media, apps, digital storytelling). In addition, students create electronic portfolios.
LIS 2633 Technology in the Lives of Children and Youth	Students create a digital story that promotes information or digital literacy skills. The class visits immersive environments, such as Club Penguin. Students engage with technology topics through readings and writing, including cross-platform reading-viewing-playing in children's media, such as ***The 29 Clues*** mystery series for children and the Harry Potter web site, Pottermore.
LIS 2970 Information Sources, Services, and Technology for an Aging World	Covers the critical evaluation of materials in print, non-print and electronic formats and discussion of information services provided by healthcare organizations, community agencies and libraries serving an aging population or professionals working with older people.

Standard II.3.4 Responds to the needs of a diverse society including the needs of underserved groups

Diversity is important to the iSchool community, the University of Pittsburgh and the Information Sciences discipline as a whole. The Information Sciences discipline and the iSchool are immeasurably strengthened by the inclusion of perspectives and creativity from all different types of people. This diversity is needed to address the complex and multifaceted issues confronting society in its management and use of information. The iSchool attracts students and faculty from diverse ethnic and academic backgrounds, mirroring the global and diverse nature of the information professions. Students find a welcoming multi-cultural and multi-disciplinary environment that will support them throughout their academic career here at the iSchool.

The MLIS program addresses issues of diversity and responds to the needs of underserved groups across the curriculum. Some specific examples of courses designed to address diversity issues include:

- LIS 2700: Managing and Leading Libraries and Information Services

An important aim of this course is to promote an inclusive learning community that encourages the dynamic, open exchange of ideas and affirms the diversity and dignity of participants and perspectives within a safe and mutually respectful environment. The course is designed to provide students with the competencies to operationalize diversity and inclusion in organizations. The instructor maintains a diversity and inclusion blog at http://kipcurrierdiversityinclusion.blogspot.com/

- LIS 2228 International Perspectives on Archives

Archival issues are analyzed from an international perspective: archival history in the 20th century, archival standards and practices, and relation between archives, collective memory and accountability.

- LIS 2970 Digital Citizenship (Special Topics Course)

This course examines the digital divide; the role of librarians in addressing digital inequality; and the changing norms, laws, architecture, and markets governing information technology in politics and society more generally.

- LIS 2970 Cultural Heritage (Special Topics Course)

Examines the application of various archival theories and practices in cultural heritage, cultivates a better appreciation of cultural groups represented in the cultural heritage industries, and analyzes the various ethical stances surrounding their cultural property, cultural traditions, art, and other memory devices and institutions.

- LIS 2970 Information Resources, Services, & Technology in the Aging World (Special Topics Course)

Focuses on collection development, reference and education services in medical and public libraries, healthcare organizations, community agencies, and academic libraries with students and faculty interested in the helping or service professions, especially in fields that focus on older people.

- LIS 2970 Literacy in the Information Age (Special Topics Course)

Introduces students to two central ideas, genre and provenance, and explores with them the strengths and limits of different types of information. This is fundamental to being "literate" on the web and in/with many forms of information.

- LIS 2585 Health and Consumer Resources and Services

Teaches students to identify appropriate and accurate resources for consumer health and family education, as well as covering policy issues in providing consumer and family-health information in different settings.

- LIS 2327 Multicultural Resources and Services in School Library Media Centers

Surveys multicultural resources in a variety of formats and teaches the utilization of such resources with students and teachers in K-12 schools.

- LIS 2329 Special Education Resources and Service in School Library Media Centers

Educates students in the information-seeking behaviors of students and teachers in the K-12 school library environment directly related to special education populations in schools. (Course was discontinued in 2012 due to revisions to the Department of Education's requirements for certification.)

- Field Experience Courses

Provides students with hands-on experience in responding to the needs of a diverse society. Such courses are offered in a wide variety of settings, which, in turn give MLIS students the chance to work within intuitions that serve diverse populations.

Diversity issues are by no means siloed to a certain set of courses. In fact, topics related to diversity and the underserved are interwoven into almost every course in the MLIS program, particularly in the core course LIS 2700 Managing and Leading Libraries and Information Services. The table below provides a sample of assignments and learning activities from courses in the MLIS program that guide students to respond to the needs of a diverse society, including the needs of underserved groups.

Addressing diversity and underserved audiences throughout the curriculum	
Course	**Example**
LIS 2700 Managing and Leading Libraries and Information Services	Students complete a "Hot Topic Report"— a 5-7 page paper, citing a minimum of five relevant scholarly and/or non-scholarly sources. Examples of topics include "Diversity and inclusion in libraries" and "Americans with Disabilities Act (ADA) compliance/accessibility in libraries". Students post their Hot Topic Reports within 8-10 member small discussion groups and exchange ideas by reading the reports. Students are required to read a rich range of texts on the topic of diversity, including but not limited to: Candi Castleberry-Singleton, "From bolted-on to built-in: Diversity management and intergroup leadership in U.S. corporations," In Todd L. Pitinsky, ed., *Crossing the divide: Intergroup leadership in a world of difference* (Boston, MA: Harvard Business Press, 2009, pp. 187-202); Beverley Daniel Tatum, "The complexity of identity: 'Who' am I?", Maurianne Adams et al., eds., *Readings for diversity and social justice: An anthology on racism, anti-Semitism, sexism, heterosexism, ableism, and classism* (New York: Routledge, 2000, pp. 9-14).
LIS 2633 Technology in the Lives of Children and Youth	Includes group discussion and student writing based on a selection of readings on the topic of the digital divide.
LIS 2322 Resources	Includes readings and discussion about multicultural children's literature, and

for Children	serving special needs children in the public library.
LIS 2585 Health Consumer Sources & Services	Includes several units on underserved populations (African American, Latino, Asian and Pacific Islanders, GLBTQ, the disability community, etc.)
LIS 2223 Archival Access, Advocacy, and Ethics	Learning modules directly related to providing information access to marginalized groups, including discussion of controversy surrounding SAA and the "Protocol**s** for Native American Archival Materials"
LIS 2970 Archives and Cultural Heritage	Includes a learning module that examines information in cultural institutions (museums, archives) from indigenous perspectives. Students read Christina Kreps, *Liberating culture: Cross-cultural perspectives on museums, curation and heritage preservation* (London: Routledge, 2003).

Standard II.3.5 Responds to the needs of a rapidly changing technological and global society

This Standard is reflected in the University of Pittsburgh's own mission statement: "The University of Pittsburgh's mission statement recognizes that the institution has responsibilities in a global society." The iSchool's *Goals for Graduates of the MLIS Programs* extrapolate this further: "Upon completion of the MLIS degree, graduates will incorporate the theories, knowledge, skills, ethical foundations and social responsibilities of the information professions into professional practice for the benefits of users." In particular, the third goal states: "Advance the creative and ethical applications of information technologies." The fifth goal implicitly encompasses globalization: "Plan, implement, evaluate and advocate information services to meet the needs of diverse users."

Numerous courses in the MLIS curriculum can be cited as examples of responding to the needs of a rapidly changing technological and global society. Several examples include:

- LIS 2700 **Managing Libraries and Information Systems and Services in Changing Environments**

The diversity and inclusion-infused curriculum of this core course prepares MLIS students to be responsive and responsible service managers and information leaders in a diverse global society by promoting an inclusive approach to planning, implementing, evaluating and advocating library and information services designed to meet the needs of contemporary multicultural communities.

- LIS 2600 Introduction to Information Technologies

This core course provides all MLIS students with an introduction to computing and networking technologies, with an emphasis on how they are used to create, manipulate, and disseminate information related to library and archival services. It emphasizes core technologies of digital libraries; namely, databases and digital documents, and addresses a set of competencies essential for all librarians and information professionals.

- LIS 2670 Digital Libraries

This course examines the conditions and factors influencing the development of digital library services, focusing particularly on socioeconomic and technological issues.

- LIS 2587 Applications in Medical Informatics

This course provides an introduction to the applications of information technology in a wide range of different areas in medical and healthcare environments (including hospital information systems, clinical decision support, patient information and different healthcare specialties). It contains a unit and a major assignment focused on international informatics.

- LIS 2633 Technology in the Lives of Children and Youth

This course is designed to help students address the effects of media on young people, examining technology in everyday life – from toys to television, gaming and libraries, privacy and child safety, social networking/cyber bullying. It provides a global perspective on technology in young people's lives around the world, and future trends.

- LIS 2680 Database Design and Applications

The course covers the characteristics and concepts of database systems; the database development process, including entity-relationship model, relational database models, normalization, structured query language (SQL), the basics of transaction management and physical database design; current database technologies; and database applications in libraries and archives.

The table below offers a sampling of courses within the MLIS curriculum which facilitate student learning on how to respond to "the needs of a rapidly changing technological and global society."

Learning about the needs of a rapidly changing technological and global society	
Course	**Example**
LIS 2322 Resources for Children	Students read children's books about Muslims in Afghanistan and participate in discussion and writing on the topic of the global child.
LIS 2228 International Perspectives on Archives	Course offers several learning modules specifically focused on various issues of theory and practice in archives in Europe, Africa, South America and Central America.
LIS 2670 Digital Libraries	Course includes a guest speaker from Beijing Institute of Technology, Zhendong Niu, who discusses digital library practices in China.
LIS 2587 Applications in Health Informatics	Students complete an assignment to write a paper on informatics initiatives in a country of their choice, which are then shared with the rest of the class for discussion.

The MLIS program is an active participant in the WISE program. Web-based Information Science Education (WISE) is a unique and groundbreaking opportunity for iSchool students to take elective online courses from other ALA-accredited programs. The WISE consortium uses advanced technology as a means to enrich one's education and to foster relationships among students, faculty and universities. Membership in the WISE program permits the LIS program to offer courses in areas outside of program faculty expertise; many of the courses reflect emerging areas of interest which are technology-related. For example, through WISE, MLIS students have access to courses on data mining, e-Government, Electronic Health Records, linked data, scholarly communications, e-publishing, and social informatics. Several of the LIS faculty have received awards from the WISE consortium for their outstanding online

teaching. Students attending schools participating in WISE have increased access to special topics and electives as compared to those who attend non-WISE schools.

II.3.6 Provides direction for future development of the field

The MLIS program advances the continued development of the field by offering courses that address future research areas, service areas, and technologies. Some representative examples of this aim to provide direction to the 21st century information professional include:

- Recognizing that MLIS graduates will be addressing open source issues and open access publishing in their careers, faculty have integrated these discussions into the curriculum, namely in LIS 2600 Introduction to Information Technologies (required course) and LIS 2184 Legal Issues in Information Handling: Copyright and Fair Use in the Digital Age.
- Given that reference activities occur not only in a face-to-face environment but also an electronic one, LIS 2500 Reference Resources and Services provides students with exposure to the tools and skills needed to perform reference services in both scenarios including the evolving digital reference environment.
- LIS 2405 Introduction to Cataloging and Classification provides students with the foundation needed to perform descriptive cataloging with AACR2 and also equips them with an understanding of RDA. In doing so, the cataloging students are provided with the direction that will aid them as the field transitions to RDA as a content standard.

There is a strong commitment to, and indeed expectation for, faculty and doctoral student research and publishing at the University of Pittsburgh. The emphasis on publishing is extended to MLIS students, with faculty encouraging students to submit strong course papers for publication in academic journals. In doing so, MLIS students are themselves providing direction to the field through published scholarship. One example of this is the group of student essays that were published in the *Journal of Information Ethics* in the spring of 2010. The volume, guest edited by Richard Cox, was the product of the work by students in LIS 2223 Archival Access, Advocacy and Ethics in the spring 2009 term.

The doctoral program is committed to producing graduates who are equipped with research and teaching skills for careers in academia. This preparation begins during the first semester of the doctoral student's program with the LIS 3000 Introduction to Doctoral Studies seminar providing an orientation to the program and to academic culture in higher education. There is substantial interaction between the doctoral students and the MLIS students, as doctoral students have the opportunity to teach courses and work with MLIS students in the School of Information Sciences. Moreover, many of the doctoral students choose to design courses that relate to their own research interests and that explore emerging topics in the information field. One doctoral student in the archives area, for example, obtained approval from the faculty to teach a course on moving image and new media archives in the summer 2012 term. In doing so, the doctoral student educator connected students with an area of archival work that has historically been given limited attention in archival scholarship and that is relevant to 21st century archivists.

II.3.7 Promotes commitment to continuous professional growth

The MLIS program at the University of Pittsburgh is committed to fostering the professional growth of students, which is evidenced in a number of ways.

Professional organizations such as the American Library Association, Society of American Archivists and the Special Libraries Association play a key role in the community of library and information professionals. MLIS students have the opportunity to participate in many different student organizational chapters, each of which are supported by an assigned faculty advisor and staff member. The student organizations are highlighted in Standard IV.5.

Discussions about the professional organizations are woven through courses in the MLIS program. A few examples illustrate this: LIS 2700 Managing and Leading Libraries and Information Services delivers a module entitled "Professional Associations and Conferences." Students in LIS 2586 Health Sciences Resources and Services discuss the role of the Medical Library Association's Academy of Health Information Professionals (AHIP) credentialing process; these students often attend local health sciences continuing education activities and participate in continuing education courses at national Medical Library Association conferences.

MLIS students are also connected to the work of professional organizations by courses that consider competencies statements that were developed by relevant professional organizations. For example, Leanne Bowler introduces students to the Association for Library Service to Children's *Competencies for librarians serving children in public libraries*. In doing so, MLIS students who are aspiring children's librarians become familiar with the identified competencies for professionals serving this user group. In addition, the SLCP curriculum is based on the concepts outlined in *Information power: Building partnerships for learning*, national guidelines developed in 1998 by the American Association of School Librarians and the Association for Educational Communication and Technology. In 2003, the American Association of School Librarians approved *Standards for initial programs for school library media specialist preparation,* which has also been incorporated into the curriculum. These standards have been approved by the National Council for Accreditation of Teacher Education (NCATE).

To facilitate the students' interactions with professional organizations, the iSchool makes funding available for students to attend professional conferences, an opportunity that complements their classroom education. The school has intensified its efforts to advertise the travel awards to MLIS students in the past three years and faculty remind students of professional conferences and funding opportunities. There has been an increase in the number of MLIS students who received travel funding; in the fiscal year 2010, there were six MLIS student recipients of travel funding, while in the fiscal years 2011 and 2012, there were 19 MLIS student recipients.

The school offers a full program of professional workshops to its MLIS students. In the summer of 2012, as one example, the University's Associate Director of Corporate and Foundation Relations offered a session to MLIS students on identifying grant sources and preparing grant proposals. This workshop was specifically tied to a course, LIS 2970: Archives and Performance, and, as such, there was a curricular tie-in. However, the workshop was open to all MLIS students as a professional development opportunity. In addition, the school's alumni society offers a significant day-long workshop on improving job search capabilities and tools.

Similarly, faculty members bring in information professionals as guest speakers who provide insight and guidance about the profession to the MLIS students. The table below provides a sampling of some of the guest speakers who have recently connected with iSchool students.

In-class Guest Speakers

LIS 2322 Resources for Children

- Lisa Dennis, Head of Children's Collections at the Carnegie Library of Pittsburgh;
- Georgene DiFillippo, Head of Children's Services at the Carnegie Library of Pittsburgh;
- Lisa Brahms, Director of MakeShop at the Children's Museum of Pittsburgh (model for MakerSpaces in libraries)

LIS 2633 Technology in the Lives of Children and Youth

- Kelley Beeson, Director of the Center for Creativity (former head of children's services for Allegheny County Library Association);
- Librarians from the Carnegie Library for the Blind & Physically Handicapped

LIS 2335 Services for Early Childhood

- Maria Genest, doctoral student and early literacy specialist;
- Roberta Schomberg, Director of Graduate Programs in Early Childhood Education, Carlow University, Pittsburgh, to talk about the position statement issued by the National Association for the Education of Young Children on *Technology and interactive media as tools in early childhood programs serving Children from Birth through Age 8*

LIS 2670 Digital Libraries

- Ed Galloway, the director of the digital research library at the University of Pittsburgh;
- Zhendong Niu, Professor of Computer Science, Beijing Institute of Technology, one of the pioneers of digital library projects in China who discussed digital library practices in China

LIS 2700 Managing Libraries and Information Systems and Services

- Rachel Callison, Senior Librarian, iSchool alumna, Software Engineering Institute, Carnegie Mellon University, representing the academic and special library managerial perspectives.
- James Cassaro, Adjunct Assistant Professor of Music and Head, Theodore M. Finney Music Library, University of Pittsburgh, representing the academic and music special libraries' managerial perspectives.
- Candi Castleberry-Singleton, Chief Diversity and Inclusion Officer, University of Pittsburgh Medical Center. Topic: Diversity and Inclusion;
- Margaret Domer, Senior Librarian, iSchool alumna, The Foundation Center, Carnegie Library of Pittsburgh. Topic: Grant Seeking and Grant Writing;
- Susan Hudak, Department Head – Bibliographic Services, iSchool alumna, Carnegie Library of Pittsburgh Main Library, representing the public library middle manager perspective.
- Paula Kelly, Director, Whitehall Public Library (PA), iSchool alumna, representing the "accidental" library manager/leader and suburban public library leadership experience.
- Karen Liljequist, Medical Librarian, The Children's Institute, iSchool alumna, representing the medical special libraries' and solo managerial experiences. Topic: Communication.

- Holly McCullough, Manager and Department Head, Carnegie Library of Pittsburgh, Squirrel Hill, iSchool alumna, representing the large urban public library perspective.
- Cynthia Richey, Director, Mt. Lebanon Public Library (PA), iSchool alumna, 2006 New York Times Librarian of the Year Award winner, representing the suburban public library leadership experience. Topics: Managing Money; Budget Challenges; Return on Investment;
- Karen Rossi, Manager and Department Head, Carnegie Library of Pittsburgh, Downtown and Business Branch, iSchool alumna, representing the large urban public library and special library perspectives. Topic: Managing Change;
- Karlyn Voss, Director, External and Government Relations, Carnegie Library of Pittsburgh Main Library. Topic: Strategic Planning;
- Barbara Zaborowksi, Associate Dean for Learning Resources and Special Assistant to the President, Pennsylvania Highlands Community College, iSchool alumna, representing the academic and community college managerial perspectives. Topic: Collaboration and Partnerships

Standard II.4. The curriculum provides the opportunity for students to construct coherent programs of study that allow individual needs, goals, and aspirations to be met within the context of program requirements established by the school and that will foster development of the competencies necessary for productive careers. The curriculum includes as appropriate cooperative degree programs, interdisciplinary coursework and research, experiential opportunities, and other similar activities. Course content and sequence relationships within the curriculum are evident.

To assist students in planning a coherent program of studies, the School lays out an academic plan for the specializations as well as an individualized program of study. The LIS program has developed program planners for each specialization, a set of tools available on the School's web site that help students to map out their course of study. With the program planners, students can see at a glance which courses are required and recommended within each specialization. (See Appendix ***CUR 5*** for examples of program planners.)

In order to assure a strong foundation, all students in the MLIS program must complete four-to-six required courses, depending on the specialization. The table below describes the required courses for each of the specializations. (See Standard II.5 for a more complete description of each specialization in the MLIS program.)

Required courses in the MLIS degree			
Children & Youth; Health; Individualized; Information Technology;	**Digital Libraries**	**Archives and Information Science** *(reflects changes*	**School Library Certification Program**

Reference		*approved October 2012)*	
LIS 2000 Understanding Information	LIS 2000 Understanding Information	LIS 2000 Understanding Information	LIS 2000 Understanding Information
LIS 2005 Organizing and Retrieving Information	LIS 2005 Organizing and Retrieving Information	LIS 2224 Archival Access and Representation	LIS 2005 Organizing and Retrieving Information
LIS 2600 Introduction to Technologies	LIS 2407 Metadata or LIS 2670 Digital Libraries or INFSCI 2140 Information Storage & Retrieval	LIS 2600 Introduction to Technologies	LIS 2600 Introduction to Technologies
LIS 2700 Managing and Leading Libraries and Information Services	LIS 2700 Managing and Leading Libraries and Information Services	LIS 2220 Archives and Records Management	LIS 2774 School Library Center Management
		LIS 2215 Preservation Management	
		LIS 2222 Archival Appraisal	

The MLIS program allows for substantial customization. The Individualized specialization, as mentioned above, permits students to construct their own program, in collaboration with their faculty adviser. The specializations also offer a wide array of relevant electives. For example, students in the Children and Youth specialization may choose from six electives related specifically to services and information needs of young people. As well, the LIS program has initiated a series of 1-credit modules on specialized topics during the summer term. Students can mix and match these modules in multiples of 3 credits to suit the needs of their academic program. The modules cover a wide range of topics including exploring MAKERSPACES, acquisitions and electronic resource management, user-centered advisory services, local resources, fiscal management, academic resources, open access and institutional repositories. The topics are selected by a team of LIS faculty based on their knowledge of the field, their prior experiences as practitioners, and student demand. As this is a relatively new development (introduced in Summer 2012), the initiative's successes and challenges are under continuing consideration by the lead faculty for this effort, Elizabeth Mahoney. The APRM specialization, in direct response to students seeking more electives, is now offering more electives during the summer term (generally the final term in the 36-credit MLIS). The School is a member of the WISE consortium, a collaborative distance education model that expands the depth and diversity of course offerings to MLIS students. Students also have the option to pursue a course of individual research, for one term or two depending on the scope of the research project (LIS 2901 and LIS 2902, Individual Research). The research projects are developed under the guidance of a faculty member.

To ensure that students follow a clear path through their degree, beginning with the four foundational (required) courses and ending with electives that allow for more specialization, the LIS program instituted a policy in Fall 2012 that students will be admitted in the fall term only. A wider array of electives (including the 1-credit modules and new electives in the APRM specialization) are offered in the summer. The field experience and practicum, capstone experiences for students, are completed only after 12 credits of coursework (preferably the core courses) are completed, thus guaranteeing that this

experience in the field provides a rich opportunity for students to apply their newly-acquired theoretical knowledge and professional skills. The impact of this change will be assessed over the next three years.

Hands-on approaches to learning are embedded throughout courses. The MLIS program bridges the theory-practice divide by asking students to design, plan, and build information systems and services that are framed by the theory and principles of LIS. Examples of the range of experiential opportunities embedded in curriculum include:

- In LIS 2335 Services for Early Childhood, students prepare a program portfolio based on a needs assessment in a real children's library. The program portfolio includes a proposal which links specific actions to a theoretically-grounded rationale, a program plan, a curriculum, and list of resources, as well as promotional materials. Students are encouraged to share their program portfolios with the library that inspired its development.
- In LIS 2633 Technology in the Lives of Children and Youth, students create an original digital story that uses narrative to teach an information and media literacy skill using freely available web-based tools. This exercise serves as a model for programming with teens and tweens in public libraries.
- In LIS 2670 Digital Libraries, students participate in a team project to design and build a functional digital library system to resolve a real world problem.
- In the APRM specialization, students read case studies, work in group projects applying what they have learned to real-life scenarios, or are involved in field experiences. While the APRM program does not require a field experience, at least two-thirds of the APRM students normally engage in it.
- In LIS 2586 Health Sciences Information Sources and Services, students complete at least ten individual MEDLINE searching problems and one group project on accessing MEDLINE via a minimum of three different portals.

Proportion of MLIS Students enrolled in specializations

Specialization	Fall 2009	Fall 2010	Fall 2012	Fall 2012
Academic Libraries (discontinued in 2010)	6.0%	0.0%	0.0%	0.0%
Archives	16.9%	17.1%	19.0%	18.7%
Digital Libraries	0.0%	0.8%	0.3%	1.7%
Individualized	0.5%	17.1%	35.0%	43.2%
Information Technology	0.0%	2.1%	6.4%	5.8%
Resources: Children	0.2%	4.0%	9.3%	11.2%
Resources: Health	0.0%	1.9%	2.9%	1.7%
Resources: Reference	0.0%	4.3%	10.3%	9.5%
SLCP	20.8%	16.3%	11.6%	8.3%
Undecided	0.0%	13.1%	5.1%	0.0%
Unknown	55.6%	23.5%	0.0%	0.0%

In addition to these hands-on, experiential activities, many courses incorporate visits to libraries and information centers in the Pittsburgh area (for example, LIS 2586 and LIS 2585 require a visit to an appropriate site).

Field Experience Requirements and Elements

A suite of field experience and practicum courses allows students in the MLIS program to extend their experiential learning. The field experience was reviewed by a sub-committee in LIS during the 2010 term, leading to a wider range of Field Experience options in order to serve the unique needs of each specialization. Although a general field experience course (LIS 2921) is still offered, students can now select a field experience that is more tailored to their specialization. (Students may register for only one field experience during their MLIS degree). The lead faculty in the specialization guides the development and implementation of the specialized field experiences. These include:

- LIS 2921 Field Experience (General);
- LIS 2924 Field Experience in APRM;
- LIS 2925 Field Experience in Reference;
- LIS 2926 Field Experience in Information Technology & Digital Libraries;
- LIS 2933 Field Experience in Children's and Youth Services;
- LIS 2935 Field Experience Health Resources & Services;
- LIS 2922 Practicum in School Library Media Programs;
- LIS 2923 Practicum in School Library District Media Programs.

MLIS Enrollment (Proportion) in Practicums/Field Experiences	
2006-2007	42.3%
2007-2008	34.0%
2008-2009	39.3%
2009-2010	50.1%
2010-2011	48.6%
2011-2012	50.6%

In addition to registering for Field Experience, students must submit a one- or two-page proposal outlining their goals to the faculty advisor, along with the Field Experience Application Form and signed Site Agreement. The proposal must be approved by both the faculty advisor and the site supervisor in the semester prior to beginning the field experience. Individual schedules are arranged between the student and the site supervisor; it is the student's responsibility to notify the faculty advisor of the schedule arrangements. Students are expected to plan on working a minimum of 150 hours per term for three credits. They must meet with the faculty advisor at least once a month, or as necessary, to discuss their progress at the site. It is recommended that students keep a written log of the placement experience to be examined by, and discussed with, the faculty advisor, who determines the appropriate final deliverables for the field experience, which may include a report or a project. Grading is based on performance as determined by the site supervisor and the quality of the final report/project as determined by the faculty supervisor. Field experiences receive pass/fail grades rather than letter grades.

The School has deep connections to libraries, information centers, and archives throughout Western Pennsylvania and beyond. Sites where students have been placed include:

- Carnegie Library of Pittsburgh
- Carnegie Mellon University
- Carnegie Museum of Art

- Chatham University
- Free Library of Philadelphia
- Heinz Corporation
- Senator John Heinz History Center
- Internet Public Library (Digital Library)
- Mount Lebanon Public Library
- Pittsburgh Film Makers
- The Andy Warhol Museum
- University of Pittsburgh Medical Center: Children's Hospital, UPMC Shadyside
- University of Pittsburgh, University Library System
- VA Hospital Library

This is a partial list of field sites. For more complete details regarding the Field Experience and the range of field sites available to students, please see the Field Experience web page (http://www.ischool.pitt.edu/lis/experience/field-exp.php).

The program has tasked a staff member with administrative oversight for the Field Experience, Internships, and Partners Program. This staff member facilitates applications, matching, record-keeping, and follow-up. The course schedule for each term provides students with the names of each faculty member and the different Field Experiences that they are responsible for. It is the student's responsibility to seek out the advisor and specific Field Experience course that best matches their goals for a Field Experience. See http://www.sis.pitt.edu/~sisint/courses/13_4/2134_LIS.pdf .

Online students have the same options to do Field Experiences where allowed by Federal Law. Please note that internships are permitted in ALL states except *Iowa, Massachusetts, Nevada, New Hampshire, Ohio, Washington State, Maryland and Louisiana*. The University is systematically working through the process to gain permission to offer Field Experiences in these states. Reports from the Field Experiences and Practicums will be available on-site.

Independent Research

MLIS students may register for LIS 2901/2902 Independent Research, in which research is undertaken on a topic selected by the student and carried out with scheduled reports to a faculty member. Reports of the research may take various forms as determined in advance by the student and faculty member. Faculty member's agreement to sponsor required. A maximum of three credits may be earned under this course number.

Non-LIS courses available to MLIS students

There are a number of courses cross-listed within the School of Information Sciences, which permits students to easily take courses of interest that overlap the disciplinary boundaries between the degree programs. Such courses available to the MLIS student population include the LIS 2194 Information Ethics course, which is cross-listed across all three academic programs in the School. At the doctoral level, the seminar in Digital Scholarship was offered as a doctoral level course in the LIS program and as a masters and PhD course in the Graduate Information Science and Technology program (LIS 3970/INFSCI 2965/INFSCI 3150). This seminar was also open to MLIS students, who can take any number of courses listed for other programs within the school, as long as they do so in consultation with their adviser to

make sure that the courses they take fit their program of study. WISE courses are considered to be iSchool credit-bearing courses as they are designated with a School course number and they have been vetted for credit parity.

MLIS students also have the option to take up to six credits of coursework from outside of the MLIS program and the School of Information Sciences. This permits them to take electives to meet their personal or academic career goals. The number of electives may be determined by the chosen specialization – the School Library Certification and Health: Resources and Services call for courses outside of the School of Information Sciences. These courses may be drawn from graduate studies at faculties and departments within the University of Pittsburgh or from other universities, if the following stipulations are met:

- The courses have to be approved by the faculty adviser;
- The courses must have been taken within four years;
- The courses cannot be/have been applied to another degree
- A grade of B or better must be earned in the course.

Number of MLIS Students enrolled in non-LIS courses

	Fall 2010	**Spring 2011**	**Summer 2011**	**Fall 2011**	**Spring 2012**	**Summer 2012**	**Fall 2012**
# of MLIS students	**72**	**89**	**28**	**50**	**62**	**21**	**27**

The numbers of students taking non-LIS courses has changed dramatically over the last three years due to changes to the Term of Entry and the demands of certain specializations. However, a significant number of students do take the opportunity to participate in courses outside of the MLIS program. Some of the more popular courses taken by MLIS students include Data Structures, Database Management, Information Storage and Retrieval, Human Information Processing, and many courses from the School of Education.

Graduate students from other University of Pittsburgh schools do take LIS courses at both the Masters and Doctoral level, including students from the School of Education, School of Nursing, School of Health and Rehabilitation Sciences, and the Graduate School of Public Health.

The iSchool, by its nature, fosters multidisciplinary coursework, classes, research and faculty. This benefits students by exposing them to differing and enriching theoretical perspective. This is facilitated in a number of ways. For example, three iSchool faculty members hold joint appointments with other programs or departments and bring these diverse perspectives into their research and classrooms. Ellen Detlefsen has a joint appointment in the Department of Biomedical Informatics, School of Medicine, and serves as a faculty member in the University's Clinical and Translational Science Institute (CTSI). Alison Langmead has a joint appointment as Director of the Visual Media Workshop in the Department of Art History and Architecture and as Lecturer on courses in the Archives, Preservation and Records Management specialization in the School of Information Sciences. Daqing He is a member of both the LIS and GIST programs at the School, as well as holding a joint appointment with the Intelligent Systems Program, a multidisciplinary program based in the Kenneth P. Dietrich School of Arts and Sciences, but which brings together faculty from several professional schools at Pitt. Hassan Karimi, a member of the

faculty in the GIST program, developed and taught LIS 2695 Geographic Information Systems for Librarians, which will be offered again in Spring 2014. Leanne Bowler has worked with Jamie Skye Bianco, a professor in the English department at the University of Pittsburgh who specializes in digital composition, to develop a learning module on digital storytelling.

Standard II.5. When a program includes study of services and activities in specialized fields, these specialized learning experiences are built upon a general foundation of library and information studies. The design of specialized learning experiences takes into account the statements of knowledge and competencies developed by relevant professional organizations.

The Master of Library and Information Science offers students the opportunity to pursue specializations or to create, with the guidance of their adviser, an individualized program of study. The specializations reflect statements of knowledge and competencies developed by relevant professional organizations and are described below. Each specialization is guided by a faculty member with expertise in that area. (See Appendices ***CUR 4 and 5*** for complete details regarding the recommended program of studies in each specialization)

- Archives, Preservation, and Records Management (APRM, due to become Archives and Information Science (AIS) in Fall 2013): This specialization provides the skills and knowledge to identify and analyze recordkeeping systems from legal, evidential, historical, and cultural perspectives. Students gain an in-depth knowledge of records and recordkeeping systems, digital records management, archival appraisal and access, the history and evolution of recordkeeping systems, digital preservation and curation, and preservation management of library and archives collections. The APRM curriculum partly responds to the Society of American Archivists (SAA) *Guidelines for a graduate program in archival studies*, but also goes beyond what such professional guidelines suggest. Lead faculty: Richard Cox.
- Children and Youth: Resources and Services: The School has a long-standing tradition in the area of Children and Youth Library Services. Without forgetting its important roots in children's literature, the school prepares information professionals who can reach out to the child of the 21st century. The specialization was re-assessed in 2008 so that it could remain aligned with the set of competencies for librarians serving children and youth in public libraries, as outlined by the Association for Library Services to Children (ALSC) and the Young Adults Library Services Association (YALSA). In 2009, new courses were added in two key areas; (1) early literacy; and (2) technology. A field experience with a focus on children's and youth services in public libraries was developed in 2010, linked to learning objectives specific to the specialization. Lead faculty: Leanne Bowler
- Digital Libraries: This specialization offers the knowledge and skills essential for a successful career in the digital libraries field, focusing on relevant information technologies, information-organization principles, and end-user needs. Students in this specialization take courses in both the LIS and IST programs and can focus on either the systems that support digital libraries or on the digital collections, including the curation and management of such collections. This course of study was developed based on the expertise of the various faculty involved: Martin Weiss,

Daqing He, Sherry Koshman, Michael Spring, and Christinger Tomer. This specialization will be revised based upon results of the comprehensive curriculum review to be undertaken over the next year. Lead faculty: Christinger Tomer, Daqing He, Jung Sun Oh, and Peter Brusilovsky.

- Health: Resources and Services: This specialization focuses on medical libraries and knowledge-based information in the clinical and research setting. Students also explore medical informatics or consumer and patient-health information sources and services. The intent of this specialization is to orient prospective health-information professionals to the theory, methodology, and practice of medical information management, including but not limited to medical librarianship. LIS 2586 Health Sciences Information Sources and Services is designed to meet the competencies listed in the Medical Library Association's *Educational policy statement* http://www.mlanet.org/education/policy/. Students in LIS 2586 Health Sciences Information Sources and Services certify via the University of Pittsburgh Medical Center (UPMC) Health System in four modules on ethical conduct of research with human subjects and responsible literature searching. LIS 2587 Applications in Medical Informatics is designed to cover the topics in the American Medical Informatics Association statements on education at http://www.amia.org/about-amia/science-informatics and http://www.amia.org/clinical-informatics-medical-subspecialty. Students in LIS 2587 must certify in HIPAA via the UPMC Health System. Lead faculty: Ellen Detlefsen.
- Information Technology: Students who specialize in information technology learn how to assess, organize, and manage the various electronic systems that support contemporary library and information services, and also gain theoretical understanding that prepares them to participate in the design and evaluation of future systems. The specialization emphasizes courses in database design and implementation, information architecture, and information visualization. Students may also take courses in digital preservation and the management of digital collections. This course of study was developed based on input from the LIS program faculty and the expertise of Professors Tomer and He. Lead faculty: Christinger Tomer and Daqing He.
- Reference: Resources and Service: The Reference specialization provides students with working knowledge of a wide range of reference sources and services in areas such as government documents, social sciences, science and technology, law, health, and humanities. Students learn how to analyze users' needs to determine what information is appropriate; to make useful judgments about the relevance, trustworthiness, and quality of sources; and to assess methods for delivering the desired information. These courses best support some of ALA's "Key Action Areas" http://www.ala.org/aboutala/missionhistory/keyactionareas and various divisions' guidelines and standards such as those from RUSA (Reference and User Services Association), http://www.ala.org/rusa/ and ACRL (Association of College and Research Libraries), http://www.ala.org/acrl/issues/infolit. Lead faculty: Elizabeth Mahoney.
- School Library Certificate Program (SLCP): This specialization prepares students to be certified school library media specialists. Students in this specialization earn both an MLIS degree and an Instructional I teaching certificate in Library Science, K-12, from the Pennsylvania Department of Education. The curriculum is based on the national guidelines developed in 1998 by the American Association of School Librarians and the Association for Educational Communication and Technology as well as the American Association of School Librarians' *Standards for initial programs for school library media specialist preparation*." Lead faculty: Mary Kay Biagini.
- Individual: The School recognizes that many students prefer to customize their program of study to suit their individual professional interests, needs, and motivations. To allow for flexibility in

program construction, students are offered the option to follow an individualized path, constructed in collaboration with the student's adviser. Pitt Online students currently fall under the individualized category, as the new Pitt Online program does not yet offer specializations. The individualized program is developed with the advice of each MLIS student's adviser.

Standard II.6. The curriculum, regardless of forms or locations of delivery selected by the school, conforms to the requirements of these Standards.

For part of the period covered by this self study, the iSchool offered an online MLIS program known as the "FastTrack MLIS" program. Founded as the first online graduate degree program at the University, FastTrack was based on the concept of mirroring the on-campus degree program in the online environment. This meant that many of the LIS courses were taught on-campus and recorded for broadcasting online. As discussed in Standard V.8, the iSchool determined to transition the online offerings over to a comprehensive learning/teaching environment hosted by the University. This is an on-going process, one that will be completed in the 2017-18 timeframe. In the meantime, online students take MLIS courses irrespective of the platform of delivery. Courses that are not yet converted to Pitt Online will be delivered through the existing "blended" teaching system. Current and prospective students will not experience any interruption in course offerings, although they could experience two online course modalities. Faculty will continue to deliver courses via the FastTrack technology until they are available through Pitt Online.

Regardless of whether a course of study is offered online or on-campus, the curriculum shares the same set of goals and learning outcomes. All academic requirements for the MLIS program are applied uniformly, regardless of the modality of the learning environment. Transcripts and diplomas do not distinguish between an on-campus or online degree. At this time, the only difference between curricular offerings for on-campus and online students is that the MLIS: Pitt Online has only the individualized program of study. The faculty is considering the need for, and the process to undertake, offering specializations within the online environment. The courses offered online are also evaluated using the same tools: the OMET and Peer Review of Teaching processes.

Standard II.7. The curriculum is continually reviewed and receptive to innovation; its evaluation is used for ongoing appraisal, to make improvements, and to plan for the future. Evaluation of the curriculum includes assessment of students' achievements and their subsequent accomplishments. Evaluation involves those served by the program: students, faculty, employers, alumni, and other constituents.

The LIS program conducts regular audits of the electives and special topics courses. The program faculty gathers a significant body of data in order to appraise, improve, and plan for the future. For example, the offering of courses is determined on data provided about course enrollment: LIS 2670 Digital Libraries and LIS 2184 Legal Issues in Information Handling: Copyright and Fair Use in the Digital Age are

now being offered in more terms because the enrollments in the courses indicated a high level of demand. The specialization-specific courses in the Health Resources and Services specialization are being offered online more often due to increasing enrollments in the online sections and decreasing enrollments in the on-campus sections.

Demographic enrollment data led the program to offer more practical experience and out-of-the-classroom learning opportunities. As the age of the incoming students declined, it was apparent that they would not have the benefit of practical experience as did earlier cohorts of students who were much older. Therefore, the curriculum would have to facilitate students' and employers' desires for more real-world, hands-on experience.

Other data sources include the following: annual learning assessments, surveys of currently-enrolled students, an alumni survey, an employer/partners survey, and input from the newly-reconstituted MLIS Advisory Group. The School's Board of Visitors and various advisory groups offer additional feedback with regard to employer's needs and expectations.

In general, new courses or major course revisions are undertaken in response to changes in the field as evidenced by changes in professional standards, changes in user populations, and changes signaled in the academic literature. For example the LIS 2194 Information Ethics now addresses cyberbullying, privacy and security – issues which have surfaced in academic journals, practitioner publications, and the popular media. Another example would be the addition of a health-related course addressing the particular needs of a prevalent population within Western Pennsylvania: the Special Topics course on "Information Resources, Services, and Technology in the Aging World."

To ensure that the curriculum is reflective of changes in the associated professions, faculty maintain close relationships with practitioners and potential employers. As an example, over the past four years, Leanne Bowler has been working closely with the Coordinators of Children's Services and Teen Services at the Carnegie Library of Pittsburgh (CLP), fine-tuning the field experience so that it provides rich opportunities for students to build competencies in services for children and youth. This close working relationship has led to the School being named as a partner in a current IMLS-funded project to plan and design 21st century learning labs (http://www.imls.gov/about/learning_labs.aspx), which is expected to open up internship opportunities for our students and create new research opportunities for LIS faculty. Ellen Detlefsen meets regularly with professional colleagues in health sciences libraries, particularly with reference to their participation in real-world projects for classes and field placements for MLIS students. Sheila Corrall has contributed to the strategic planning activities of the University Library System (ULS) at Pitt and is currently serving on the steering group for a staff skills and competencies evaluation project. Mary Kay Biagini maintains a close relationship with the school library community throughout Pennsylvania as does Richard Cox with the archival community.

For Fall 2013, a series of revisions will be made to the Archives, Preservation and Records Management (APRM) specialization in the MLIS program. The curricular changes recently approved (October 2012) by the LIS faculty and SIS Council also includes the change of the specialization's name from APRM to Archives and Information Science (AIS). These curricular changes, with the addition of one new elective and the reworking of several required courses, have been made in response to and anticipation of changes within the archives field, namely a more intense focus on digital curation and stewardship, and on community knowledge and archives practices, as seen in other graduate archival education

programs, conferences, and research and scholarly publications. This curricular revision represents a reduction of focus on preservation and records management and an enhanced stress on digital and research concerns. The name change to AIS also reflects this, as well as tying into the signature areas of the iSchool's curriculum and research.

The faculty also attend many of the annual conferences of professional associations, such as the American Library Association, the Society of American Archivists, the Medical Library Association, the Pennsylvania Library Association, and the Pennsylvania School Library Association. This permits them to explore leading edge issues within the field, incorporating them into the curriculum. It also offers the opportunity for faculty to garner input on the academic program from alumni and leaders in the profession. For example, the LIS Program Chair met with 65+ alumni at the Pennsylvania Library Association Conference in 2012. In particular, input was sought about future revisions of the curriculum to meet the needs of the profession. This input will be considered in the comprehensive curriculum review, which is underway. One immediate result is that the need for a course in research methods was confirmed by the alumni present, a course now being offered as a special topics course (LIS 2970 Special Topics: Research Methods in Library & Information Science. Another curricular innovation under consideration is the addition of certificates in clearly-defined niche subjects – these were specifically requested by the alumni present.

The iSchool follows the success of graduates with great pleasure. Upon graduation, students are asked to complete a survey that gauges their satisfaction with the program and their immediate career plans (employment offered/taken, further graduate study). The 2010 alumni survey also asked questions to determine the first employment placement, the current occupation, and the time to first job after graduation. The University of Pittsburgh Alumni Society endeavors to track employment of graduates throughout their career, but participation is voluntary.

Many of our former students have been named as Activists, Advocates, Change Agents and Innovators in the annual *Library Journal* "Movers and Shakers" awards, achieving national recognition for making a difference in the profession, for example:

- Corey Wittig (MLIS 2010), Digital Learning Librarian at the Carnegie Library of Pittsburgh, was named as an **Innovator** in the 2012 Movers and Shakers awards, for his creative use of social media and technology to make the teen department visible, accessible and attractive.
- Heather Holmes (MLIS 1998), Information Services Librarian at Summa Health System, Akron, Ohio, was named as a **Change Agent** in the 2011 Movers and Shakers awards, for her innovative work in developing a clinical medical librarian program at the Akron City Hospital, to provide point-of-care reference services and answer clinical questions at the bedside.
- Chad Haefele (MLIS 2005), Reference Librarian for Emerging Technologies at the University of North Carolina, Chapel Hill, Davis Library, was named as an **Innovator** in the 2011 Movers and Shakers awards, for his creative use of technology, including an alternate reality game (ARG), to support undergraduate learning.
- Mandy Knapp (MLIS 2007), Adult Services Librarian, Worthington Libraries, Ohio, was named as an **Advocate** in the 2010 Movers and Shakers awards, for her achievement in challenging state budget cuts and restoring $147 million in funding for the Ohio library system by setting up the Save Ohio Libraries website (http://saveohiolibraries.com).

- Rachel Walden (MLIS, 2006), Librarian, Eskind Biomedical Library, Vanderbilt University, Tennessee was named as an **Activist** in the 2009 Movers and Shakers awards, for her success in raising awareness about the science and politics of women's health issues through her blog, Women's Health News.
- Ingrid Kalchthaler (MLIS 1999), Head of Youth Services and Assistant Director, Shaler North Hills Library, Glenshaw, PA was also named as an **Activist** in the 2009 Movers and Shakers awards, for her work in creating libraries in homeless shelters, initiating a bully prevention program and events for homeschooled kids, while based at the Bethel Park Public Library in Pittsburgh.
- Carlie Webber (MLIS 2001), Young Adult Services Librarian, Bergen County Cooperative Library System, Hackensack, New Jersey was named as an **Advocate** in the 2009 Movers and Shakers awards, for her passionate advocacy of Young Adult literature and services, which has earned her a national reputation.
- Mark Vrable (MLIS 1992), Information Resources Supervisor, Oncology Nursing Society, Pittsburgh was named one of Library Journal's 2008 Movers and Shakers in the "Show Me the Evidence" category.

Further details about student success can be found on the iSchool's alumni Web site: http://www.ischool.pitt.edu/alumni/news/notes.php

The iSchool recognizes the outstanding accomplishments of alumni through programs such as the University of Pittsburgh Legacy Laureate Program (http://www.ischool.pitt.edu/alumni/about/laureates.php), Beta Phi Mu, and the Distinguished Alumni Awards (http://www.ischool.pitt.edu/alumni/about/awards.php). A complete list of alumni awards and recognitions is included in Appendices ***SCH 6***, ***SCH 7***, and ***SCH 8***.

Standard III. Faculty

III.1 The school has a faculty capable of accomplishing program objectives. Full-time faculty members are qualified for appointment to the graduate faculty within the parent institution and are sufficient in number and in diversity of specialties to carry out the major share of the teaching, research, and service activities required for a program, wherever and however delivered. Part-time faculty, when appointed, balance and complement the teaching competencies of the full-time faculty. Particularly in the teaching of specialties that are not represented in the expertise of the full-time faculty, part-time faculty enrich the quality and diversity of a program.

Universities place great emphasis on the significance of faculty in graduate programs, especially their teaching, research, and service activities (see University of Pittsburgh's Faculty Handbook at http://www.provost.pitt.edu/handbook/handbook.html). The academic programs are dependent upon the expertise of faculty in terms of program design, course development, and incorporation of research into the classroom (real and virtual). When faculty leave through retirement, for other opportunities in their fields, or because they have sadly passed away, academic programs re-evaluate their strengths and explore ways of enhancing their resources and expanding their objectives.

The iSchool has been reminded of the faculty's importance over the past several years in light of a number of departures due to deaths, illness, retirements, and departures. Three faculty members – Leigh Star, Sherry Koshman, and Bernadette Callery – died in the past three years. The retirements of Kimmel, Carbo, and Alman (officially a staff member, but one who taught extensively) – also took place during this self study period. Another faculty member – Jung-Sung Oh – is presently on family leave. Since the last COA report a number of new faculty have been hired but left unexpectedly for personal and/or professional reasons. The table below describes each of the current LIS faculty, as well as those who have left the School for various reasons.

Faculty Name	Date Hired	Status
Brian Beaton	2012	Pursuing tenure
Mary Kay Biagini	1988	Associate Professor, lead faculty for SLCP program
Geoffrey Bowker	2009	Left in 2011 to take another position after death of wife/research partner
Leanne Bowler	2008	Approaching (2013) tenure/promotion to Associate Professor

Bernadette Callery	2008	Deceased, 2012, after a year's medical leave
Toni Carbo	1986	Retired 2009
Sheila Corrall	2012	Professor and Chair, LIS Program
Richard Cox	1988	Professor, lead faculty for APRM specialization
James "Kip" Currier	2009 2007-09	Assistant Professor, co-PI for i3 project Visiting Professor
Ellen Detlefsen	1975	Associate Professor, lead faculty for Health Resources and Services specialization
Karen Gracy	2001	Unsuccessful tenure
Stephen Griffin	2012	Mellon Cyberscholar
Daqing He	2004	Promoted in 2010 to Associate Professor
Judith Jablonski	2008	Left for another position
Patrick Keilty	2011	One-year appointment ended in August 2012
Margaret Kimmel		Retired in 2010
Cory Knobel	2009	Left for position at another university
Sherry Koshman	2005	Deceased, 2011, after several medical leaves
Alison Langmead	2009	Joint position with the Department of the History of Art and Architecture
Ronald L. Larsen	2001	Dean and Professor
Patricia Lawton	2008	Left for position at another university
Elizabeth Mahoney	2012	After years of serving as head of iSchool library, took non-tenure permanent faculty position with iSchool
Rush Miller		University Librarian, Director University Library System & Professor
Jung Sun Oh	2009	On family leave until Summer 2013
Sam Oh	2012	2-term appointment
Stuart Shulman	2007	Left for another academic position
Susan "Leigh" Star	2009	Deceased 2010
Christinger Tomer	1989	Associate Professor, lead faculty for Information Technology specialization

* Susan Alman, the Director of Distance Education and Outreach, retired in 2012. Although a full-time staff member, Alman had a significant teaching load as adjunct faculty.

Other iSchool faculty changes during the same period include 2 hires, 2 retirements, 4 promotions and 2 departures affecting the Information Science & Technology, Telecommunications & Networking, and Undergraduate programs, as detailed below.

<u>Hires</u>
Konstantinos Pelechrinis (Telecommunications & Networking Program)
Rosta Farzan (Information Science & Technology Program)

Retirements
Douglas Metzler (Information Science & Technology Program)
Richard Thompson (Telecommunications & Networking Program)

Promotions
Peter Brusilovsky – Full Professor (Information Science & Technology Program)
Hassan Karimi – Full Professor (Information Science & Technology Program)
Michael Lewis – Full Professor (Information Science & Technology Program)
James Joshi – Associate Professor (Information Science & Technology Program)

Departures
Joseph Kabara – unsuccessful tenure (Telecommunications & Networking Program)
Glenn Ray – left for academic position at another university (Undergraduate)

The number of faculty changes have made it challenging to meet teaching responsibilities and to continue to conduct research in several key areas: the organization of information, cyberscholarship, information visualization, information architecture, and archives and records management. The permanent faculty were, in the short term, augmented by visiting faculty to provide teaching expertise in archives, organizing and retrieval, cataloguing, and architecture.

The School has ambitiously pursued recruiting and hiring new faculty. Sheila Corrall and Brian Beaton joined the iSchool in the Fall 2012 term. Corrall, a senior scholar and administrator from the University of Sheffield in the UK, was brought in as the LIS Program Chair as well as taking on teaching and research responsibilities. Beaton, a freshly-minted PhD in History from the University of Toronto, brings expertise in archives, social and cultural theory, information workplaces, design, public and scholar history, scholarly communications, digital humanities, and public policy. Elizabeth Mahoney, the former director of the SIS library and adjunct faculty member teaching in the areas of reference and children and youth services, joined the faculty as a full-time member starting in the Fall 2012 term. Alison Langmead was hired as a joint faculty appointment between the iSchool and the Kenneth P. Dietrich School of Arts and Sciences in 2009. She serves both as the Director of the Visual Media Workshop in the Department of the History of Art and Architecture and a Lecturer in the Library and Information Science Program, focusing her teaching work in the archives and information management area. Stephen Griffin, formerly a program officer at the National Science Foundation, has joined the faculty as a Visiting Professor, in a position funded by the Mellon Foundation, teaching and undertaking an ambitious research agenda in the area of cyberscholarship.

The School and University are committed to hiring faculty possessing the education, professional experience and research orientation necessary to meet the specific goals and objectives of the MLIS program. All eligible full-time LIS faculty members have been appointed as members of the University's Graduate Faculty, a status recommended by other members of the faculty on the basis of evidence of competence to direct graduate study and research at all levels. This is in accordance with University policy which states that "Membership in the Graduate Faculty shall be of two classes, "Regular" and "Adjunct." Regular membership shall be recommended for full-time faculty members or part-time, tenure stream members of the University faculty who are approved to direct graduate study and research at all levels. Adjunct membership shall be recommended for persons whose primary responsibility is outside the University but who hold a part-time faculty appointment and are approved

to direct graduate study and research at all levels. Only Regular members shall be eligible for election to the University Council on Graduate Study, and only Regular members may cast votes in such elections. (http://www.pitt.edu/~graduate/regorgan.html) Thus, our full-time lecturers are not eligible for admission to the Graduate Faculty Roster.

All candidates applying for full-time faculty positions are expected to hold an earned doctorate or the equivalent in academic or professional experience. Every full-time faculty member and those holding joint appointments in the LIS Program meets this requirement.

Beginning in Fall 2012, the School is undertaking a search for four faculty members, including an assistant/associate professor (non-tenure stream) in the LIS Program who will have expertise in historical and contemporary archival theory and practice, in relation to both analog and digital formats. This non-tenure stream faculty will join a cadre of outstanding non-tenure stream faculty currently teaching in the LIS Program including James "Kip" Currier and Elizabeth Mahoney. The open position had been held by Bernadette Callery. The school has strategically used the non-tenure stream option to recruit faculty who have demonstrated expertise in teaching and a passion to teach, thus taking on an enhanced teaching load. Such positions are not uncommon in other degree programs in the School, most particularly the undergraduate program. Other new appointments in 2013/2014 are intended to focus on digital stewardship, web science (including areas such as data-intensive scholarship, information visualization and data mining) and information assurance (including trust, privacy, security and digital forensics). One of these positions will hold a rank of "professor of practice" and will teach primarily in the undergraduate program.

These new faculty additions join a program faculty with documented strengths in both research and teaching. In addition to Corrall and Beaton, recently-hired faculty members include Leanne Bowler, Jung Sun Oh, and James "Kip" Currier. Bowler, who is preparing to come up for tenure in the next academic year, serves as the lead faculty member in children's and youth resources and services. In addition, Bowler has crafted a rigorous research program looking at the metacognitive abilities and development of young persons, information seeking behaviors of children and youth, and multi-modal literacy of young library users. Currier, who holds a non-tenure assistant professor position, teaches in intellectual property, information ethics and the management and leadership of libraries and information services. Jung-Sung Oh, in addition to teaching in the retrieval area, has initiated a research program looking into social information tools, social informatics, and metadata.

These young faculty members join a strong corps of individuals with extensive teaching experience totaling more than twenty years each, including Professor Richard Cox in the archives area, Associate Professors Daqing He and Christinger Tomer specializing in information technologies and digital libraries, Associate Professor Mary Kay Biagini in School Libraries and Adult and Young Adult Resources, and Associate Professor Ellen Detlefsen in Health Information Management and Medical Informatics.

Proportion of courses taught by full-time LIS faculty

Term	**Total # of classes taught***	**% of courses taught by FT LIS faculty**
Fall 2011	32	75.0%
Spring 2012	40	62.5%

Summer 2012	52	32.7%
Fall 2012	30	90.0%

Distribution of teaching across faculty type

Term	Full-time LIS**		Adjunct		Teaching fellow	
	Online	On-campus	Online	On-campus	Online	On-campus
Fall 2011	10	14	3	1	3	1
Spring 2012	14	11	5	4	3	3
Summer 2012	8	9	15	10	5	5
Fall 2012	13	14	2	1		

The continuing strategic use of adjuncts also brings into the classroom individuals who have additional experience in various LIS fields including archives, school library and media center management, and library instruction. The core courses are mostly taught by permanent faculty, but adjuncts and teaching fellows enable the program to offer a broader range of electives and specialization courses. For example, Miriam Meislik, a media curator at the University of Pittsburgh's Photographic Archives, teaches an elective course dealing with Photographic Archives; Lisa Santucci, Assistant Dean for Instructional Services and Emerging Technologies at Miami University Libraries, teaches an elective on the library's role in teaching and learning; Joe Prince, librarian at the Marshall Middle School, teaches an elective on Storytelling; and Sally Myers, librarian at the Penn Hills High School, teaches regularly in the School Library Certification program. Doctoral students in the LIS program are mandated to assist with the teaching of core courses, or to design and teach electives. This is a critical component in their education as future faculty members. Adjunct faculty and teaching fellows in specific specializations are selected and supervised by the lead faculty for the specialization. For example, Richard Cox has selected the adjuncts and teaching fellows who teach elective courses in the archives specialization. For general courses, the faculty can nominate appropriate adjuncts and teaching fellows who have professional experience or research interests in areas related to the course. The nominations of such instructors are considered by the LIS Program faculty who review the candidate's CV, resume and pertinent professional experience. Adjunct faculty and teaching fellows undergo the same teaching evaluation processes as full-time faculty including the student evaluations (OMET) and Peer Review of Teaching. See Appendix CUR 8 for a complete list of courses taught with instructors.

The assignment and evaluation of instructors is independent of the mode of course delivery. Full-time faculty teach the same course online that they do on-campus. Part of this is a function of the former delivery method, which involved recording on-campus classes for broadcast online. But a primary motivation for teaching across platforms is to ensure that online students receive the same quality instruction and learning experiences as on-campus students. Adjuncts and teaching fellows are retained to teach a specific course, regardless of how the course is delivered.

Being part of an Information School, faculty make major commitments to research both in their fields and across disciplinary boundaries. Richard Cox has been a prolific author of books and articles on a wide range of topics in the archives area and in LIS education. He is a three times winner of the Society of American Archivists Waldo G. Leland Award for the best monograph publication of the year. Daqing He has established a strong research record around digital libraries, information retrieval, and Web resources, and Leanne Bowler has developed an impressive record of research in children's and young

adult information behavior and human/computer interaction among children and youth. The more recent faculty hires provide a foundation for research that is both deeper and broader. The growth of research programs in science and technology studies, the application of management science concepts and intellectual capital perspectives to library resources and services, and investigation of emerging roles for information professionals in e-research, digital curation and datametrics are anticipated.

The LIS Program is beginning to see, building on the iSchool model, some cross-teaching and cooperative research across the degree programs. Hassan Karimi now teaches a course in Geospatial Information Systems that LIS students can take and Stephen Griffin is teaching a seminar that is cross-listed in all degree programs that explores Digital Scholarship. Konstantinos Pelechrinis, a faculty member in the Telecommunications program, offered a PhD seminar in 2012 that looked at network analysis. Daqing He has successfully sought funding for, and implemented, several research projects in partnership with Peter Brusilovsky exploring the creation of adaptive information access tools and technologies. Jung Sun Oh has served as a co-PI on an NSF-funded project to design a personalization and social networking system for short-term communities. Brian Beaton, Sheila Corrall, Richard Cox and Alison Langmead are representing LIS interests in progressing the School's move into the big data arena. Brian Beaton, Ellen Detlefsen, and Rosta Farzan (a new faculty member in the Information Sciences and Technology Program) have initiated a school-wide working group that is exploring social issues and social problems for the aging population that have a significant information, media, or technology component; the group is also compiling relevant teaching materials and serving as a platform for cross-program collaboration

III.2 The school demonstrates the high priority it attaches to teaching, research, and service by its appointments and promotions; by encouragement of innovation in teaching, research, and service; and through provision of a stimulating learning and research environment.

The iSchool and the University endeavor to support and reward faculty for all of their endeavors and contributions, wherever they fall within the teaching-research-service spectrum.

Recognition

In 2007, the faculty began to discuss the School's evaluation of faculty accomplishments and workload. In part, this was due to the dichotomy that exists when a professional graduate program resides in a research university. Obviously, an AAU-member university values the research activities and contributions of faculty. However, a professional graduate program depends upon the teaching skills and courses offered by faculty. In many institutions, the research efforts are more valued than the time and effort devoted to teaching. This causes undue stress on faculty, particularly those in the tenure stream. The Dean and Associate Dean, with considerable input from the faculty, created a parametric faculty model that redresses this situation. In this model, teaching is recognized as much as research. Service to the school, the university and the professions is also rewarded. Faculty members submit an annual report on their teaching, course development, research and service. The elements of the report are then entered into the faculty model, which weights contributions across all three domains – research, teaching, and service. This results in an equitable evaluation of teaching and research

contributions. In addition, the model recognizes the various appropriate publication venues specific to each discipline. Faculty raises, as well as other incentives, are allocated based on performance as assessed in the model. The annual review process is also considered in promotion and tenure cases.

The annual faculty review process has been a significant factor in helping all faculty in their development as the faculty receive considerable feedback regarding their past year's work. Faculty members, as part of this process, also submit a plan for the forthcoming year, matching their individual goals and objectives against those of the School and the LIS program. This self-reflective process has led to individual faculty seeking greater collaboration with other faculty in both research and teaching, with enhanced knowledge about how to prepare for promotion and tenure. The faculty feel that this metric-based model results in an extremely effective annual faculty evaluation process, one that has extended beyond subjective assessments and student teaching evaluations to provide substantial detail of performance that can be used for improvement.

Within the iSchool, tenure stream faculty members are offered all possible assistance in developing their expertise and scholarly credentials and in enhancing their teaching. The tenured faculty help newer colleagues through collaboration on joint proposals, review of journal and conference papers, and encouraging and assisting the tenure stream faculty member in acquiring University committee appointments. As reported in the 2006 COA Program Assessment, there have been experiments in formalizing mentoring and collaborative work in both research and teaching. The efforts to do this have resulted in newly hired faculty working with senior faculty on both grants and publishing, evidence of which can be seen in the list of faculty publications (see Appendix ***FAC 3***), even as such collaboration has remained more informal.

Support for Teaching Innovation and Excellence

As stated in the last COA report, the increased use of technology in the curriculum, especially with the online program, has led to faculty enhancements in instructional design, especially as this goes with other resources such as labs and graduate student support. The University's Faculty Instructional Development Lab (FIDL), for example, is a facility dedicated to supporting the instructional development needs of Pitt faculty. The facility provides faculty with the opportunity to investigate and apply instructional theory, learning theory, information and multimedia technologies to instructional development projects. The transition to the Pitt Online platform, utilizing a different configuration of instructional design and technologies, will foster more efforts and enhancements in online instructional design and delivery. For example, courses presented as part of the Pitt Online program are designed by the faculty member supported by a team of specialists in instructional design and online pedagogy.

Teaching effectiveness has always been highly valued in the iSchool's academic programs. New faculty members, along with current PhD students, typically complete a course in instructional design offered by the University's Center for Instructional Design and Distance Education (CIDDE). This Center is also available on an as-needed basis to revise and improve courses, course materials, and delivery techniques to ensure that the faculty feel comfortable in the classroom and gain knowledge on the most current developments in teaching and learning. For example, faculty can arrange individual consultations with CIDDE experts and take advantage of their resources and tools when designing a new course or undertaking a major revision of an existing course.

The School also provides an appropriate level of financial resources to provide teaching support in terms of teaching assistants and teaching fellows. Teaching assistants are utilized in courses with significant enrollments and/or multiple sections. They help with grading, advising, in-class exercises and hands-on learning opportunities, and outside the classroom interactions. In general, teaching assistant positions are given to early-stage doctoral students to introduce them to the rigors of teaching and advising.

All faculty and instructors teaching at the iSchool are required to request student evaluations of their courses through the University's Office of Measurement and Evaluation of Teaching (OMET). These assessments, conducted confidentially and in-class, garner student ratings and comments that provide faculty with essential, timely feedback on the effectiveness of the course and the teaching methods. OMET results are provided to the Dean and relevant Program Chair.

All iSchool faculty members must participate in the School's Peer Review of Teaching (PRT) scheme, to ensure continuous improvement and consistency in course delivery. Tenure stream faculty are reviewed three times prior to tenure, while tenured faculty must undergo the process approximately every four years. Teaching fellows undergo PRT for each course they develop and/or teach.

Peer Review of Teaching Process					
	Request Student Evaluation of Courses	**Submit Student Evaluations, both OMET scores and all students' comments**	**Submit Full Dossier to SIS PRT Committee**	**Update Dossier**	**Undergo Peer Review of Teaching**
Tenured Faculty	Every course	Every course (to Dean)	Every 4 years; update OMET evaluations and student comments every year	Annually	Every 4 years
Tenure-Track Faculty	Every course	Every course (to Program Chair and Dean)	2nd year	Annually	2nd, 3rd and 5th years
Non-Tenure-Track Faculty	Every course	Every course (to Program Chair)	Upon request	Annually	At least every 4 years
Adjuncts	Every course	Every course (to Program Chair)	Upon request	Each time a course is taught	At least every 4 years
Visiting Faculty*	Every course	Every course (to Program Chair)	Upon request	Upon request	Upon request by Program Chair
Teaching Fellows*	Every course	Every course (to Program Chair)	Upon request	Upon request	Upon request by Program

					Chair

*If teaching on a continuing basis, they will be reviewed as part of the PRT process.

The PRT calls for the faculty member to prepare a substantial dossier for a course of their choosing, which must be accompanied by a statement of the faculty member's teaching goals and philosophy. The dossier is then evaluated by a standing PRT committee. Results of the PRT process are submitted to the Dean and considered in the promotion and tenure processes. Perhaps more importantly, this process provides expert feedback from those with many years of experience in teaching in a professional degree program.

In recent years, several faculty and adjuncts have been recognized for their teaching innovations or excellence. The WISE consortium offers an award to faculty to recognize their online teaching innovations and excellence. In 2011, Ellen Detlefsen and Adele Barsh were recipients; Mary Kay Biagini, Bernadette Callery, and Ellen Detlefsen were honored in 2008; and Ellen Detlefsen received the award in 2007. Leanne Bowler received the 2012 ALISE/Pratt-Severn Faculty Innovation Award, which is designed to "identify innovation by full-time faculty members" … "in incorporating evolving information technologies in the curricula" of accredited MLIS programs. For her proposal, Bowler described several innovative teaching practices that she implemented in her course on Technology in the Lives of Children and Youth. These technology-based learning activities were designed to facilitate students investigating the use of new technologies, determining how libraries can use technology to enhance the traditional mission of promoting literacy, and evaluating how technology effects young people's cognitive and social development.

A grant from the Provost's Advisory Council on Instructional Excellence has supported the "Information Professionals and Student Interactions" project supervised by Christinger Tomer, Associate Professor, and Susan Alman, Director of Distance Education and Outreach. The goal of the project is to produce video presentations of alumni discussing their professional experiences and providing specific advice on theoretical topics and fields of practice covered in the LIS 2000 (Understanding Information) course. Students in the course will then have the opportunity to interact with the alumni guest speakers through asynchronous Blackboard discussion forums. This project will help current students to develop professional insights and skills beyond the traditional classroom experience.

At the iSchool, great efforts are made in preparing future educators to be effective teachers as well. All doctoral students in the LIS program are required to take a teaching practicum (with a faculty advisor) and the University's instructional design course. The practicum allows the doctoral student the opportunity to be involved in curriculum design and instruction in preparation for an academic career. Doctoral students have become more active in teaching with faculty, as well as designing and teaching courses on their own. For example, several doctoral students have worked with faculty in teaching existing courses and then progressed to designing and teaching their own courses on specialist topics as Summer term electives for the APRM specialization. An added bonus is that the master's students learn a lot more about doctoral students and their research agenda, enriching the MLIS curriculum in significant ways. All doctoral students are required to take the LIS 3000 seminar, Introduction to Doctoral Studies, which is now focused on "Academic Culture and Practice." This unique course stresses not just the principal responsibilities of teaching, research, and service, but it orients students to the

changing nature of the modern university. Richard Cox will argue the importance of such a course when he presents a paper "The most important question of all: How do we prepare the next generation of faculty in LIS and iSchools?" in the Controversies in LIS Classroom section of the 2013 ALISE Conference.

Faculty members are advocates of demonstrating a synergy between their research and teaching. Some courses, at both the masters and doctoral levels, are designed both to provide basic and advanced education in the requisite knowledge in the information professions and to assist in research projects. Richard Cox, for example, has edited two special issues of professional journals comprised of student papers from MLIS classes in the APRM area. Christinger Tomer incorporated the results of his return on investment in libraries (ROI) research into his introductory information technology coursework, while Daqing He features his research (as well as the research of others) on cross-lingual information systems into his coursework on information retrieval.

Support for Research

The School regularly provides student assistants (GSRs) to support a faculty member's research-related projects. This provides invaluable experience to the students, as they gain research skills and an in-depth knowledge of the subject area. It also provides the faculty member with critical and competent assistance in several key areas including proposal development, programming or methodological tasks, and literature review.

Each year, the Dean allocates financial and physical resources to support research projects within the School. Research development funds can be used to support travel to conferences, student research assistantships, and purchases of equipment, for example. There are also designated travel funds for each faculty member, to permit them to attend and participate in conferences and professional development opportunities that will benefit their research or curricular activities. Faculty members can also submit special requests to the Dean for additional travel funds as necessary to enable participation in important conferences where they are presenting their work.

Several research projects have benefitted from more substantial support in terms of lab space or equipment purchases. In order to foster a team-approach to research, several spaces throughout the iSchool have been designated as specific lab spaces including the Usability lab, the Information Assurance lab, and the Information Retrieval, Integration and Synthesis lab, under the direction of Daqing He.

The success of these efforts may be seen in the number of grant awards and recognitions recently extended to the program faculty. A complete list is included in Appendix ***FAC 2***, but some of the highlights include:

- Assistant Professor Leanne Bowler was successful in acquiring funding from the Central Research Development Fund to support a pilot study to examine the efficacy of design-based research methods in revealing adolescent metacognitive thinking during the information search process. Even though adolescents have a vast number of information resources at their fingertips, they are – according to the literature – only adequate information seekers and in fact could use some guidance in terms of best practices. By creating a framework for investigating

adolescent metacognitive knowledge during the information search process, Bowler aims to clarify the processes through which young people find and assess information.

- Associate Professor Daqing He received a $49,983 grant from the National Science Foundation's Division of Information & Intelligent Systems to explore the emerging phenomenon of public academic information resources on the social web. The project aims to develop an assessment and association identification framework for online academic information, to facilitate researchers in accessing, organizing, utilizing, and exchanging all types of academic information.

- Associate Professor Mary Kay Biagini and Rebecca Morris (PhD 2011) were awarded a grant from the American Association of School Librarians (AASL) to investigate how school librarian preparation programs incorporate various national standards into their curriculum and identify best practices.

- Former LIS faculty, Assistant Professor Cory Knobel and Professor Geoffrey Bowker were awarded a $198,506 grant (while at Pitt) from NSF's Office of Cyberinfrastructure, "Evaluating Best Practices in Collaborative Cyber-Science and Engineering." This project will result in a socio-technically informed set of outcome-based best practices and evaluation criteria for large-scale cyber-science efforts. The goal is to create a framework to transform cyber-enabled grand challenge communities, improve the ability to identify and assess categories of project impact across levels of scale, and guide future development of appropriate cyberinfrastructure tools.

Building a Vibrant and Collaborative Environment

Teaching and research support are buttressed by the School's efforts to create a vibrant working and learning environment. The School hosts dozens of colloquia each year, addressing leading edge topics of interest to faculty and students in the iSchool. There are subject-specific lecture events in Information Assurance, Digital Libraries, Telecommunications, Archives, and the impact of technology on scholarship. One series, the iSchool Colloquium Series, offers a panoply of expert researchers and speakers on topics ranging from social networking and online collaboration to organizing literary works. In the future, the School will host the Bernadette Callery Memorial Lecture Series, which will address current issues and concerns in the areas of archives and records management.

A distinctive feature of the iSchool is the weekly "Brown Bag" lunch hosted by the Dean to provide an informal venue for discussion of research areas or teaching issues of interest to faculty. Topics may be suggested by any faculty member, who then introduces the discussion. These regular meetings provide an excellent opportunity for informal interaction and sharing of multidisciplinary perspectives on emerging fields of interest across the School. The iSchool also hosts regular workshops on various research topics within the school, to enable faculty and students to learn about their colleagues' work and teaching interests. An underlying benefit of all these activities is to foster cross-disciplinary and cross-program research programs. A complete list of colloquia and workshops for Fall 2012 is included in Appendix ***SCH 9***.

III.3 The school has policies to recruit and retain faculty from diverse backgrounds. Explicit and equitable faculty personnel policies and procedures are published, accessible, and implemented.

At the iSchool, diversity is defined in two ways. One is to have faculty from a variety of professional and scholarly backgrounds covering the multiplicity of sectors and specialties of the information professions. At present the LIS program faculty have research expertise and interests in academic and research libraries, archives and records management, children's and youth services, collection development, cyberscholarship and digital humanities, digital libraries and digital stewardship, health resources and services, information behavior and information literacy, information retrieval, intellectual property, library management, professional education, school libraries, science and technology studies, and social informatics. In addition to regular faculty, a broad group of librarians, archivists, and other information professionals teach on the program, supplementing and strengthening coverage to ensure a rich and comprehensive curriculum. Adjunct appointments are reviewed by the faculty and approved by the Provost's Office, based on their qualifications to teach and direct graduate study at all levels in accordance with the objectives of the degree programs. The use of Teaching Fellows also adds to the diversity of instructors in the program in terms of disciplinary background, professional experience, or research interests.

Another definition of diversity is the more traditional, meaning recruitment and retention of faculty from underserved populations. Here, the University and the School have devoted substantial resources to attract faculty from such demographic groups. The University of Pittsburgh Office of Affirmative Action, Diversity, and Inclusion (OAADI) has overall responsibility for providing leadership, resources, coordination, and oversight for the University's voluntary diversity initiatives as well as ensuring equal opportunity and compliance with related governmental requirements. The University has developed a comprehensive set of guidelines and resources to increase the success rate in attracting diversity candidates for faculty positions. All position announcements state that the University of Pittsburgh is an Equal Opportunity, Affirmative Action employer and strongly encourages women and candidates from under-represented minorities to apply. This information is available at http://www.hr.pitt.edu/diversity. Through the OAADI, the iSchool has expanded the advertising for faculty positions to include publications and Web resources specifically targeted to diverse populations.

While these efforts have been pursued with commitment and energy, the School and the University would like to see an increase in the number of faculty from underrepresented groups. In 2012, the School successfully recruited a new female faculty member in the Information Science and Technology program, the first since Toni Carbo retired in 2009. Unfortunately, there is an insufficient number of diversity candidates for faculty positions. This is true in all of the disciplines encompassed by the iSchool, and this is the underlying reason for the creation of the innovative iSchool Inclusion Institute (i3), a multi-year diversity initiative funded by the Andrew W. Mellon Foundation and hosted by the School of Information Sciences on behalf of the iSchools community. The purpose of the i3 program is to increase the number of students from underrepresented groups in iSchool graduate programs and to encourage them to consider careers in academia. It is imperative to increase the diversity of the student body and faculty, to better represent the people in – and impacted by – the Information Professions.

The increased efforts to attract diversity candidates for faculty positions have seen some success. The school has seen an increase in the number of diversity candidates applying for our positions; however the number is still statistically insignificant. It is hoped that enhanced and directed advertisements will better inform candidates from underrepresented groups about the opportunities available to them at the iSchool. The potential increase in the number of candidates, due to programs such as the i3 project, will increase the likelihood of diversifying the Information Science disciplines in years to come.

To ensure that our community is as inclusive as possible, the University created the OAADI, to provide the following services:

- coordinates and facilitates the development and implementation of equal opportunity, nondiscrimination, and diversity policies, procedures, and guidelines for the University;
- monitors progress in implementing diversity initiatives and realizing objectives for enhancing inclusion;
- prepares institutional and governmental reports including, but not limited to, the University's affirmative action plan;
- conducts studies and undertakes research projects;
- participates in a variety of training events;
- handles or coordinates the handling of internal complaints of discrimination or discriminatory harassment;
- serves as a link between the University and other institutions, governmental agencies, or community groups with related concerns; and
- maintains the centralized job posting website for faculty positions

The policies administered by this group are located at http://www.cfo.pitt.edu/policies/procedure/02/02-02-15.html

III.4 The qualifications of each faculty member include competence in designated teaching areas, technological awareness, effectiveness in teaching, and active participation in appropriate organizations.

The program faculty determine the teaching responsibilities based on areas of expertise, research interests, and prior experience. Permanent faculty teach most of the core courses, while adjuncts and teaching fellows offer specialized courses or electives. As an example, the following table indicates the recent instructors for core and required courses – this list does not include Special Topics courses, which are addressed in a separate section:

Faculty	Competence/expertise	Courses Taught
Biagini	Lead faculty for School Library Certification program	LIS 2323, 2327, 2774
Bowler	Lead faculty for Children and Youth specialization	LIS 2322, 2324, 2360
Cox	Lead faculty for APRM specialization	LIS 2214, 2220, 2222, 2223, 3000
Currier	Ethics, diversity, copyright law, management and leadership	LIS 2000, 2005, 2184, 2194, 2537, 2700

Detlefsen	Lead faculty for Health Resources and Services specialization	LIS 2000, 2585, 2586, 2587
He	Lead faculty for Digital Libraries and Information Technology specializations	LIS 2002, 2600, 2658, 2670; INFSCI 2140 Information Storage and Retrieval
Langmead	Archives and records management, digital humanities	LIS 2220, 2224, 2230
Mahoney	Lead faculty for Reference Resources and Services specialization	LIS 2000, 2005, 2324, 2500, 2544
Oh	Information visualization, metadata	LIS 2005, 2405, 2407
Tomer	Lead faculty for Information Technology and Digital Libraries specializations	LIS 2000, 2005, 2500, 2600, 2635, 2670

A complete list of courses and instructors is included in Appendix ***FAC 4***.

As part of a school with two technology-related academic programs, awareness and utilization of technology is omni-present. However, faculty are very careful to ensure that technology, and its exponential advances, does not overshadow the core tenets of LIS education. When appropriate, faculty incorporate developments in technology into the classroom but do not ignore the foundational skills and knowledge needed by professionals in the world's libraries, archives and schools.

The School offers a core course addressing technology in information centers and libraries. LIS 2600 (Introduction to Information Technologies) provides a primer on databases, digital documents, and digital library technologies. This course is most often taught by Christinger Tomer and Daqing He, who incorporate numerous "hands-on" components to the class, including separate lab experiences. Obviously, the two specializations in Information Technology and Digital Libraries have to feature storage and retrieval technologies to the fullest extent.

The faculty are very aware that, as technology permeates the fabric of society, it must be presented in the core and specialization curricula in order to prepare graduates to deal with the benefits and challenges associated with it. Therefore, as appropriate, they incorporate discussion of – and experience with – various technologies and tools into their courses. For example, LIS 2184 (Legal Issues in Information Handling: Copyright and Fair Use in the Digital Age) looks at technology-enabled strategies and developments such as Open Access and Creative Commons. LIS 2587 (Applications in Medical Informatics) explores the applications of information technology in areas such as hospital information systems and telehealth. In LIS 2633 (Technology in the Lives of Children and Youth), students examine the effect of media on information behavior, safety, and information/media literacy instruction in children's libraries.

Teaching effectiveness is ensured through a number of evaluation methods which permit the School to gather input from a variety of audiences. First, all teaching faculty are required to utilize the Office of Measurement and Evaluation of Teaching's course surveys to garner student opinion about the course and the instructor. The results of this confidential and in-class survey are reviewed by the Dean and the Program Chair. Second, all faculty are mandated to participate in the School's Peer Review of Teaching process, which provides advice and reviews from a committee of faculty in the iSchool with regards to pedagogical and presentation elements utilized by teaching faculty. And finally, the Program Chair

performs a grade review for each student at the end of each academic term. This thorough review of every grade issued within the program is carried out to provide a "snapshot" of student performance each term. If inconsistencies arise, they are addressed at the following faculty meeting. For example, this grade review process revealed issues with content in an offering of LIS 2005; the faculty then reviewed the course and its learning objectives. This resulted in a significant revision in the course syllabus and delivery at the time of the next offering.

Finally, the University calls for submission of learning outcomes assessments each year. This entails the program faculty reviewing a core course and the associated assignments to ensure that stated learning objectives are met.

The faculty feel that the OMETS and PRT provide a systematic series of evaluations of teaching and teaching effectiveness. The Learning Outcomes assessment provides a longer-term view of the successes and challenges of a course, which reflects on the teaching involved. The end-of-term grade review offers a spot-check of teaching effectiveness. Working together, these evaluation efforts ensure that students are receiving the best instruction possible.

In order to remain current on developments in the field, as well as evolving research around LIS education and the Information Professions, faculty are encouraged and supported in their active participation in scholarly, research and professional development organizations. Faculty travel funds, allocated annually, may be used to attend professional or academic conferences. The Appendix ***FAC 1*** (faculty curricula vitae) outlines each faculty member's participation in such organizations.

III.5 For each full-time faculty member the qualifications include a sustained record of accomplishment in research or other appropriate scholarship.

As members of the faculty, individuals are encouraged and recognized for their publication and research efforts, which are monitored through their annual reports to the Dean. Successful publication records, as well as research, are key elements of the tenure and/or promotion case. The faculty evaluation model incorporates the faculty members' publication record for the year, as well as efforts in proposal writing. As the research interests of the program faculty are extremely diverse, the venues for publication are also wide-ranging and include academic peer-reviewed journals, books, conference papers, and professional development articles for Information Professionals.

From 2010-2012 (to date), almost 300 publications were created by members of the iSchool faculty. A complete list of publications, by year, is included in Appendix ***FAC 3***. In addition to publications, faculty are supported in the creation of research proposals to a variety of funding agencies including the National Science Foundation, the National Institutes of Health, the Institute for Museum and Library Services, and corporate/private foundations including Google and the Andrew W. Mellon Foundation. A complete list of research proposals submitted as well as those funded from 2006-2012 will be provided during the on-site visit of the External Review Panel.

In addition, iSchool faculty serve on numerous conference program committees and editorial boards, this is an indication of their standing within the field. In addition, many review manuscripts for journals

and conferences (i.e. iConference and ASIS&T). The many contributions of the faculty to conferences, publications, and organizations can be seen in their CVs (Appendix ***FAC 1***). A selected sample of such service activities is listed here:

Faculty	Conference Program Committee	Editorial Board	Reviewer for
Bowler	ASIS&T, ALISE		National Science Foundation, ALISE Garfield Dissertation Award
Corrall	European Conference on Digital Libraries, Online Information Asia-Pacific Conference	Australian Academic & Research Libraries, Education for Information, Information Research, New Review of Academic Librarianship	Arts & Humanities Research Council; Higher Education Academy; Irish Research Council for the Humanities & Social Sciences; Joint Information Systems Committee; Leverhulme Trust
Cox		Library & Archival Security; Archival Science, Journal of the Society of Archivists (UK), and Archives & Manuscripts (Australian)	
Detlefsen		Journal of the Medical Library Association, Journal of Consumer Health on the Internet, Journal of Electronic Resources in Medical Libraries, Hypothesis: The Journal of the Research Section of the Medical Library Association	
Griffin		International Journal of Digital Libraries Advisory Board, Library of Congress National Digital Strategy Advisory Board	European Commission Seventh Framework Programme; Canadian Foundation for Innovation; Los Alamos National Library; Taiwan Digital Archives Program
He	European Conference on Information Retrieval, ACM SIGIR Annual Conference, iConference, ECIR, ASIR	Aslib Proceedings, Internet Research	
Larsen	Joint Conference on Digital Libraries	Portal: Libraries and the Academy	National Science Foundation

III.6 The faculty hold advanced degrees from a variety of academic institutions. The faculty evidence diversity of backgrounds, ability to conduct research in the field, and specialized knowledge covering program content. In addition, they demonstrate skill in academic planning and assessment, have a substantial and pertinent body of relevant experience, interact with faculty of other disciplines, and maintain close and continuing liaison with the field. The faculty nurture an intellectual environment that enhances the accomplishment of program objectives. These characteristics apply to faculty regardless of forms or locations of delivery of programs.

In Standard III.3, the diversity of academic backgrounds of program faculty was delineated. The faculty have advanced and terminal degrees in computer science, digital humanities, education, history, information systems, library and information science, science and technology studies. Three fulltime faculty members (Biagini, Cox, and Currier) received their Doctor of Philosophy degrees from the University of Pittsburgh; other full-time faculty members received Ph.D. degrees from institutions such as Case Western, Toronto, McGill, Columbia, and North Carolina at Chapel Hill.

Faculty research interests are wide-ranging, reflecting a diverse group of research areas in the Information Sciences. A partial list of these research specialties is as follows:

- Academic librarianship
- Archival ethics and accountability
- Archives management
- Collection development in digital environments
- Copyright and fair use
- Cyberscholarship
- Digital humanities
- Health information behavior and health education interventions
- Information behaviors, particularly in the digital environments
- Information design/design methodology
- Interactive system design and adaptive Web search system design
- Metadata
- Professional education
- School librarianship
- Social information systems
- Strategic management
- Web-based systems for representing, retrieving, extracting and disseminating information

These research areas are supportive of, and feed into, the teaching areas within the program. Faculty teach mostly within their disciplinary expertise (with the exception of the core courses). Core courses are taught by permanent faculty with an interest and background in the subject; electives and specialization-related coursework meshes almost seamlessly with faculty research interests. Biagini and

Bowler teach exclusively in the area of librarianship for children and youth, while Cox and Langmead teach in the archives area as their expertise lies in this areas. Tomer and He, in addition to core courses, teach in the information technology and digital libraries areas, which matches their research agenda. Detlefsen teaches core courses, but has substantial teaching responsibilities in the health informatics and resources areas – melding her research and teaching into this significant area of librarianship. Faculty members Mahoney and Currier find great satisfaction in teaching core courses, reflecting their experience in libraries and information centers; Mahoney is also lead faculty for the Reference Resources and Services specialization, while Currier specializes in legal issues in information handling. Electives and special topics courses are developed in response to a faculty member's interest in the area, or to direction from advisory groups advocating inclusion of such material.

In fact, many faculty members have a significant amount of practical experience in their various fields. Elizabeth Mahoney has more than 20 years of experience as an academic librarian at the University of Pittsburgh. Sheila Corrall served as chief cataloger for a public library system, a senior manager in the British Library, and as director of library, information and academic services at the Universities of Aston, Reading, and Southampton. Richard Cox worked professionally as an archivist at New York State Archives and Records Administration, Alabama Department of Archives and History, the City of Baltimore, and the Maryland Historical Society. Leanne Bowler served as librarian at the Montreal Neurological Hospital and Institute and the Reginald J.P. Dawson Library in Quebec. James "Kip" Currier served as the Manager of the Carnegie Library of Pittsburgh's Woods Run Library, as Administrator in Reference and Museum Services at the Sandusky (OH) Library, and as the Adult Services Librarian at the Sunnyvale (CA) Public Library. Christinger Tomer was a reference librarian at both the Cuyahoga County Public Library and the U.S. Naval War College during his early career; he then served as Director of the Library and Learning Center at Notre Dame College in South Euclid, Oh. This practical experience brings a richness to the curriculum, reflecting the real-world needs of information users in schools, libraries, universities and archives. Professional experience of other faculty members is documented in their CVs

Faculty gain experience, if they have not had the opportunity to do so before, in academic planning as part of this program. Core curricular elements are discussed and determined by the faculty as a group to ensure a good fit with the program and the needs of the students. New faculty are introduced to the process through monthly faculty meetings. They may access the resources of the University's CIDDE unit for further guidance in course development. As they grow into their academic role, they will take on responsibility for program development. For example, the children and youth specialization was completely revamped by Leanne Bowler over a number of years to move this storied program into areas of critical importance to generations of digital natives. Brian Beaton has been working with APRM faculty on the revision of the archives program of study to better represent the core nature of the specialization in contemporary settings and to adjust the curriculum to account for faculty changes.

In order to ensure that their research and teaching activities remain of relevance in light of the evolving nature of the professions and the Information Sciences, faculty interact with professional and academic organizations extensively. Below is a selected list of organizations each faculty member is involved with:

Biagini	Pennsylvania School Library Association, American Library Association
Beaton	Society for Social Studies of Science, Society for the History of Technology
Bowler	ALISE, ASIS&T

Corrall	ALISE, American Library Association; Elected Fellow of The Library Association (now CILIP), the Chartered Management Institute, and the Royal Society for the Arts; Past President and Honorary Fellow of the Chartered Institute of Library and Information Professionals
Cox	Mid-Atlantic Regional Archives Conference, Archival Educational and Research Institute, Society of American Archivists, ALISE
Currier	American Library Association, ASIS&T, Special Libraries Association
Detlefsen	Medical Library Association
Griffin	Library of Congress National Digital Strategy Advisory Board
He	ACM SIGIR, Association of Computational Linguistics, ASIS&T, IEEE Computer Society
Langmead	Society of American Archivists, College Art Association, Visual Resources Association
Mahoney	American Library Association

New faculty find a supportive environment that provides the tools and support needed to grow into the role of an iSchool instructor and researcher. Financial support is provided for equipment, student and research assistance, lab development, and travel to professional conferences, which enables faculty members to build rigorous research programs. Their teaching is supported through assignments of teaching assistance, technology, and instructional design services and advice. Their activity in service to the University, the School and the field are supported and recognized.

III.7 Faculty assignments relate to the needs of a program and to the competencies and interests of individual faculty members. These assignments assure that the quality of instruction is maintained throughout the year and take into account the time needed by the faculty for teaching, student counseling, research, professional development, and institutional and professional service.

The standard teaching load is two courses in two terms of the academic year. However, teaching loads can be adjusted to facilitate research (with a subsidy from the funding agency), to permit a special service project, or to permit faculty to teach additional courses in the third term. Faculty members teach core courses regularly, whether in the primary MLIS program or in one of the specializations. These assignments are made to ensure that the quality of instruction for the introductory courses is consistently maintained, thus promoting the success of the students. It also provides faculty with the opportunity to interact meaningfully with new students, permitting them to better understand the learning and social needs of students early on in the program. Such exposure enables faculty to meaningfully revise programs of study, to address admissions criteria, and to design learning experiences appropriate to the student body.

Faculty also have a choice to design and teach courses outside of the core or required courses. This permits them to share their research interests and passions with students. In many cases, faculty develop new courses which reflect current developments and challenges in the field – as perceived from the literature and professional conferences. If faculty develop new courses, such efforts are reflected in their teaching load and in the annual evaluation by the Dean. Such efforts are also considered by tenure and promotion committees as separate from teaching an established course.

Advising students is changing as the student body changes in terms of educational and professional background, age, and expectations. As revealed in Standard IV, students in the iSchool's MLIS program are now younger and many lack practical experience. This results in students who need more guidance in designing an appropriate course of study – they may need assistance even to clarify their career goals. In addition, their expectations of the advising relationship are often different from that of the more mature student. Faculty have to incorporate different methods of communicating and advising students. Although students are permitted to self-enroll for classes, the program faculty encourage students to discuss the program of study throughout their terms of study. Incoming MLIS students participate in group orientation and advising before the start of their first term. Then, they may request face-to-face appointments, phone meetings, Skype meetings, or e-mail discussions with their faculty advisor about their course selection and performance.

To permit faculty to maintain a balance between teaching and advising (and their other responsibilities), advising loads are adjusted with the aim of achieving an equitable distribution of effort, while also trying to assign students to faculty whose expertise matches the chosen specialization or expressed interests of the student. Students are assigned to specific faculty based on their choice of specialization or career and academic interests as expressed in their statement of interest in the admission application. For example, students who select the Children and Youth specialization are assigned to Leanne Bowler, while those who choose the Digital Libraries or Information Technology specializations are advised by Daqing He or Christinger Tomer. An applicant who enrolled in the Individualized option would be assigned to faculty whose teaching or research interests (or previous professional experience) match the sector of librarianship sought after by the applicant. Program administrators and student services specialists are trained and made available to help with routine inquiries, while also reviewing course self-selections to identify potential errors in scheduling that will delay time to degree. Efforts to assist with advising are also bolstered with significant Web-based resources including student and public sites dedicated to explaining policies and procedures, course planners and course descriptions, schedules, and advisories regarding pre-requisites.

That being said, the bulk of advising still falls to faculty members, particularly those who advise in one of the specializations with significant enrollments. The following table shows faculty advising loads over a seven-year period.

Fall Term (2006-2012)

	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012
LIS Average Advising Load:	28.00	28.53	32.13	34.85	30.14	30.08	52.44
LIS Active faculty:	13	15	15	13	14	12	9

This table shows the advising load for the permanent LIS faculty from Fall 2006 through Fall 2012. The average load considers all actively-enrolled MLIS students in that term; this may include students who were not registered for any courses in that particular term, but haven't resigned from the program. It should be noted that the increase in the average load is directly related to the declining number of faculty in the program. The Fall 2012 Term, which is detailed below, does not include Professors Corrall and Beaton, who were new to the program and who will be assigned advisees in the future. Thus, we can expect the average advising load to decline in Fall 2013, in part due to an increased number of faculty members. This information reflects MLIS advisees only: it does not include doctoral advisees or students from other programs in the iSchool. In particular, Professor He has a joint appointment in the

Information Science and Technology Program and serves as advisor to many students in the other academic program.

Advisor	Fall 2012 Advisees
Biagini, Mary Kathryn	48
Bowler, Leanne Jane	57
Cox, Richard J	109
Currier, James David	56
Detlefsen, Ellen Gay	52
He, Daqing	29
Mahoney, Elizabeth T	45
Oh, Jung Sun	8
Tomer, L Christinger	68

The chart above provides a snapshot of the number of MLIS advisees for each permanent faculty member for Fall 2012. Again, this does not include students from other degree programs, or doctoral students. It should be noted that Professor Cox's advising load included students previously assigned to the deceased Professor Callery and that several faculty members absorbed advisees previously assigned to Dr. Alman upon her retirement.

III.8 Procedures are established for systematic evaluation of faculty; evaluation considers accomplishment and innovation in the areas of teaching, research, and service. Within applicable institutional policies, faculty, students, and others are involved in the evaluation process.

As described in more detail in other sections, the School mandates the following evaluations of faculty effectiveness:

Faculty Annual Review (Standard III.2)
Peer Review of Teaching (Standard III.2)
OMET Surveys (Standard III.2)
Promotion and Tenure (Standard V.I.)

(See ***FAC 5***, ***FAC 6***, ***FAC 7***, and ***FAC 8*** for guidelines and examples).

These methods involve students, faculty colleagues, the Dean and Associate Dean, and the Provost of the University in the regular and long-term evaluation of faculty achievements. The combination, and consistent use of all of these procedures, produces the feedback necessary for faculty development and success in achieving promotion and tenure.

Standard IV. Students

IV.1 The school formulates recruitment, admission, financial aid, placement, and other academic and administrative policies for students that are consistent with the school's mission and program goals and objectives; the policies reflect the needs and values of the constituencies served by a program. The school has policies to recruit and retain students who reflect the diversity of North America's communities. The composition of the student body is such that it fosters a learning environment consistent with the school's mission and program goals and objectives.

At the School of Information Sciences, there are clearly defined policies for admission, financial aid and administrative activities pertaining to the recruitment and retention of students. These are designed, and reviewed regularly, to ensure the success of students and that the policies are consistent with the goals of the School and the academic programs. At the University of Pittsburgh, there are minimum criteria for admission to any graduate academic program: individual units must meet, and may exceed, these minimum requirements. In the School, the program faculty review the admissions and financial aid requirements and policies, considering and voting upon any changes. The changes are then presented to the SIS Council, which helps to ensure compliance and consistency across the School's many programs. The administrative policies for students' enrollment, grading, and progress-to-degree are determined by the program faculty and clearly outlined on the School's Web pages. In addition, new students are provided with an orientation experience and a Graduate Student Handbook which details the critical policies and procedures. The Handbook can be found at http://www.sis.pitt.edu/~sisint/. In general, these policies can be categorized into recruitment/admissions, financial support, academic/course-related, and completion.

Recruitment/Admissions Policies for the MLIS Program

The School designs recruitment plans for each of the degree programs, to be implemented from August-December of each academic year. These plans are included in the Appendix ***STU 2***. The plans are reviewed thoroughly each year to determine their effectiveness in increasing the School's applicant pool. The review then facilitates decision-making for the recruitment efforts for the following year. Primarily the plans address advertising, direct mail, attending graduate and recruiting events, and outreach to specific target audiences. The plans are developed by the iSchool's recruiting staff and reviewed by the Manager of Student Services, the Director of Administration and the Director of External Relations.

Admissions policies/criteria for the MLIS program are stated at http://www.ischool.pitt.edu/lis/degrees/mlis-admissions.php. Students must have earned a

Bachelor's degree from an accredited college or university with a minimum scholastic average of a B grade (3.0 on a 4-point scale).

The University's Affirmative Action and Nondiscrimination Policy states that:
The University of Pittsburgh, as an educational institution and as an employer, values equality of opportunity, human dignity, and racial/ethnic and cultural diversity. Accordingly, the University prohibits and will not engage in discrimination or harassment on the basis of race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, gender identity or expression, disability, or status as a disabled veteran or a veteran of the Vietnam era. Further, the University will continue to take affirmative steps to support and advance these values consistent with the University's mission. For the complete policy, click here.

The applicant must submit an online application, official transcripts for all previous education, two letters of recommendation, the scores from the GRE or the Miller Analogies Test (unless an advanced degree has already been earned), a resume or CV, a statement of intent outlining academic or professional goals, and an application fee. The MLIS program has one Term of Entry, the Fall Term. The School's Web site identifies the appropriate deadlines for applications for admission and other documentation. International applicants must meet different deadlines (to allow for processing of visa and INS documentation) as well as admissions criteria regarding their abilities to undertake graduate study in English. This information is clearly spelled out on the iSchool's admission Web page at http://www.ischool.pitt.edu/admissions/.

Admission Deadlines for Domestic Applicants

Degree Program	Fall Term	Spring Term	Summer Term
MLIS	January 15th		
MLIS: Pitt Online	July 1st		
PhD LIS	January 15th		
MSIS*	July 15th	November 1st	March 15th
PhD IS	January 15th		
MST*	January 15th	September 15th	January 15th
PhD Tele	January 15th	September 15th	January 15th

*Rolling Admissions. However, priority consideration will be given to applications received by these deadlines.

For International Students Only

In order for the iSchool to be in compliance with the deadlines established by the Office of International Services (OIS), all international students must have their admission credentials and their proof of financial resources submitted far in advance, according to the term of entry. Meeting these dates will insure that all visa documents are issued by the INS to prospective international students in time for the beginning of each term's studies.

Deadlines for International Applicants

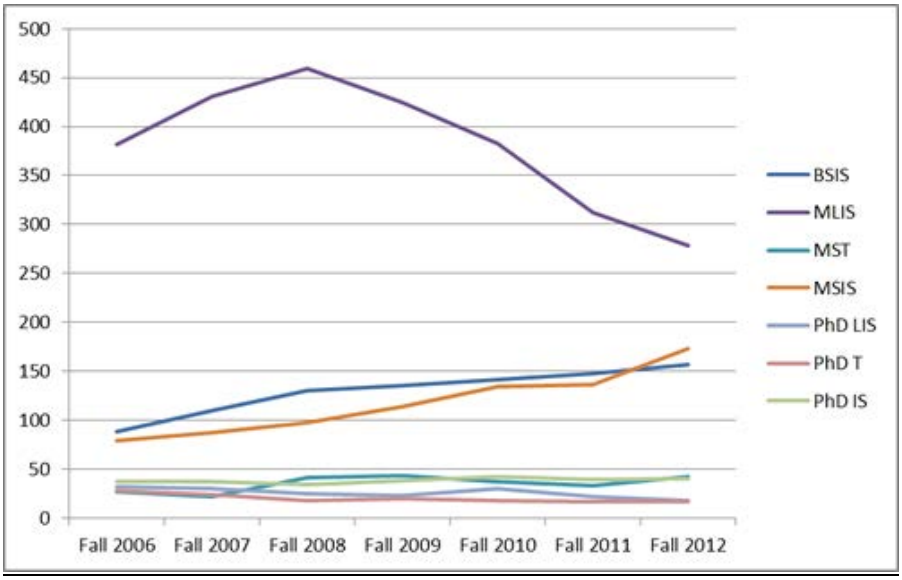
Term of Admission	iSchool Admission Application	Supplemental Form (Parts I and II, Proof of Financial Resources)
Fall	January 15th	June 15th
Spring	June 15th	October 1st
Summer	December 15th	March 1st

The iSchool's policy for English Language Proficiency states:
A minimum score of 550 (paper-based) or 80 (Internet-based) on the TOEFL is required for admission to the MSIS, MST, MLIS, PhD IS & TELE programs. [For the LIS PhD, the minimum scores are 600 (paper-based), 250 (computer-based) or 100 (Internet-based).] Students may choose to take the International English Language Testing System exam (IELTS) in place of the TOEFL. Students should receive a minimum result of Band 6.5 on the IELTS. [For the LIS PhD, the minimum requirement is Band 7.0.] Exceptions: International students who completed a degree at a regionally accredited college or university in the United States are not required to submit a TOEFL/IELTS score. Students from certain English-speaking countries are also exempt (see www.ois.pitt.edu for a list of exempt countries). Permanent residents are exempt. However, the School reserves the right to ask for TOEFL scores if deemed necessary for the evaluation of the application. Prior to registration, students with TOEFL scores of less than 100 (Internet-based), 600 (Paper-based) or less than Band 7.0 on the IELTS must take this additional test of English language proficiency: English Language Proficiency Test (the Michigan Test). If remedial courses in English as a foreign language are recommended, the student must complete the remedial course during the first two terms of study.

Recent revisions to the admissions policies include:

- The requirement to submit GRE scores for applicants to the Fall 2013 Term and beyond. This brings the MLIS admissions requirements in line with those of the other Master's programs in the School and those of other ALA-accredited MLIS programs in the United States.
- Applicants to the Archives, Preservation, and Records Management specialization must demonstrate the following in their personal statements – the equivalent of a year's experience in archives and special collections units, knowledge of the APRM field, and clear professional goals that can be supported by this academic program.
- In 2011, the faculty voted to limit the Terms of Entry to the Fall Term only. It was felt that it would provide the structure needed for a more coherent program of study for the students, and a more substantial peer support system, as the students would be travelling through the core courses as a de facto cohort. In addition, this facilitates scaffolding of learning in advanced courses. This was implemented for Fall 2012, so there are no evaluations or outcomes available to us about the successes or challenges in implementing this policy.

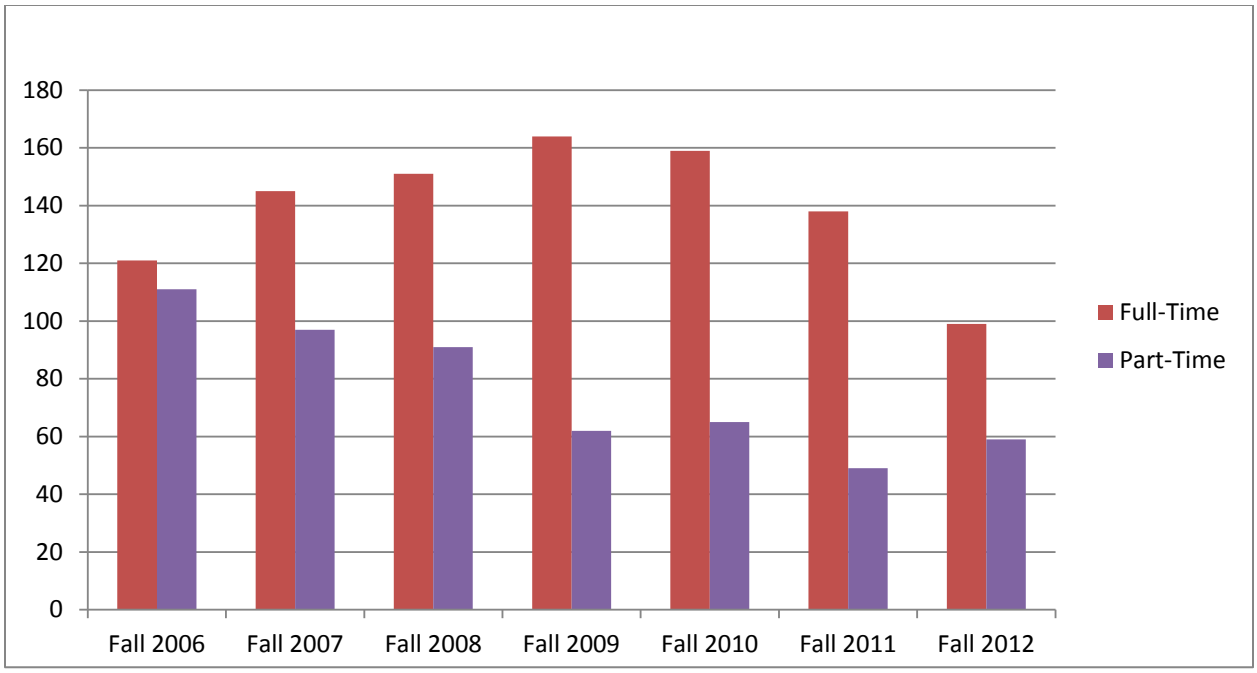
The MLIS Student Body at the iSchool – Changes over time



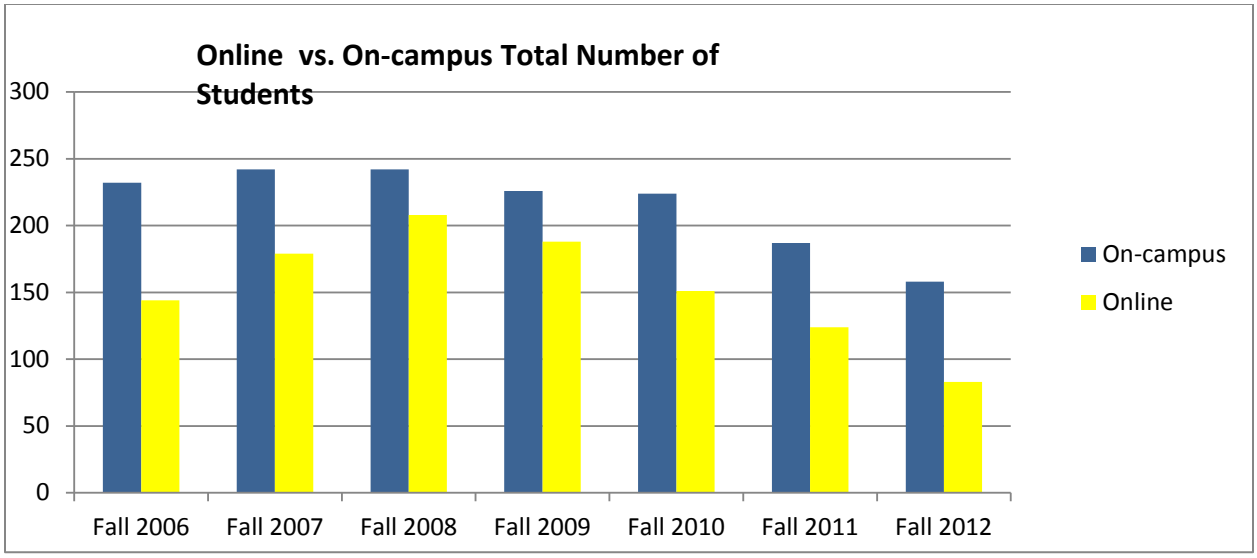
Total Enrollment at the School of Information Sciences, by degree program. Enrollment comprises both new and continuing students.

The iSchool is strategically right-sizing the enrollments across programs. The enrollments in the Information Science and Telecommunications programs declined after the dot.com bust in 2001. With the addition of the online MLIS program, more students were enrolled in the MLIS program due to increased capacity and to counterbalance the losses in other programs. With the judicious decrease in the number of MLIS students, increases in the number of students admitted to the Information Science and Telecommunications programs, the programs are approaching equity in terms of teaching and advising loads. The increased number of MLIS students, from 2006-2010, was particularly difficult on faculty. They were left with less time for research and/or service. The more even distribution of students across all degree programs should alleviate some of these challenges. As this is a relatively new endeavor, the results have not yet been evaluated.

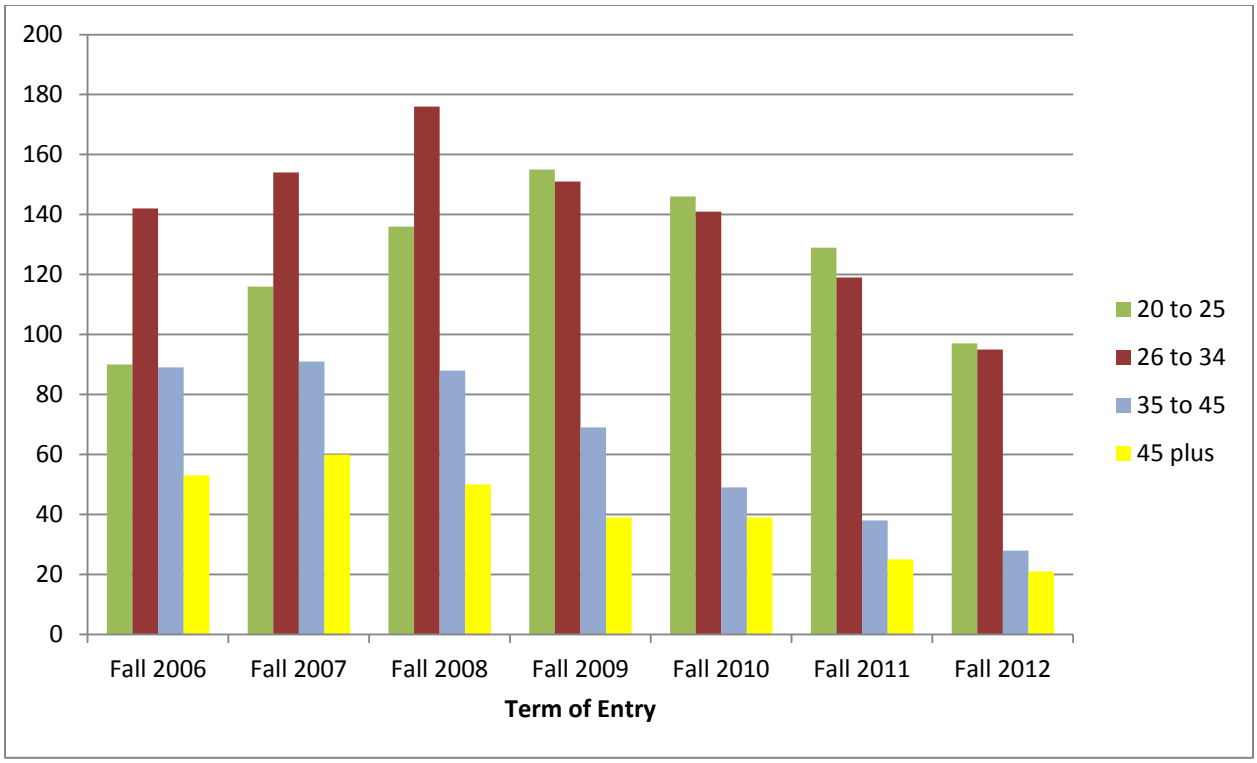
The economic decline has had its effects on the MLIS enrollments. The program has enrolled a higher proportion of full-time students in the on-campus program. The online program has seen a slight decline in enrollments. These effects are not unexpected given that there is little or no financial support (school or federal) for part-time study. In these times, with a less-than positive employment outlook in the Library and related fields, it would be an expensive proposition to study part-time with no financial aid.



MLIS On-campus enrollments, part-time versus full-time

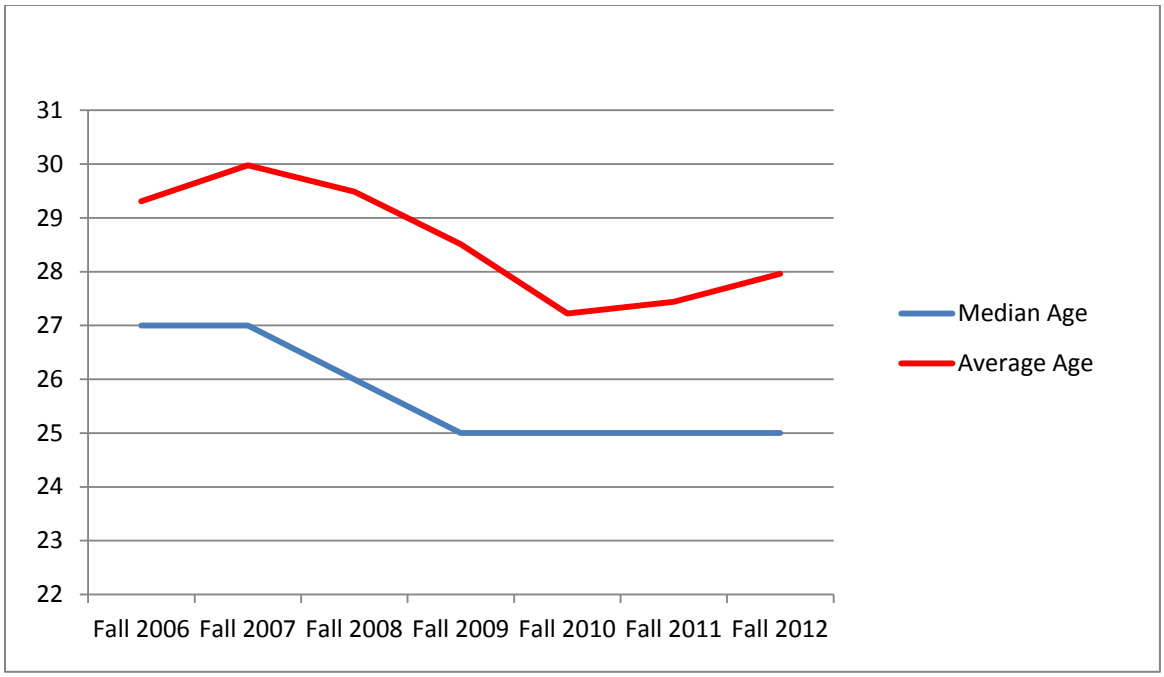


MLIS Online enrollments versus on-campus enrollments



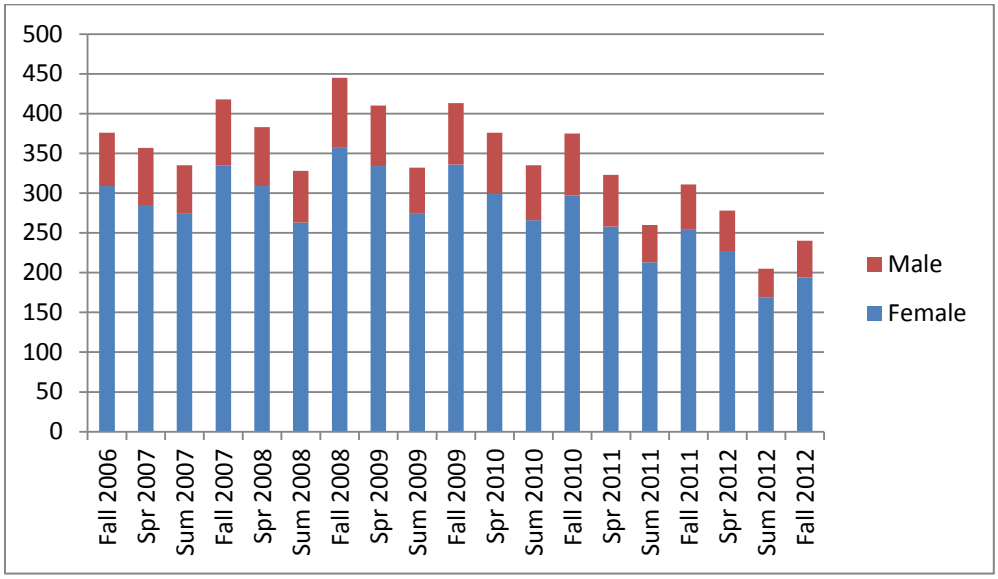
Age of MLIS Students, by Fall Term, from Fall 2006-2012

As can be seen in the chart above, there is a marked difference in the ages of students enrolled in the MLIS program over the timeframe of this study. The bar chart above indicates the severity of this change in the new student population. The Program is enrolling fewer students aged 35 and above. The number of students aged 20-25 has increased significantly from 2006 to 2012. This change has implications for the style of teaching, delivery methods, curricular elements, expectations of students, cohort-building, advising and offering meaningful co-curricular events. This shift has changed the classroom character and perceptions about "typical" students in the program. For many years, there was a significant cadre of 35+ students – many of whom were changing career. Now, the predominant group of students graduated from undergraduate programs within 2-4 years. These millennial-generation students have very different expectations of their learning experience – viewing themselves as customers, rather than passive recipients of knowledge, for example. They also come to the program with little or no experience in libraries or information centers – the iSchool has increased opportunities for such students to gain practical experience through the Partners Program, field experience courses, and alumni interventions.

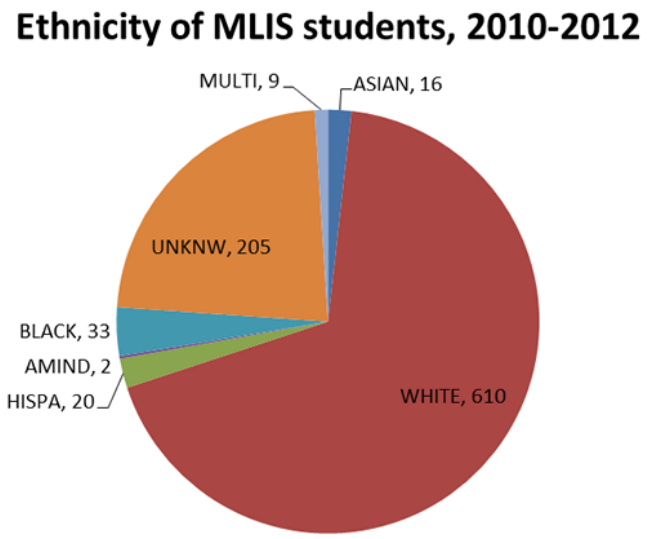


MLIS New Students Age, Fall Terms 2006-2012

Gender composition for this program has been relatively stable for the prior six years. The majority of students are female, which is not unusual in LIS programs. According to the ALISE 2012 Statistical Report, almost 80% of students enrolled in the ALA-accredited Master's program are female.



Gender Composition within the MLIS Program, 2006-2012



Unknown – ethnicity not identified by student
Multi – student indicated multiple ethnicities, not specific

As revealed in the chart above, the majority of the MLIS student body has self-identified as "White." This is a phenomena experienced by a majority of LIS programs. Again, according to the 2012 ALISE Statistical Report, of the 18,640 students enrolled in the ALA-accredited programs, 13,172 were self-identified as "White." Therefore, slightly more than 70% of MLIS students covered by the survey had self-identified as being "White."

The iSchool is trying to address this lack of diversity in the student body through several mechanisms. First, the recruiting staff are now attending several major conferences for students from underrepresented populations including the Hispanic Association of Colleges & Universities Annual Conference, the National Conference on Higher Education (formerly the Fattah Conference), and the National Society of Black Engineers' Annual Conference.

The iSchool has played a leading role in creating national partnerships to further its goals of increasing the diversity of the student pool. For example, the School partnered with the University of the Virgin Islands to secure funding from the Institute of Museum and Library Services (IMLS) to support 25 students from the Virgin Island Territories (a majority of whom were African American) as they earned their MLIS degree. A similar grant-funded project provided scholarships for paraprofessionals in the Philadelphia Free Library System, who were primarily African American and who worked in an underserved community.

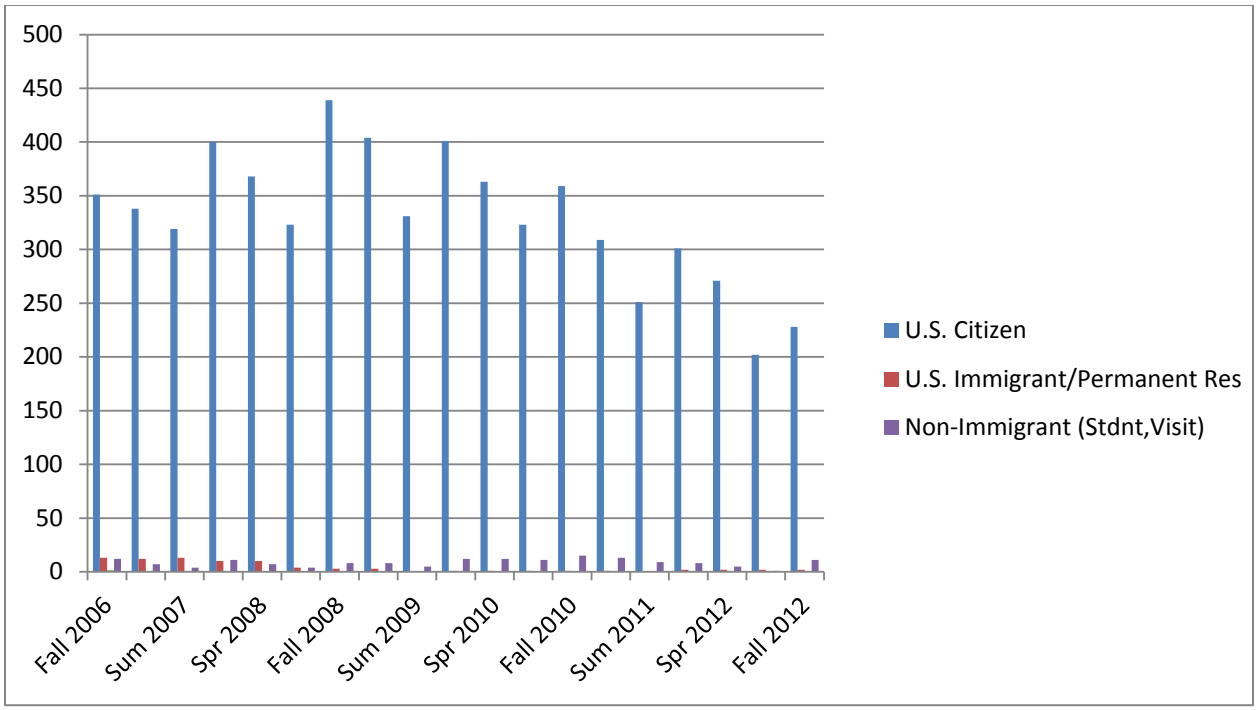
The iSchool has a successful track record in attracting and retaining Spectrum Scholars, a nationally-competitive diversity program administered by the American Library Association (ALA). More than 24 scholars have enrolled in the MLIS Degree Program since the Spectrum Scholarships were first offered in 2000; the iSchool has matched the Spectrum funds for these students.

The School collaborated with the ALA Spectrum Initiative on a project to fund the studies of 12 doctoral students from underrepresented groups – this project was also funded by the IMLS. Two doctoral students enrolled in the iSchool's LIS PhD Program as part of the Spectrum Doctoral Fellowship Program.

The National Science Foundation has funded a Cybersecurity scholarship program for the Security Assured Information Systems (SAIS) track at the iSchool. The scholarships support graduate students in Information Science or Telecommunications and Networking taking the SAIS-track option. The scholarship program emphasizes the recruitment of underrepresented groups to ensure a more diverse and wide-ranging pool of qualified IA professionals. The faculty targeted having 30% of the scholarship recipients coming from an underrepresented group.

The School has attracted endowment and corporate funding for scholarships that will benefit students from underrepresented groups, including the E.J. Josey Endowment Scholarship for Minorities, the Alcoa Ambassador Scholarship Program, the Diversity Librarian Fellowship and Residency Program, and Commonwealth funds that are directed to recruit and retain such students.

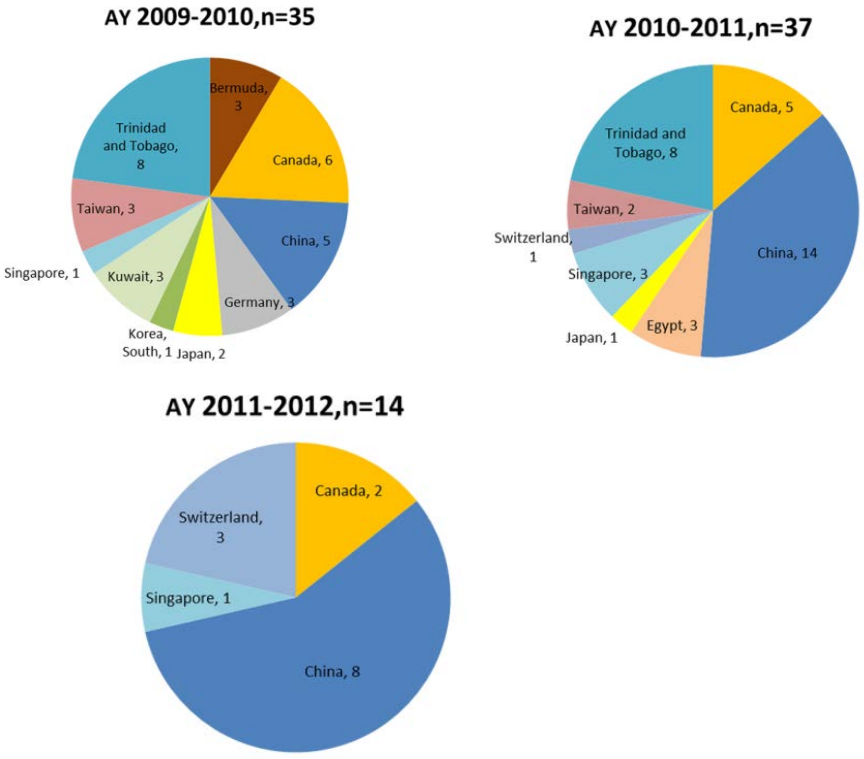
In order to increase the applicant pool of diversity students for graduate iSchool programs across the country, the iSchool designed, developed and implemented the iSchool Inclusion Institute (i3). The i3 project is designed to encourage undergraduate students from underrepresented groups to consider graduate study – and perhaps, joining the professoriate – in the Information Sciences disciplines. With the support of the Andrew W. Mellon Foundation, totaling $700,000, the School will host 60 students in three cohorts from 2011-13.



Residency Status of MLIS Students, 2006-2012

The MLIS student group is comprised mostly of students who hold U.S. citizenship. In contrast, the student populations in the iSchool's Information Science and Telecommunications programs are primarily international. The School has seen few international students in the MLIS program for many years, although the countries represented have varied to some extent. Through a series of community-building and academic events, the MLIS students have ample opportunities to interact with the

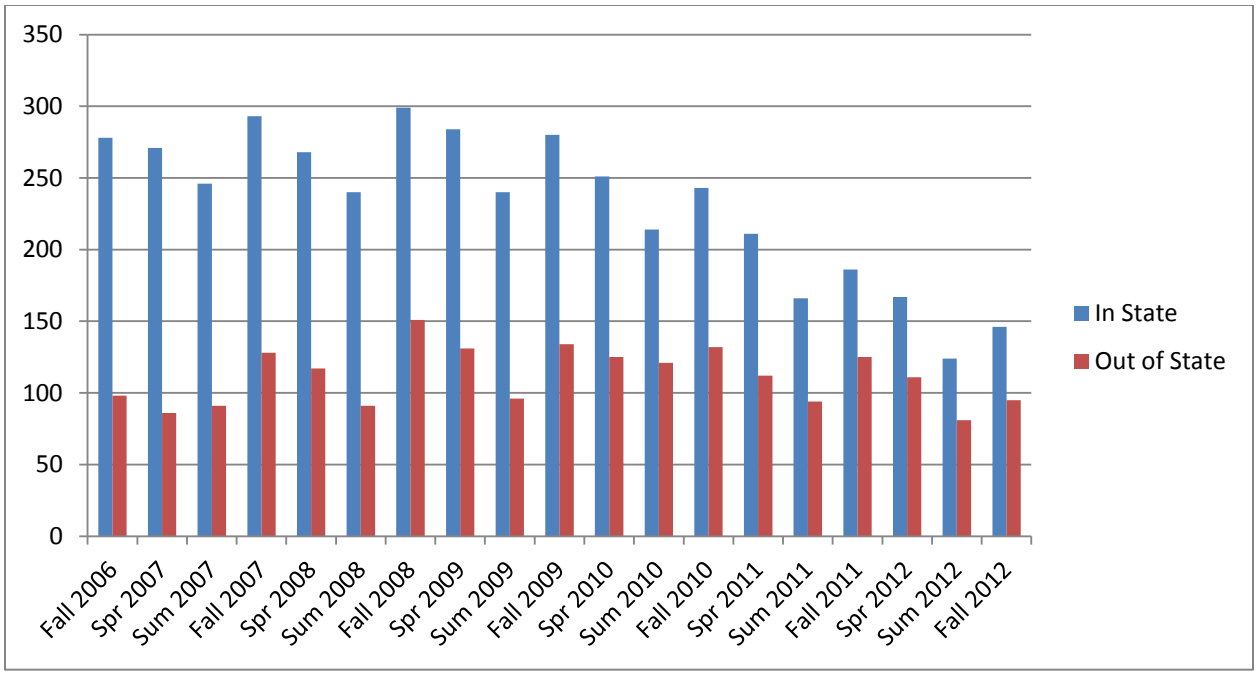
Information Science and Telecommunications students, the majority of whom are international. In addition, the international enrollment in the LIS PhD program has been consistently robust, and since many doctoral students function as TAs and TFs, MLIS students have ample opportunities to interact with international students and to learn about international perspectives.



Countries of Residency, MLIS Program, 2011-12

As has been much discussed in higher education media outlets, the proportion of students from China has increased significantly, even in a program that has a small international population. These students, while adding to the diversity of the school, have different needs and challenges in the classroom. The program faculty have enforced stringent admissions requirements with regards to proficiency in written and spoken English: the admissions policy mandates a higher score on TOEFL than is required by the University.

The majority of MLIS students come from within the Commonwealth of Pennsylvania; the remainder is from more than 40 states. The School is seeing a decline in the number of Pennsylvania residents in the program, which is not unexpected given that the enrollments in the MLIS program were being strategically managed in light of recent declines in the number of faculty available to teach in this program. Pennsylvania residents have several other options for acquiring the ALA-accredited MLIS degree (there are two other accredited programs in Pennsylvania): it might be assumed that students facing financial pressures would select institutions closer to their homes, rather than moving.



MLIS Students, in-state versus out-of-state, 2006-2012

State	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012
CA	4	3	5	6	4	3	3
IL	3	3	3	7	6	2	2
MD	10	10	10	8	9	7	7
NY	5	9	9	9	6	3	2
OH	8	12	25	13	10	9	8
SC	1			1		4	3
VA	5	6	7	3	8	10	11
WA		1	5	3	2	2	2
WV	5	4	3	4	5	2	1

MLIS Students – changes in states of residency, 2006-2012

The table above provides a snapshot of the changes in the states of residency among MLIS students. Of note, enrollments from Ohio have declined a great deal, while the number of students from Virginia has increased. This decrease in students from Ohio might be attributed to the severity of the economic decline in that state: students may be choosing to study at an in-state institution.

Financial Support Policies for the MLIS Program

The MLIS financial support information of critical importance is provided on this Web page: http://www.ischool.pitt.edu/lis/degrees/financial-aid.php. In general, financial support is awarded on the basis of merit, need and availability of funds. The Program Chair, with recommendations from the faculty, considers specific criteria in making these awards:

- academic attainment;
- experience and skills matched to program and/or faculty needs;

- experience and skills matched to stated career objectives;
- volunteer and community services and activities; and
- evidence of financial need.

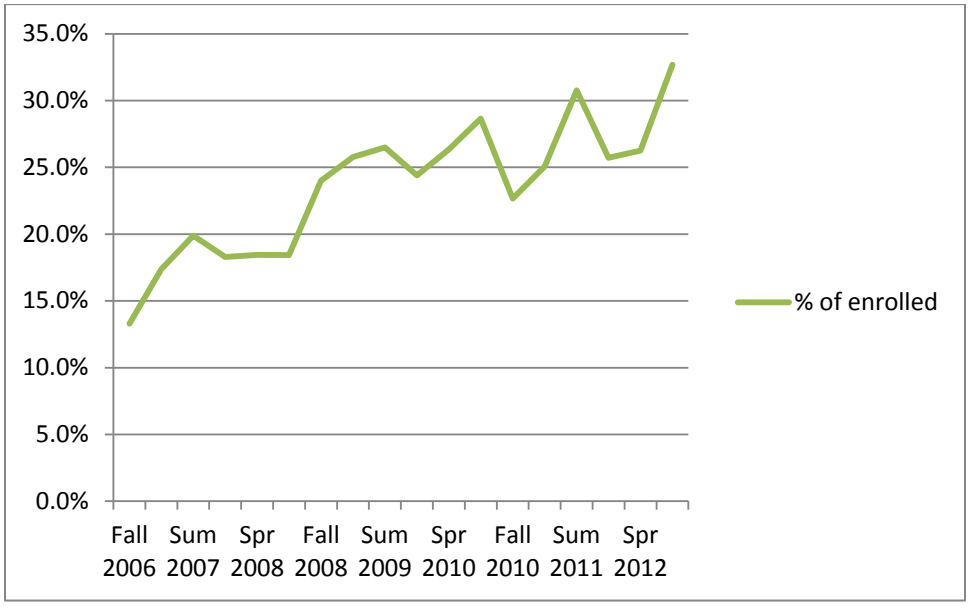
Students eligible for financial support are those accepted for full-status admission or currently enrolled full-time in the degree program, and those who have not already received three terms of funding. It is University policy that only full-time students are eligible for funding. Full-time enrollment is defined as registering for a minimum of 9 credits, but no more than 15 credits, in the Fall and Spring Terms, and a minimum of 3 credits in the Summer Term.

Priority is given to U.S. citizens in evaluating financial support applications. All international students are expected to come fully funded for their entire degree program and any advanced study they may undertake in a certificate program or in a second degree program. International students may be granted financial aid such as the awarding of a Graduate Student Researcher (GSR) for a funded project.

The University of Pittsburgh is committed to providing educational opportunities for qualified diversity students through financial assistance. In accordance with this policy, students from underrepresented groups are strongly encouraged to apply for financial support. In some cases, aid is specifically designated for the support of these students.

Categories of funding/support include graduate student assistantships, Commonwealth Funds, and special scholarships. Each category is fully described on http://www.ischool.pitt.edu/lis/degrees/financial-aid.php.

In spite of decreases in financial support to the School, the LIS program has increased the proportion of MLIS students receiving some form of financial support from the school (this would be in addition to any federal or private funds).



Proportion of MLIS Students given iSchool financial support, 2006-2012

In addition, the LIS program has increased funding for PhD students since 2009, to increase the number of doctoral students in the program. This was determined by the faculty to address several issues: the national call for more LIS educators and the need for more TAs and TFs in the iSchool's MLIS program.

The School has been successful in acquiring scholarship funding from a number of prestigious agencies including the Institute of Museum and Library Services and the National Science Foundation.

Academic/Course-related Policies for the MLIS Program

Maintenance of a 3.0 QPA
Each student must maintain a 3.0 Quality Point Average (QPA) for the 36 credits of graduate level coursework required for the MLIS degree and must have a 3.0 QPA at the completion of the 36 credits to graduate from the MLIS program.

Academic probation/dismissal from the program (Updated 03/29/2010)
Failure to maintain a 3.0 QPA in any term will result in the student's being placed on academic probation immediately. If the student does not raise his or her QPA to at least a 3.0 after the next six credits completed, the student will be dismissed from the MLIS program.

Grading policies
A student must earn a grade of B or better in each core course and must maintain a QPA of 3.0 each term with no grade for an elective course below a C. If a grade of B or better is not earned in a core course, the student must register for the course in the next term offered and earn a grade of B or better. A core course may be repeated only once.

Grades for core courses (Updated 03/29/2010)
The four required core courses are:
•LIS 2000 Understanding Information
•LIS 2005 Organizing and Retrieving Information
•LIS 2600 Introduction to Information Technologies
•LIS 2700 Managing and Leading Libraries & Information Services

In addition to earning a grade of B or better in LIS 2000 Understanding Information and LIS 2600 Introduction to Information Technologies, students declared in the Archives, Preservation and Records Management specialization must earn a grade of B or better in LIS 2220 Archives and Records Management (which fulfills the management core requirement), LIS 2222 Archival Appraisal, LIS 2223 Archival Access, Advocacy and Ethics, and LIS 2224 Archival Representation (which fulfills the core requirements in the organization and retrieval of information). [From Fall 2013, LIS 2215 Preservation Management replaces LIS 2223 as a required course for the revised Archives and Information Science specialization]

Students in the School Library Certification Program must earn a grade of B or better in LIS 2774 School Library Media Center Management, which fulfills the management requirement.

Grades for elective courses

All students must earn satisfactory grades in each elective course taken. Grades of C-, D+, D, D-, F and Unsatisfactory are unacceptable for credit toward graduation. A course for which such a grade is earned must be replaced with another course or retaken, with a higher grade earned. In either case, a higher grade must be earned and a 3.0 QPA be maintained. A course for which a grade of C- or lower was earned may be repeated only once.

Academic provisional admission

At the discretion of the Admissions and Review Committee, a very limited number of students who do not meet the 3.0 QPA minimum required for full admission into the MLIS program may be considered for admission. If such students are able to provide additional evidence of academic potential (e.g., outstanding scores on the Graduate Record Exam or the Miller Analogies Test) or professional potential (e.g., outstanding letters of recommendation and/or outstanding work experience), they may be admitted to the MLIS program with academic provisions. Such students must earn a B average (3.0 QPA) in the first four courses taken. Failure to achieve a 3.0 QPA at the conclusion of the first 12 credits will result in dismissal from the MLIS program.

The iSchool/program policies and procedures are collated at http://www.sis.pitt.edu/~sisint/policies/index.html.
These policies address areas including academic integrity, enrollment, advising, course registration (including add/drop and special permission), academic records, leaves of absence, resignation, and Disability Resources and Services for on-campus and online students.

University of Pittsburgh Policies are also gathered here: http://www.sis.pitt.edu/~sisint/policies/index.html.
There are official policy statements for topics such as affirmative action, responsible computing, drug-free workplace, sexual harassment, research integrity and the Student Code of Conduct.

Completion

The iSchool has several policies and procedures that pertain to students successfully completing their program of study, which are listed at http://www.sis.pitt.edu/~sisint/policies/index.html. These policies and procedure statements address applying for graduation, statute of limitations, using the University's career services group, proof of enrollment and upcoming graduation, and the opportunities to participate in the School's and the University's alumni groups.

IV.2 Current, accurate, and easily accessible information on the school and its program is available to students and the general public. This information includes announcements of program goals and objectives, descriptions of curricula, information on faculty, admission requirements, availability of financial aid, criteria for evaluating student performance, assistance with placement, and other policies and procedures. The school demonstrates that it has procedures to support these policies.

The School produces brochures for each of the degree programs to be used in the recruitment of students. They focus on providing a "big picture" view of the school and the program, inviting

prospective students to visit the Web sites for more specificity and the most current information. The MLIS program brochures are in the Appendix ***PRO 2*** and can be found at
http://www.ischool.pitt.edu/lis/documents/SIS_LIS.pdf
and
http://www.ischool.pitt.edu/online-mlis/documents/MLIS_Postcard.pdf .

The School maintains numerous Web sites, dedicated to outreach to potential students and to providing pertinent and coherent programs of study for current students. The content for these sites is updated on an as-needed basis, providing the most current information available. The main site, www.ischool.pitt.edu, is intended for use primarily by prospective students and information is categorized by the degree program of interest. This site was completely redesigned in 2007, utilizing the design services of the University Marketing and Communications Group. The site allows visitors to explore the school, the concept of an iSchool, the degree programs, and career options in the Information Professions. In addition, the University has many Web-based resources addressing the policies and procedures for graduate study. There are two primary sites: http://www.pitt.edu/~graduate/ and http://www.bulletins.pitt.edu/graduate/index.html. The graduate studies site is updated regularly and the bulletins are completely reviewed and revised on an annual basis.

The School also hosts and maintains another, internal, site at http://www.sis.pitt.edu/~sisint/, which offers more comprehensive coverage of programs of study, policies and procedures, and School information. This internal site also provides an archive of prior programs of study, policies and procedures to facilitate institutional memory.

The MLIS program goals are articulated here: http://www.ischool.pitt.edu/lis/degrees/goals.php. These are presented from the perspective of the student and outline the knowledge, abilities, and attitudes to be attained by graduates of the degree program.

The programs of study are described in full on the School Web sites, which allows students to explore the admissions requirements, the course of study, specializations, course descriptions, financial support opportunities and procedures, and potential career opportunities in the field. Of particular relevance to this report, the MLIS degree program details can be found at http://www.ischool.pitt.edu/lis/degrees/mlis-program.php.

As mentioned in Standard IV.1, the University and School policies pertinent to graduate study are presented on the School's internal website at http://www.sis.pitt.edu/~sisint/policies/index.html. The details of policies and procedures specific to the MLIS program are hosted at http://www.sis.pitt.edu/~sisint/academics/lis/index.html. As noted above, the grading policies are also articulated on that page.

The School expressly addresses evaluation of students with the official grading policies, which are located at http://www.sis.pitt.edu/~sisint/policies/index.html (these are delineated in Standard IV.1). In addition, faculty may have specific grading policies and evaluation guidelines in the syllabi for individual courses (syllabi for current courses are in Appendix ***CUR 1***).

The School also has a presence on several social media sites – LinkedIn, Facebook and Twitter – to assist in informing students about deadlines, activities, and School news.

The iSchool and the University of Pittsburgh provide programming and support services to assist undergraduate and Master's students in their job searches. The School hosts numerous professional development workshops and events throughout the year, including an alumni-hosted Professional Development Day in the spring. iSchool alumni and representatives from Pitt's Career Development Office offer sessions on improving resumes, presentation skills, interviewing capabilities, and networking. This session also offers mock interview opportunities. Alumni also offer resume review and mock telephone interview opportunities on demand – a cadre of dedicated alumni volunteer to interact with students on an as-needed basis to review resumes and practice interviewing skills. A complete list of professional development learning opportunities at the iSchool is included in the Appendix ***SCH 9***: there are usually between 5-10 such events each term. The alumni-hosted event is designed to benefit all iSchool students. In 2013, 17 MLIS students registered for the event, up from 9 in 2012 and 12 in 2011. The School's events typically draw 10-20 students to each event.

At Pitt's Office of Career Development and Placement Assistance (CDPA), career consultants help students to develop the tools they need to conduct an effective internship or job search: career planning, creating effective resumes or portfolios, and effective interviewing techniques. CDPA's staff also comprises employment development specialists, who work to connect businesses and organizations with those iSchool students actively seeking jobs or internships. Pitt's Career Network provides iSchool students with an opportunity to interact with people who have experience in the many professions that are associated with the Information Sciences. This is a network of alumni who help students to improve their career prospects. Pitt's FutureLinks is an online database of job postings exclusive to Pitt students and alumni. More information about this office and the many services it provides to students may be found at http://www.studentaffairs.pitt.edu/cdpa/about .

Student difficulties are addressed on a case-by-case basis. If comfortable, students first discuss any problems with their instructor or advisor. They may then bring the problem to the attention of the Program Chair or the Manager of Student Services. If necessary, the Dean will be called upon to address the situation.

IV.3 Standards for admission are applied consistently. Students admitted to a program have earned a bachelor's degree from an accredited institution; the policies and procedures for waiving any admission standard or academic prerequisite are stated clearly and applied consistently. Assessment of an application is based on a combined evaluation of academic, intellectual, and other qualifications as they relate to the constituencies served by a program, a program's goals and objectives, and the career objectives of the individual. Within the framework of institutional policy and programs, the admission policy for a program ensures that applicants possess sufficient interest, aptitude, and qualifications to enable successful completion of a program and subsequent contribution to the field.

The admissions criteria for the MLIS program are defined as follows:
The Library and Information Science Program seeks students with diverse educational and career backgrounds. Applicants for graduate study must have earned a baccalaureate degree from an accredited college or university with a scholastic average of B (3.0 on a 4.0 scale) or better.

The LIS Program faculty are responsible for reviewing student applications and determining to whom to offer admission and financial aid. It should be noted that the admissions and financial aid review are separate processes: the admissions committee members review admissions applications and the Program Chair determines financial support distribution, after receiving recommendations from faculty involved in admissions.

The program has an appointed admissions committee which reviews all applications. All application materials are submitted online via the University's Apply Yourself system, with the exception of the transcripts which are sent by the applicant's current or previous institutions of higher learning. The committee determines which applicants meet the admissions criteria, which have a strong academic or professional background, and which have stated a specific interest with regards to specializations. If the applicant is interested in the School Library Certification or Archives specializations, their application packet is forwarded to the appropriate specialization faculty. The remainder of applications is reviewed by the Admissions Committee, and decisions are made and recorded about whether or not to offer admission to the applicant.

The LIS program faculty consider the following items in evaluating applicants for admission:

- Two letters of recommendation
- Transcripts for all undergraduate and graduate education
- GRE or Miller Analogies Test scores (this is a new requirement – applies to those seeking admission in Fall 2013 and beyond)
- Resume/CV
- Statement of Intent – discussing academic and professional goals.
  Archives, Preservation, and Records Management specialization applicants must have the equivalent of a year's experience (this experience can be as either a student or paraprofessional) in archives and special collections units in their undergraduate schools and volunteer and other

experience in historical societies, museum archives, historic sites, and cultural organizations), knowledge of the APRM field as demonstrated in their personal statements, and clear professional goals that can be supported by our academic program.

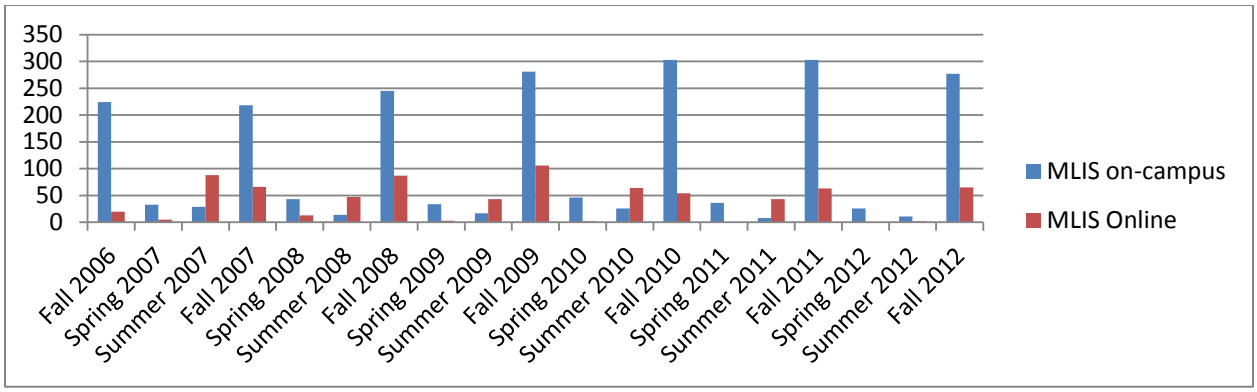
- TOEFL scores (for international students).

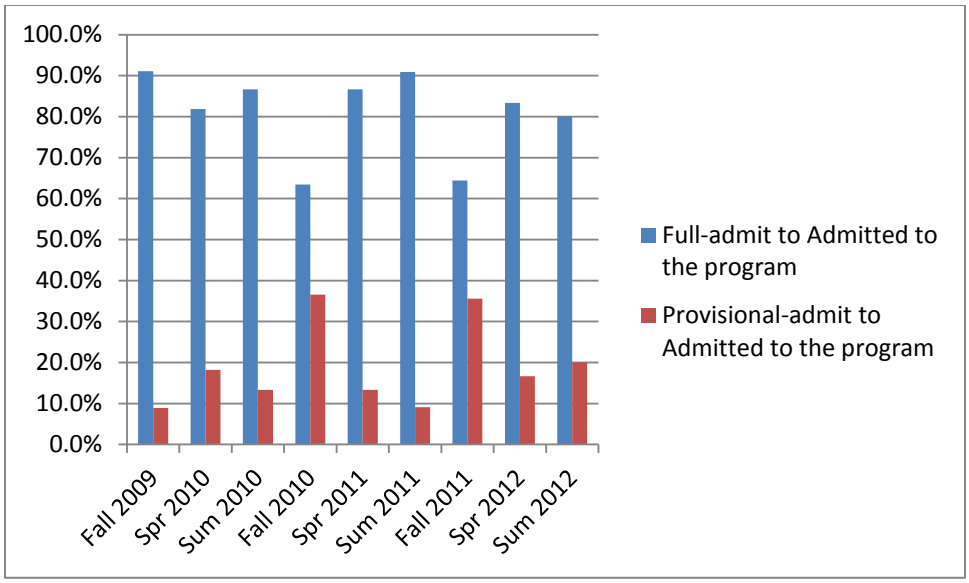
Fall 2010-2011-2012
Acceptance/Matriculation
comparison

	Admission rate			Acceptance rate			Matriculation rate		
Program	Fall 2010	Fall 2011	Fall 2012	Fall 2010	Fall 2011	Fall 2012	Fall 2010	Fall 2011	Fall 2012
FT/ Pitt Online	76%	87%	91%	83%	69%	75%	91%	89%	77%
MLIS	92%	88%	89%	48%	51%	45%	92%	88%	85%
MSIS	91%	89%	89%	35%	36%	38%	82%	60%	71%
MST	96%	92%	85%	51%	49%	63%	50%	46%	47%

As can be seen in the table above, the school has varying admissions and matriculation (yield) rates across the various Master's Programs. Within the LIS program, 89-91% of applicants are offered admission (based on the Fall 2012 statistics). Approximately 45% of applicants to the on-campus program accept the offer of admission, which 75% of the online applicants do so. The matriculation rate for both the on-campus and online programs is between 77-85%. The figures for the other Master's programs within the iSchool are provided to present a comparative picture of yield across program lines.

In looking ahead, we're noting a decline in the number of applications in the MLIS program (both on-campus and online), but outstanding increases in the number of applications to the MSIS/MST programs. This is not unexpected given the projected increase in employment opportunities in the STEM-related fields. However, the growth in applicants and enrolled students is mostly from international students (in 2012, the majority of applicants to the MSIS program were from China. This presents several challenges: economic fluctuations and visa programs can significantly impact both applicant and enrollment numbers. The employment picture for LIS graduates, while improving, is not expected to reach the levels of the STEM fields, which the Bureau of Labor Statistics projects to be between 22-31% over the next decade. Therefore, a decrease in the number of applications to the LIS program is reasonable. The impact of the requirement of a GRE/Miller Analogies Score on applications has not yet been determined. At this point in time, it is difficult to differentiate between a market-related decline in applications and one caused by the requirement of the GRE. It is expected that some potential students will be put off by the requirement, but this may actually have a positive impact on the applicant pool.





MLIS Students, Status of Admission

The LIS program has procedures in place to allow provisional admission to the program for three reasons: awaiting submission of final formal transcripts (either due to bureaucratic delay or to very recent completion of previous degree), pending acceptable performance on the Michigan Test, or for academic reasons. These academic reasons might include a QPA below the required minimum; the admissions committee weighs the QPA against professional experience in a pertinent field or the fact that the previous degree was earned at a time or place which makes a score such as QPA less valid.

The School grants provisional admission to a proportion of applicants each year. For the timeframe of 2006-2011, 929 applicants were offered full admission to the program, as compared to 296 who were offered provisional admission. Of those 296 applicants, 215 were awaiting final official transcripts, 31 were awaiting language scores from the Michigan Test, and only 49 were on the provisional admission list for academic reasons. As per the policy statement, such students were able to provide additional evidence of academic potential, professional potential (e.g., outstanding letters of recommendation and/or outstanding work experience). Students who failed to achieve a 3.0 QPA by the conclusion of the first 12 credits were dismissed from the MLIS program.

The School has always sought to recruit and retain students with strong academic histories.

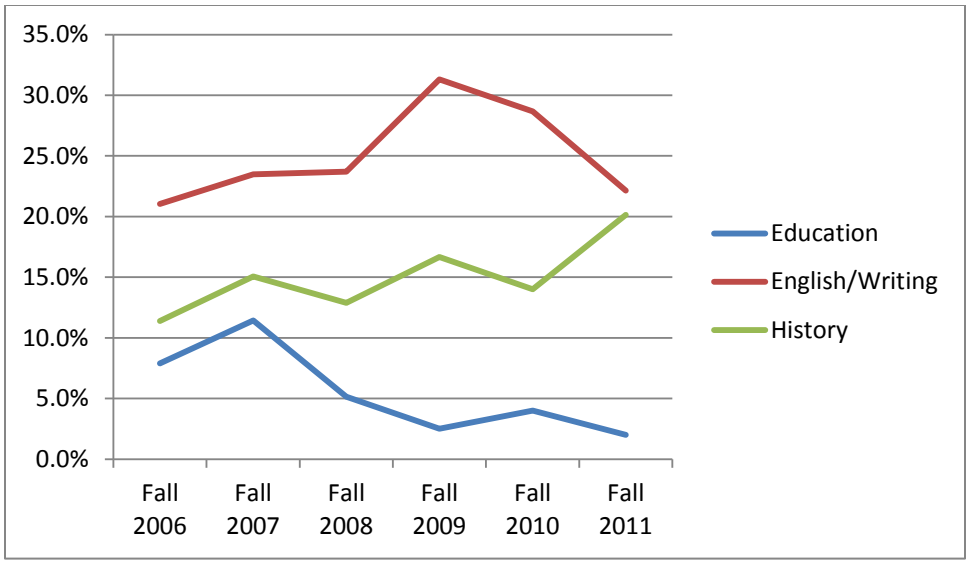
Degree Program	Fall 08	Sum 09	Fall 09	Sum 10	Fall 10	Sum 11	Fall 11	Sum 12	Fall 12
FastTrack MLIS (Online)	3.36	3.45	3.49	3.54	3.62	3.59	3.54		
Master of Library and Information Science (MLIS)	3.57	3.45	3.60	3.48	3.59	3.53	3.58	3.69	3.59
MLIS Pitt Online							3.59		3.47
AVG Entering GPA	**3.55**	**3.45**	**3.57**	**3.52**	**3.60**	**3.58**	**3.57**	**3.69**	**3.57**

Average GPA of newly-enrolled MLIS students, Fall 2008-2012

As can be seen in the chart above, the average GPA of entering students is well above the mandated minimum of 3.0. The academic performance of students can be judged by their grades in the core courses, which are most likely taken in the early semesters of the program. A significant majority of students successfully met the grading criteria for these core courses during the timeframe of Fall 2006 through Summer 2012:

Course	% achieving "B or better"
LIS 2000	90.9%
LIS 2001	93.5%
LIS 2002	92.8%
LIS 2005	89.3%
LIS 2600	93.8%
LIS 2700	92.8%
LIS 2220	To come

The admissions committee also assesses the applicant with regards to degrees earned. The School has noted a dramatic change in the disciplines which have been represented in previous applicant pools. Traditionally, students had previously earned degrees in Education, English/Writing, and History. Over the past six years, the number of students with degrees in Education has declined. This is not unexpected given the lack of hiring opportunities in education due to significant cuts in state and federal funding for K-12 programs. There has also been a slight overall decrease in the number of students coming from the English and Writing disciplines. Interestingly, there has been an increase in the number of students who have earned degrees in History and STEM fields. The history students tend to enroll in the APRM program, but the STEM students show no particular affinity for a specific specialization. The increase in STEM students is a bit surprising in that the job market has improved for such students. This might be in response to an increased awareness of the interrelationships between the traditional LIS field and the technology-related fields.

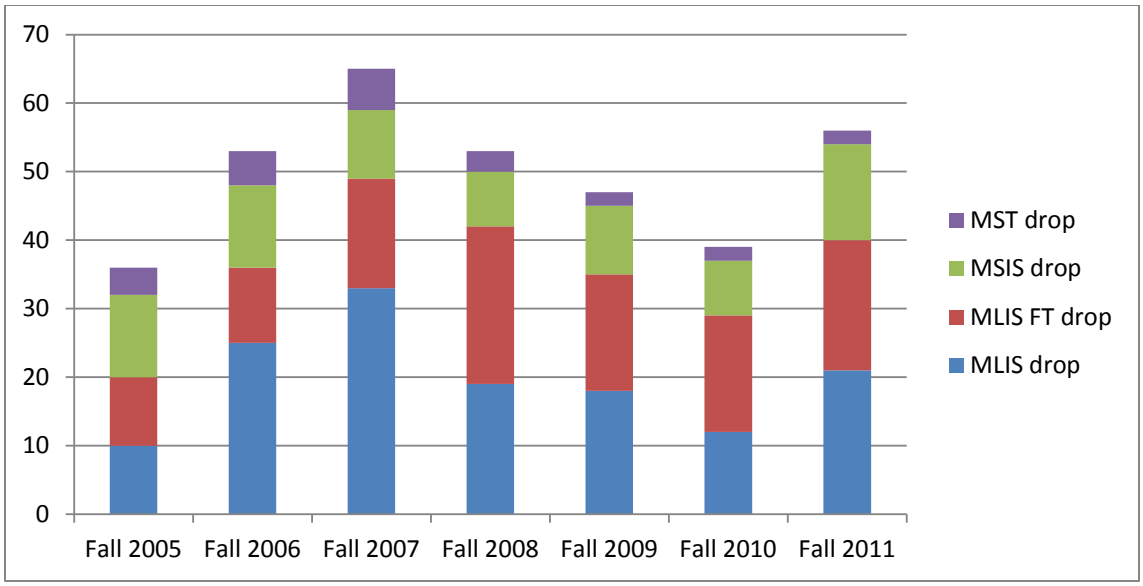


The disciplines which have produced MLIS students, Fall 2006-2011

	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Arts	7.9%	7.2%	9.3%	7.1%	8.7%	14.8%
Business	5.3%	3.6%	3.1%	2.5%	2.0%	0.7%
Education	7.9%	11.4%	5.2%	2.5%	4.0%	2.0%
English/Writing	21.1%	23.5%	23.7%	31.3%	28.7%	22.1%
Health	0.9%	2.4%	1.5%	1.0%	2.0%	1.3%
History	11.4%	15.1%	12.9%	16.7%	14.0%	20.1%
Library Science	1.8%	1.2%	2.1%	1.5%	2.0%	0.7%
Social Sciences/Studies	28.9%	21.1%	23.2%	18.2%	24.7%	22.8%
STEM	6.1%	6.6%	3.6%	5.6%	3.3%	7.4%
Other	8.8%	7.8%	15.5%	13.6%	10.7%	8.1%

Categories of disciplines in which MLIS students earned previous degrees, 2006-2011

The students who have been admitted to the MLIS program over the timeframe of this study have been remarkably successful in achieving their academic goals. One way to evaluate this success is to track retention of the students:



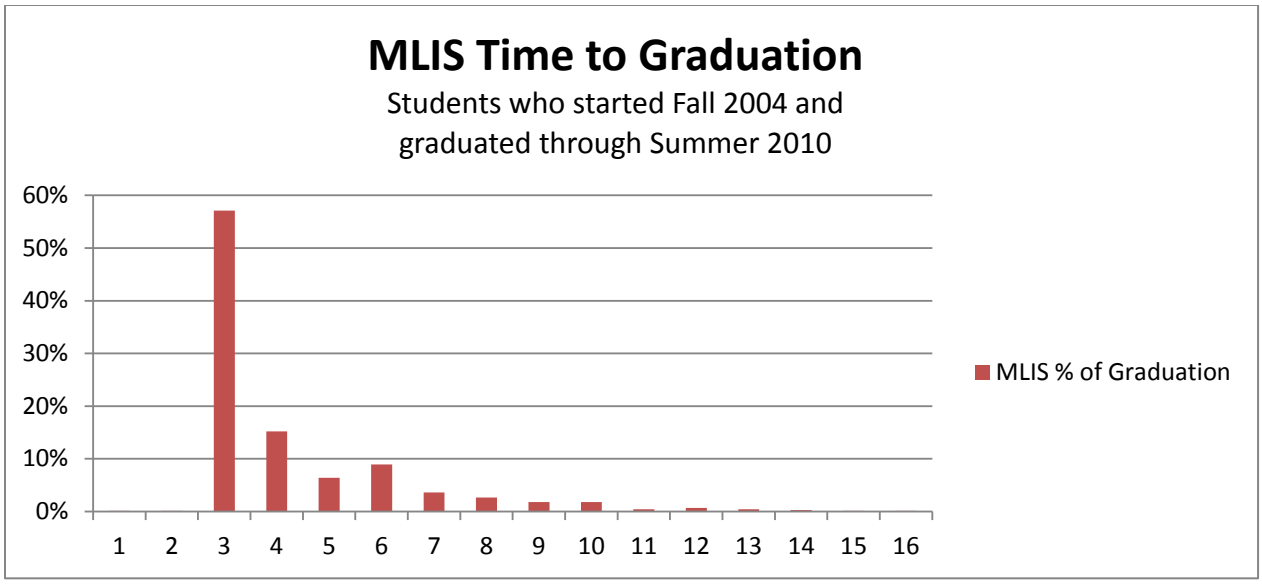
Number of Students Dropping Out of Degree Program, 2005-2011

Most years, fewer than 20 students dropped out of the MLIS program. This would result in a less than 10% loss rate for the program.

Another indicator of student success is the QPA of graduating students, which reveals that students in the program are performing well above the mandated minimum of 3.0 QPA to remain in the program. There are fluctuations in each term, which is to be expected. However, the average GPA at graduation is consistently between 3.72 and 3.88.

	Fa 07	Sum 08	Fa 08	Sum 09	Fa 09	Sum 10	Fa 10	Sum 11	Fa 11	Sum 12
MLIS	3.84	3.78	3.75	3.76	3.77	3.83	3.73	3.86	3.83	3.82
MLIS Fast Track		3.85	3.67	3.73	3.73	3.72	3.95	3.79	3.79	3.85
MLIS FT IMLS		3.41								
MLIS SLCP	3.98	3.79	3.88	3.83	3.79	3.89	3.86	3.97	3.71	3.77
AVG Graduate GPA	**3.88**	**3.78**	**3.77**	**3.75**	**3.76**	**3.80**	**3.80**	**3.84**	**3.80**	**3.82**

Graduating GPA of MLIS Students, 2007-2012



Time To Graduation, MLIS Students, by number of Terms

This chart shows that a majority of MLIS students graduate within 3-6 terms, with more than half completing within the minimum one-year period, which is well ahead of the four-year statute of limitations. This indicates that students are able to construct programs of study that permit them to graduate within a reasonable timeframe. The program can be completed in three contiguous terms, but many students do not consistently take courses full-time, or gain approval for a leave of absence. The part-time students are encouraged to finish within 8 terms: as shown above, most of them do so.

In addition, there is a Beta Phi Mu chapter at the School: this is the national honor society intended to recognize and encourage scholastic achievement among library and information studies students. The motto, *Aliis inserviendo consumor* , meaning "Consumed in the service of others" was selected by the founders based on the concept of dedication of librarians and other information professionals to the service of others. Eligibility for this honor society is based on a minimum of 3.75 QPA and by invitation of the faculty from an American Library Association accredited professional degree program. As of November 2012, there are 186 Life Members of Beta Phi Mu and 61 Active Members in the University of Pittsburgh Chapter.

IV.4 Students construct coherent programs of study that allow individual needs, goals, and aspirations to be met within the context of program requirements established by the school. Students receive systematic, multifaceted evaluation of their achievements. Students have access to continuing opportunities for guidance, counseling, and placement assistance.

The MLIS program permits students to follow an individualized course of study or to follow more prescribed courses of studies in the MLIS specializations. The APRM and SLCP specializations have strict course options and order. All students in the program take a set of core courses which provide essential

foundational knowledge, which is then built upon in more advanced courses. The specific courses are determined by the specialization. Students can identify the appropriate specialization by reviewing the iSchool's Web site, which provides complete descriptions of the various courses of study which are listed at http://www.ischool.pitt.edu/lis/degrees/specializations.php. Students can also consult with the School's recruiters and program administrators to determine the specialization or course of study which will help them to reach their professional goals. Often, an applicant's essay will reveal a strong interest in one area of the LIS field and program administrators work with the applicant to ensure that they understand the values of various specializations.

The actual courses of study are available at http://www.ischool.pitt.edu/lis/degrees/specializations.php. When first applying, the student selects to follow either the individualized program or one of the specializations. Upon this determination, the student is provided with a Planner to ensure that they take the appropriate set of courses, in the proper order. The Planners are included in the Appendix ***CUR 5*** and can be found at http://www.sis.pitt.edu/~sisint/academics/lis/index.html. All specializations allow students some choice in the courses they take, either from prescribed sets of courses or from the full course catalog; the number of required or recommended courses varies for the different specialty areas. The final selection of courses is determined by the student and the advisor. Students are encouraged to look outside of the LIS program and the iSchool for electives, when appropriate. With the approval of the advisor, students can take up to two courses from outside of the School.

Upon being admitted to the School, the student is assigned to an advisor to provide them with guidance on moving through the MLIS degree program. The advisors, all full-time members of the faculty, help students to clearly define their academic and professional goals, and then to identify the appropriate specialization and courses. Through the use of PeopleSoft, Pitt's student information management system, advisors have constant access to the student's academic record. They may check to make sure that students are making satisfactory progress, taking appropriate coursework, and maintaining mandated grades.

Throughout the term, faculty can utilize Pitt's course management system (CourseWeb) to post grades for individual assignments or team projects. This regular evaluation offers students sufficient opportunities to redress any negative grade situations. Course grades are published within 10 days of the end of the term. Each term, the program faculty meet to review student grades and progress to degree. If problems become apparent, the program administrator or faculty will contact the student to advise on corrective actions. In addition, the iSchool's Student Services Manager performs a grade review for all students. If students fall below the required minimums, they receive official notification of being placed on academic jeopardy, which is described in detail in Standard IV.1.

Students may self-enroll, utilizing the PeopleSoft course enrollment module. However, the School strongly recommends that students communicate with advisors each term to review progress to degree and future courses to be taken. Faculty determine the appropriate communications channels and usually offer opportunities to advise students face-to-face, through phone calls or e-mails, IM or text.

Students have access to a wealth of resources to assist in their job search, which are described in more detail in Standard IV.1.

Students also have access to counseling services as provided by the University of Pittsburgh through the University Counseling Center. The UCC is maintained by a multidisciplinary staff of psychologists, social workers, licensed professional counselors, psychiatrists, and advanced graduate-level trainees in a variety of mental health disciplines. All students who are enrolled at the University of Pittsburgh and registered for classes are eligible to receive UCC services. UCC services are provided free of charge. Individual, couples, and group counseling services are offered, as well as seminars throughout the year dealing with issues such as stress management, healthy relationships, and career development. See http://www.studentaffairs.pitt.edu/parentccdescrip for more details.

IV.5 The school provides an environment that fosters student participation in the definition and determination of the total learning experience. Students are provided with opportunities to form student organizations and to participate in the formulation, modification, and implementation of policies affecting academic and student affairs.

Students are encouraged to join and participate in student organizations, of which there are more than a dozen at the iSchool. The complete list of all student organizations is available at http://www.ischool.pitt.edu/resources/student-organizations.php. At orientation, the student organizations host information tables to encourage new students to join. The School also hosts a lunch early in the term to introduce new students to representatives from the various organizations. Information about student organization meetings is disseminated via the list serves, through signage throughout the school, and on the iSchool calendar. Each organization has a named faculty liaison and a staff liaison to ensure continuity and to provide procedural assistance. Several of these organizations are student chapters of the national professional organization such as Special Libraries Association and American Library Association. Students often receive funding to attend the national conferences of such organizations (see STU 3 for more information about travel support for students attending national conferences.)

Students can choose to participate in several different learning opportunities which include Field Experiences, practicums, online courses, WISE courses, and independent study courses.

Field Experience
A field experience (3 credits/150 hours of supervised professional work in an approved information environment) is recommended, especially if students lack professional experience. Placement positions allow students the opportunity to apply their learning to a practical work experience. Placements are available in academic libraries, corporate libraries, legal libraries, medical libraries, public libraries, and archives, as well as other organizations. There are stringent guidelines for this credit-bearing experience which is only available to those who have successfully completed 12 or more credits of coursework. It must involve professional-level experience, be grounded in the theory learned in the MLIS program, be undertaken with the approval of the faculty advisor and under the supervision of a degreed librarian (or holder of an equivalent professional degree), and produce tangible outcomes of learning such as a final project or report. Most importantly, the student must submit a proposal for the experience (outlining his/her goals in undertaking the project) and complete significant reflection essays on the experience.

The SLCP Practicum

As part of the SLCP specialization, students are required to complete a practicum experience in a school library under the supervision of a cooperating teacher librarian working collaboratively with teachers, teaching information literacy skills, providing services to students and teachers, and managing resources.

The Partners Program

The Partners Program provides MLIS students with the opportunity to pursue their education while gaining related work experience in Pittsburgh-area libraries, archives, information centers, and cultural institutions. The Partners Program allows students to experience the work environment of information professionals and to add this learning opportunity to their resume. This is not a credit-bearing experience, although it may provide tuition remission or a limited stipend. This program is administered by the LIS faculty and iSchool staff, most especially the Administrator for the Partners Program. The details of the program are provided in PRO 8 and on the initiatives' Web site at http://www.ischool.pitt.edu/lis/partners/index.php . It should be emphasized that this is not a credit-bearing experience, such as a practicum or field experience course. The intent of the program is the offer students the opportunity to gain hands-on experiences in information centers and libraries, to enhance their resumes, and to network with professionals. The program has seen great success in creating these out-of-the-classroom learning opportunities; however, the recent economic decline has impacted the number of participating institutions and students.

	Number of Students Placed	Number of Participating Partner Institutions	Number of Salaried Positions	Number of Stipend Positions	Dollar Amount of Scholarships Awarded
2007-2008	34	6	34	0	472,248
2008-2009	63	28	20	6	648,456
2009-2010	81	45	36	13	1,008,369
2010-2011	76	43	27	14	1,376,092
2011-2012	66	39	19	19	848,579
2012-2013	45	32	11	18	235,086

Note: The difference between salaried and stipend are students who received no remuneration.

Web-based Information Science Education (WISE)

Web-based Information Science Education (WISE) is a unique and groundbreaking opportunity for students to take elective online courses from other ALA-accredited programs at institutions that are members of the international WISE consortium. Leading schools have gone outside the classroom to broaden the available online educational opportunities for students. The consortium uses advanced educational technology as a means to enrich students' education and to foster relationships among students, faculty and universities. See Appendix ***CUR 6*** to view a list of non-Pitt courses taken by iSchool students through the WISE program.

Independent Research
Students may, with the approval and oversight of their academic advisor, undertake an independent research project. The student selects a faculty member to work with, and designs a research proposal and project. The student is required to regularly report on progress and outcomes may include a written report, a tool, or an implemented program at a library or archive.

Students have multiple opportunities to participate in program management. As discussed in Standard V.4, students are elected to serve on the SIS Council, the primary advisory body at the School. Representatives of the doctoral, Master's and undergraduate student bodies are elected to serve one-year terms on this Council. The Council considers all significant curricular, policy, administrative, and strategic actions undertaken by the School. In addition, PhD students serve on faculty search committees and Master's students are invited to attend faculty candidate presentations and to provide feedback.

Members of the student body attend and participate in the BOV meetings held annually. As described in Standard V, the Board of Visitors serves as an advisory group to the School, providing comprehensive review and advice about the School's educational and strategic activities.

After a brief hiatus, the MLIS Student Advisory Group has been revived. This group of current students (12 for 2012-13) meets approximately monthly with the Program Chair, Program Administrator, a Student Services Specialist and other faculty or staff as needed to discuss curricular and administrative issues of particular interest to the students. In the past, this group had provided invaluable insight that resulted in changes to the program of study and iSchool processes. For example, this committee noted a need for more hands-on technology experiences, which was taken up by program faculty, who redesigned LIS 2600 (Introduction to Information Technologies) to incorporate a significant number of lab experiences, which provides students with an opportunity to work with software and hardware that they will use in their professional lives. In 2011, based on suggestions from the student groups, the School incorporated the application for financial support (school-based aid, as compared to federal and university-based aid) into the online admission application system. This resulted in a more efficient process for students to apply for admission and school-based support in one effort. More recently, the Advisory Group has provided valuable feedback on the strengths and weaknesses of the orientations for new students offered by both the School and the University, which will be incorporated into plans for Fall 2013. For example, this group recommended that the orientation experience be enhanced by campus tours and visits to other resources across campus (the Hillman Library, for example). Another request under consideration is the inclusion of a face-to-face "Help Desk," where students gain assistance in setting up their wireless connections, load software, etc.

All instructors at the iSchool must have their courses evaluated by Pitt's Office of Measurement and Evaluation of Teaching (OMET). Towards the end of the term, a confidential survey is administered to each student in every class (with more than five students). The results of these surveys are reported to the faculty member and are utilized as part of the annual faculty review, the Peer Review of Teaching process, and the review and revision of courses. For example, an APRM course survey revealed that students felt there was not enough opportunity to take electives of interest, as the prescribed course of study accounted for 33 of the 36 credits. The specialization faculty revised the number of required courses and the schedule of their offering, which now allows archives students to participate in summer electives on a variety of topics. The results of the OMET are supplied to the individual faculty member

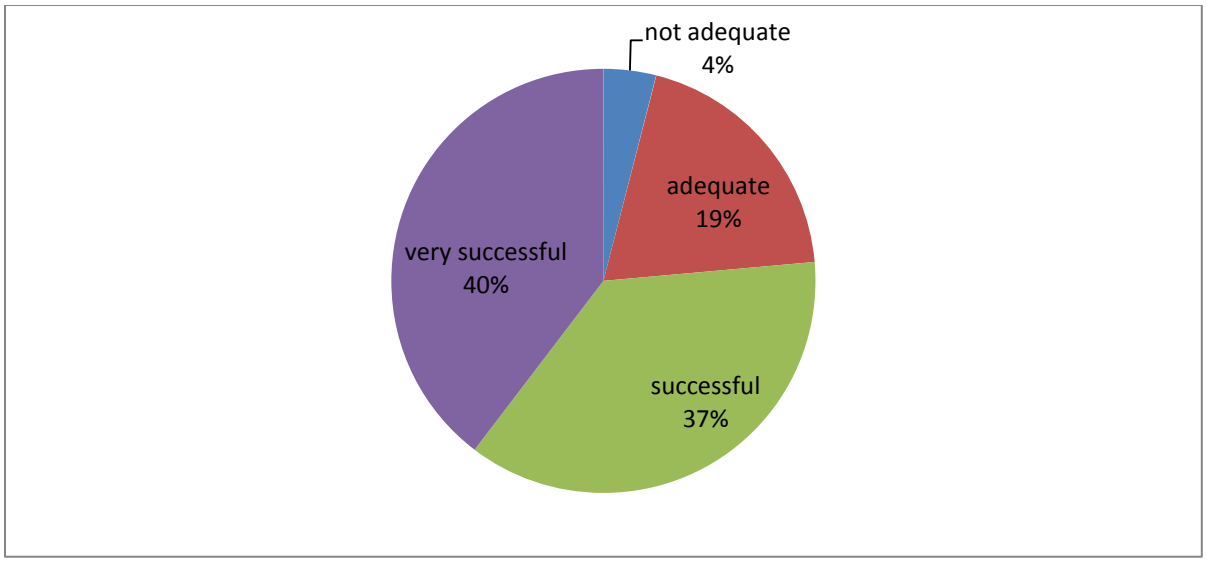
and are not used in the aggregate for any comparison purposes. If a faculty member chooses to do so, they have the results sent to another individual (the Dean, in the case of the iSchool).
See http://www.omet.pitt.edu/docs/OMET%20Policies(rev).pdf for more information about the confidentiality and use of OMETS.

At the end of each term, program faculty and administrators perform a grade review. This examination often reveals telling trends in course performance, which may indicate a need for revising or recasting a specific course.

LIS doctoral students may attend and participate in monthly faculty meetings. This has proven to be invaluable as many of the PhD students earned their MLIS degree recently (some here at the iSchool). They bring a contemporary, hands-on perspective of course offerings and delivery mechanisms, based on their personal experiences as learners, teaching assistants and teachers.

On an annual basis, the School is required to submit to the Provost's Office the Learning Outcome Objectives for the various degree programs, as well as to report on progress in reaching the previous setof goals. This process involves the program faculty extensively and comprehensively reviewing a specific course (as well as course activities) to ensure that the course leads to a defined level of student learning. The LIS faculty have chosen to assess the two core courses which every MLIS student must take: LIS 2000 Understanding Information and LIS 2600 Introduction to Information Technologies. In 2011, the faculty chose to review the student work produced within these two courses (papers, lab exercises) to determine if the courses were providing adequate support for the MLIS goals on research (Understand and apply research in library and information science) and the life-cycle of information (Apply the principles of information management). In 2012, the faculty chose to map the courses' success in preparing students to meet the MLIS goal in the areas of ethical use of technology (Advance the creative and ethical applications of information technologies.) and the University of Pittsburgh goal "Understand the international dimensions of the discipline**."** The Learning Outcomes Assessment guidelines and results from 2011 and 2012 are provided in Appendix ***CUR 7***.

In addition, the School surveys the alumni base to ensure that the learning occurring in the iSchool has long-lasting benefits for the students. The most recent survey (2010) indicated that alumni had a very positive reaction to their program of study:



Alumni Perception about quality of program

IV.6 The school applies the results of evaluation of student achievement to program development. Procedures are established for systematic evaluation of the degree to which a program's academic and administrative policies and activities regarding students are accomplishing its objectives. Within applicable institutional policies, faculty, students, staff, and others are involved in the evaluation process.

The School operates in a culture of assessment – of students, faculty and programs. The University has several evaluation mechanisms including student evaluation of teaching. The School utilizes grade review; Learning Outcomes Assessment; and statistical reports on time-to-degree, enrollment, retention; Peer Review of Teaching; and annual faculty reviews to ensure that program deliverables – courses and courses of study – are meeting the needs of the students and professions. Student and faculty participation in faculty meetings and SIS Council meetings permits their viewpoints to be considered in all forms of School policy, procedure, and planning.

Standard V. Administration and Finance

1.1 The school is an integral yet distinctive academic unit within the institution. Its autonomy is sufficient to assure that the intellectual content of its program, the selection and promotion of its faculty, and the selection of its students are determined by the school within the general guidelines of the institution. The parent institution provides the resources and administrative support needed for the attainment of program objectives.

The School of Information Sciences is one of 16 undergraduate, graduate and professional schools at the University of Pittsburgh. The University offers 446 distinct degree programs, of which the School hosts one undergraduate and six graduate degree programs. The administrative and academic head of the School is the Dean, who reports directly to the Provost of the University. Although this Program Presentation deals specifically with the School's MLIS program, it is essential in many cases to describe the school as a whole to present an accurate picture of the learning environment.

Currently, the School offers the following degree programs:

- Bachelor of Science in Information Science (BSIS)
  concentrations in User-Centered Design, Information Systems, and Networks and Security
- Master of Science in Information Science and Technology (MSIS)
  Specializations in Geoinformatics, Database and Web Services, Information Security, Human-Centered Computing, Telecommunications and Distributed Systems
- Master of Science in Library & Information Science (MLIS)
  Specializations in Archives, Preservation and Records Management; Digital Libraries; Information Technology; School Library Certification; Resources and Services in Health, Reference, and Children and Youth.
- MLIS: Pitt Online (MLIS)
- Master of Science in Telecommunications and Networking (MST)
- Certificate of Advanced Studies in Information Science, Library & Information Science, and Telecommunications
- PhD in Information Science
- PhD in Information Science with a concentration in Telecommunications
- PhD in Library & Information Science.

Autonomy – Curriculum

The faculty has primary responsibility in the areas of curriculum design, degree requirements, program content, methods of instruction, academic advising, and the conduct of research and public service.

Oversight within the program is the responsibility of the Program Chair, an elected position. Specifically, the Program Chair provides strategic leadership and oversight to address key areas including intellectual leadership, advocacy for the program within the iSchool, management of administrative and academic resources, and interfacing with other iSchool advisory or governmental bodies. The specific duties of the Program Chair are outlined in Appendix PRO 8.
Academic programs are designed and presented by the faculty in the iSchool. The content of the degree programs is under the purview of the School's faculty with oversight provided by the SIS Council and the Dean and Associate Dean. This management style enables the program faculty to review and revise the curriculum to better address changes in the field without unnecessary bureaucratic delays. The faculty are responsible for regular review and evaluation of the degree programs in accordance with policies mandated by the University and any accrediting bodies. Each year, the faculty assess the successes and challenges in meeting stated learning objectives through stringent review of core and/or required courses. The program faculty hold monthly meetings, at which discussion of curriculum changes take place on an ad hoc basis. This provides the program with the essential agility to enhance and change the program of study on an as-needed basis. The faculty undertake periodic review of the curriculum for each degree program, drafting proposals for significant changes for the consideration of the program faculty and then the SIS Council.

Such revisions might include changes to admissions requirements, required courses, specializations within each degree program, and the addition of non-degree curricular efforts. For example, in 2011, the APRM-related faculty proposed to change the admissions requirements and documentation in order to garner more qualified students. The School revised its admission application to call for one year of professional experience in the archives field and a more detailed personal statement from those applying to the APRM specialization. The Program Faculty approved the idea and it was implemented in Fall 2011, resulting in better-prepared students who are more likely to be successful. Another example would be the faculty's procedural efforts to change the admissions criteria to include the submissions of GRE or Miller's Analogies scores. A subset of faculty proposed the action, the program faculty voted to enact it, and it was discussed in SIS Council. All students applying to the MLIS program for Fall 2013 and beyond will be required to submit these scores (with the exception of those who already hold an advanced degree such as MSIS, JD, or PhD). This measure was thoughtfully taken in order to bring the program in line with other accredited MLIS programs.

To introduce a new course, the interested faculty member formally proposes the course to the program faculty. Such a proposal involves a description of the course, its learning objectives, a description of how the course will fit into the curriculum and the need for it, a sample syllabus, and an estimate of the resources needed to offer the course. The program faculty consider and vote on the proposal. Many new courses are offered for several terms as "Special Topics" courses; after assessing the success of the course, faculty vote whether or not to add it to the course catalog with a discrete course number.

Annually, the School crafts a report to the Provost of the University outlining progress toward strategic goals stated in the previous annual report: changes to academic programs are also outlined in this annual planning document, carefully outlining the rationale for any proposed revisions of the academic degree programs. Recent Annual Plans are presented in SCH 13 and will be available on-site as well.

If the School would choose to develop new academic programs, a proposal would be developed by a faculty committee for review and approval by the program faculty, the SIS Council, the deans and the

Provost. This proposal outlines the goals of the degree program, the learning objectives associated with such a program, the estimated market demand for the program, the School resources necessary to develop and offer it, and any potential synergistic symbiosis/conflicts with existing University programs. In 2006, the School utilized this process to create the Digital Libraries specialization in the MLIS program. The same process is necessary to eliminate any degree programs.

Autonomy – Hiring of Faculty

The input and approval of the faculty drives the hiring of new faculty at the School of Information Sciences. The program faculty identify hiring priorities for the upcoming fiscal year, based on projected growth, faculty vacancies, and desired research/teaching strengths for future program enhancements. These priorities are reviewed by the Dean and Associate Dean, considering the faculty and teaching needs of the other degree programs. The list of desired positions is reviewed by SIS Council and finalized by the Dean, who submits a request to recruit to the Provost accompanied by a rationale for each position. After receiving approval to recruit for the various positions, the Dean convenes an ad hoc committee of iSchool faculty and doctoral students, as well as an outside faculty member, to serve as the search committee. This committee crafts the solicitation for the position, to include the rank, desired teaching and research areas of interest, and expectations regarding teaching load. This advertisement is reviewed and revised by the University's Office of Affirmative Action to ensure that it meets all Equal Opportunity Employment criteria. The job solicitation is distributed by the University of Pittsburgh to a substantial number of publications – the exact publications are determined by the committee and are selected according to their distribution range or academic focus; a number of selected publications are chosen because their target audiences are from underrepresented populations. The committee reviews all applications for the position, crafting a list of desirable candidates. A subset of the search committee (including the Dean) will also host screening interviews at major professional conferences appropriate for the position (e.g. ALISE, iConference). Based on the review of applications and recommendations from those prescreening at conferences, the committee then determines which candidates to invite to an on-campus visit. Usually, three to five candidates are selected to interview for each open position. During that visit, candidates will meet formally and informally with faculty and PhD students, give a formal presentation to the entire school, and meet with the Associate Dean and the Dean. After the site visits are concluded, the committee reviews the candidates and submits a ranked list of proposed candidates for review by the program faculty; this is then submitted to the Dean for approval. The finalized shortlist is sent to the Provost's Office and approval is sought to enter into negotiations with top candidates. The Dean and the candidate negotiate a hiring package. The official appointment is granted by the Provost.

The iSchool and the University of Pittsburgh have stated goals to increase the diversity of the faculty at this institution. For the last seven years, this has been a major component in the school's annual plan to the Provost. The University's Board of Trustees has established an Office of Affirmative Action, Diversity, and Inclusion. One of the primary goals of this organization is to "achieve diversity in the racial/ethnic and sex composition of its [Pitt's] workforce at all levels." This office also provides numerous resources to assist University groups in searching for diverse pools of faculty candidates: http://www.hr.pitt.edu/diversity/search-committee-resources .

Autonomy – Promotion and Tenure

The tenure and promotion processes are managed and supervised by the School itself. This is a three-tier process, which was revised and approved by the Provost of the University in 2007. The guidelines for promotion and tenure declare that "appointment of properly qualified members of the faculty is of paramount importance to the continuation of SIS as a leader in our field. It is essential, therefore, that those appointed possess not only the stated qualifications, but also those qualities that make for a good teacher, an energetic researcher, and a leader in the profession with an ability to pursue excellence in the educational and research goals in our field." See Appendix ***FAC 8*** for the School's Promotion and Tenure Guidelines.

For those faculty in the tenure stream, the iSchool has created a sequence of reviews to foster success at achieving tenure and promotion. The system includes the Dean's annual review of each faculty member's performance, a comprehensive third-year review before all faculty, periodic Peer Review of Teaching, and informal mentoring.

Each year, the faculty submit progress reports for review by the Dean and Associate Dean, outlining their achievements and activities in teaching, research and service. For faculty approaching tenure, the Dean offers advice and identifies opportunities to improve the candidate's position prior to the tenure and promotion process.

Tenure-stream faculty, as well as non-tenure-stream faculty, participate in a rigorous third year review. All faculty are invited to evaluate the candidate for reappointment. The candidate prepares a dossier and presentation for evaluation by faculty who hold a rank higher than that of the candidate. This subset of faculty also interviews the candidate in a closed session, and then votes whether or not to recommend reappointment. Based on this review and the clear support of faculty for reappointment, the Dean submits the dossier and request to reappoint to the Provost's Office.

The mandatory tenure review (which incorporates the promotion to Associate Professor) must be completed within the sixth year of the candidate's appointment. Promotion to full professor is initiated at the candidate's request, after consulting the Associate Dean and the Dean.

The criteria considered for each candidate for promotion and/or tenure include teaching excellence, research productivity, service to the profession, educational background and (when relevant) professional qualifications. Candidates prepare an exhaustive dossier showcasing their teaching, course development and revision, research and publication, and service activities. The dossier must provide concrete evidence of the following:

- Educational – Holds a doctorate (or equivalent) in the information sciences or a related specialty appropriate to the field. (Examples of evidence: transcripts and academic recommendation.)
- Teaching – Shows proof of continued effort and commitment to improve teaching. (Examples of evidence: student reviews, successful completion of the Peer Review of Teaching process, personal teaching statements, outcomes of seeking instructional and design assistance from University resources such as the Center for Instructional Design and Distance Education, and documentation of course evaluation and revision.)

- Research – Is productive in scholarly research in areas related to teaching specialty. (Examples of evidence: statement of research interest, publications, grant seeking and outcomes, funding acquired.)
- Service – Exhibits a record of participation individually and as a member of an educational team to design creative and effective educational experiences, and demonstrates a commitment to professional activities. (Examples of evidence: recommendations and interview statements, work experience, professional conference organization, peer review panel participation, committee assignments, offices held.)

External letters of evaluation are requested from experts outside the University of Pittsburgh: the list of such experts is developed by the chairperson of the first-tier review panel (up to three names being suggested by the candidate). A minimum of six letters is required. The first-tier committee is selected and convened by the Dean and comprises five graduate faculty members with research and teaching foci related to those of the candidate; members must be of a higher rank than that of the candidate. Up to two members may hold their primary appointment from outside of the School. This first tier committee will review the candidate's dossier and cast a secret ballot for or against tenure or promotion. They will produce a summary of the candidate's accomplishments, an account of the deliberations of the committee, and a description of the voting procedures and results.

Regardless of whether the committee recommends for or against promotion or tenure, a second-tier committee is convened by the Dean. This second tier committee includes all tenured faculty in the School of a more senior rank than that of the candidate – members of the first tier committee may participate in the second tier review, but do not vote. The second tier committee reviews the dossier, the recommendations of the first tier committee, and may call the candidate for an interview. The second tier committee produces a recommendation, including justifications, to the Dean. Then, the Dean reviews the candidate's dossier as well as each committee's findings and recommendations. He then makes an independent recommendation to the Provost regarding the candidate's promotion/tenure application. The Provost conducts an additional, independent review of the faculty member's qualifications for promotion and tenure, and forwards the dossier and all reviews to the Chancellor, who makes the final decision.

Autonomy – Admissions and Financial Support Offers

The faculty within the program hold responsibility for reviewing student applications and determining to whom to offer admission and financial aid. However, the processes are separate: faculty lead the review of admissions applications and the Program Chair determines financial support distribution, after receiving recommendations from faculty involved in admissions.

The program has an appointed admissions committee which reviews all applications – these online applications include a resume or CV, transcripts, letters of recommendation, an essay, proof of financial support (if international), and an official application form for both admission and financial support. All application materials are submitted online via the University's Apply Yourself system, with the exception of the transcripts which are sent by the applicant's current or previous institutions of higher learning. The committee determines which applicants meet the admissions criteria, which have a strong academic or professional background, and which have stated a specific interest with regards to specializations. If the applicant is interested in the School Library Certification or Archives specializations, their application

packet is forwarded to the appropriate specialization faculty. The remainder of applications is reviewed by the Admissions Committee, and decisions are made and recorded about whether or not to offer admission to the applicant.

The School budgets funds for financial support of students (in the form of tuition remission and/or stipend) to each of the programs, and appointed faculty members or Program Chairs determine which applicants (of those who were offered admission) will be offered financial support. Students receive notification of offers of admission via the Apply Yourself system and may indicate their acceptance of the offer within the system. The formal offers of financial support may be made in separate letters sent via US Mail and e-mails, particularly if the students are international.

Doctoral student admissions are supervised by the PhD admissions committee/members of the Graduate Faculty. This group determines a potential fit between specific faculty members and the applicants; the application is then reviewed by that selected faculty member for determination regarding offers of admission. Program Chairs or appointed faculty members make formal offers of financial support to admitted students.

Support from the University

The University of Pittsburgh provides the School of Information Sciences with resources including a building; services, including IT support and access to instructional designers; and a world-class library system. The University also provides staff for maintenance operations of the iSchool building; and student services, such as a health center and seven fitness centers, police and emergency services, and campus transportation. The University budgets the funds necessary for faculty and staff salaries, as well as for the financial support of students. It also conducts periodic compensation studies to assure that salaries of all staff and faculty are in a competitive range benefitting the University. The faculty salary range for the School is of $66,226 – $122,698 (as compared to the average range across the University of $47,107 - $172,033) (*University Times*, 2/23/2012). University resources and financial support are described more fully in Standard V.5.

V.2 The school's faculty, staff, and students have the same opportunity for representation on the institution's advisory or policy-making bodies as do those of comparable units throughout the institution. The school's administrative relationships with other academic units enhance the intellectual environment and support interdisciplinary interaction; further, these administrative relationships encourage participation in the life of the parent institution.

Representation on Institutional Bodies

The School's faculty, staff and students have numerous opportunities to participate in the governance of the University of Pittsburgh. All faculty members may participate in the University Senate, the stated

purpose of which is "to create and maintain adequate communication channels among students, staff, faculty, administrative officers, and the Board of Trustees for discussion and consultation on all matters affecting the welfare of the University." The Senate holds at least one general meeting during the academic year. The University also invites participation through the Senate Council, the Senate Standing Committees (addressing the libraries, space and utilization across campus, and athletics), and the Faculty Assembly (an elected body of representatives). For example, Richard Cox has served on the Senate's Plant and Utilization and Planning Committee (1992-1995). Daqing He is currently serving on the Senate's Election Committee.

The Faculty Assembly is a forum of elected representatives of the eligible faculty to assist in the governance of the University of Pittsburgh. The Assembly discusses University matters of concern to the faculty and offers a venue for faculty participation in the Assembly, where discussion of any matters of faculty concern can lead to expression of a faculty position. It is the principal avenue for broad faculty participation in University governance. Roger Flynn, Associate Professor at the iSchool, is currently serving on the Assembly; Paul Munro serves on the Assembly's standing committee on Plant Utilization and Planning.

The Dean of the School serves on the Council of Deans at the University, which advises and counsels the Provost on academic matters and University issues. The Council meets regularly and is chaired by the Provost. Dean Larsen serves on the Council's Diversity Taskforce as well as the University's International Coordination Council, and the Information Technology Steering Committee. He has completed a multi-year term chairing the Parameters Subcommittee of the University's Planning and Budgeting Committee.

The School has a Board of Visitors, a separate advisory body which reports and advocates on behalf of the School with the Provost and other University administrators. The Board of Visitors meets annually to review the School's progress toward strategic goals, to provide recommendations for future programmatic and strategic efforts, and to report to the Provost. The Chair of the BOV also serves as a University Trustee, ensuring representation of the School and its interests at the highest level of University administration.

The University hosts the Staff Association Council, a membership group representing the 6500 staff members at the University. This group provides a venue for communication between the staff and the University administration. At this time, no iSchool staff member has volunteered to serve on the Council, although a former staff member did so for many years (until her retirement in 2011.

The School has crafted strong ties with other academic and administrative units across the University. The iSchool was fortunate to develop a joint faculty appointment with the History of Art & Architecture Department, which features Alison Langmead serving a joint appointment as a lecturer in the iSchool's LIS Program. As of Fall 2012, six outside faculty hold joint appointments with the iSchool (see Appendix ***FAC 9***). There are eight iSchool faculty members who hold joint appointments with other University units or institutions (see Appendix ***FAC 9***). The School's Master of Science in Information Science Program offers a joint degree program with Pitt's Graduate School of Public and International Affairs, while the BSIS program has a satellite program at the University of Pittsburgh Greensburg. The School has numerous articulation agreements with institutions outside of the University as well, which permits students to easily and efficiently transfer from these schools into the BSIS program. The LIS program has

several specializations that incorporate courses from other iSchool programs (the Graduate Information Science and Technology Program) as well as other University units, including the School of Education and the University's Schools of Health Sciences.

As an example, the SLCP specialization's Intern Option requires that students take EDUC 2000 Psychology of Learning and Development for Education, among other courses. The Digital Libraries specialization requires MLIS students to take an Information Science and Technology course addressing Information Storage and Retrieval as well as providing the option to take electives in Human Information Processing, Data Structures, Interactive System Design and Database Management.

V.3 The executive officer of a program has title, salary, status, and authority comparable to heads of similar units in the parent institution. In addition to academic qualifications comparable to those required of the faculty, the executive officer has leadership skills, administrative ability, experience, and understanding of developments in the field and in the academic environment needed to fulfill the responsibilities of the position. The school's executive officer nurtures an intellectual environment that enhances the pursuit of the school's mission and program goals and the accomplishment of its program objectives; that environment also encourages faculty and student interaction with other academic units and promotes the socialization of students into the field.

The Dean of the School of Information Sciences holds a title, status, salary, and authority which is comparable to that of peer administrators across the university and at other iSchools. Dean Larsen, who earned his PhD in Computer Science at the University of Maryland College Park, is the chief academic and administrative officer of the School and reports to the Provost of the University of Pittsburgh. He joined the school in this position in 2002 (see Appendix ***FAC 1*** for Dean Larsen's CV). This reporting structure is the same as for all 16 colleges and schools at the university, including the presidents of the regional campuses. See Appendix ***UNI 3*** for the University of Pittsburgh's Organizational Chart.

Dean Larsen's primary responsibilities include providing academic and administrative leadership for the School, as well as crafting and implementing a compelling vision of the School's role in the university, higher education, and the Information professions. He is expected to have a thorough understanding of national issues in the information sciences, a commitment to fundraising, and expertise in developing partnerships with both internal and external constituencies. The Dean serves on the Council of Deans, an advisory body of academic program leaders who provide counsel to the Provost of the university.

The Dean provides an annual evaluation to the Provost, reporting on the School's progress to its annual goals, faculty searches, administrative accomplishments and challenges, facilities, the financial state of the School, and the Dean's service to the University and the professions. The Provost then provides feedback on the Dean's report, mostly focusing on the progress toward meeting the stated annual goals. This is a confidential process, but redacted versions of the Dean's reports will be made available on-site (SCH 18)

The Dean works with the Associate Dean and the faculty to ensure the sustained excellence of the academic programs, the continued support of both research and teaching at the School, faculty and staff development, adherence to the University's financial and administrative policies, and building of support for the School's mission. The Dean holds final authority in the hiring of staff and spending in the School. He dispenses funds from discretionary accounts to support faculty development, colloquia, student travel to conferences, and programs and initiatives that benefit the entire school. For example, the Dean recently hired a director of the online learning program who will serve all academic programs throughout the school. Such funds may also be used to support research endeavors which will advance the mission and reputation of the school. He also conducts annual reviews of faculty productivity and goals, helping faculty to position themselves appropriately for tenure and/or promotion. The Dean is advised by the Associate Dean, the SIS Council, program faculty and professional staff. He is the liaison to the iSchool's Board of Visitors, two of whose members are also on the University's Board of Trustees. The Dean has created a suite of staff members to provide professional services to students, faculty and the School.

Research at the iSchool is mostly within the purview of individual or groups of faculty members. Faculty determine which research projects to pursue, as well as the funding avenues to support such work. In AY 2011-12, the Board of Visitors recommended the selection and focus on a select number of research areas to better enhance the School's reputation and to gain the most benefit from limited resources. The Dean and Associate Dean held numerous sessions with faculty to identify those future areas of research focus. The group came to a consensus to direct research activities, future faculty hiring, and doctoral student recruitment to the following signature areas:

- Big data (building community around big data; not simply having big data);
- Spatial information (not limited to geospatial);
- Information assurance (e.g., security assured information systems);
- Web science (including topics such as social network analysis).

These areas have been reviewed and endorsed by the Industry Advisory Council and the Board of Visitors.

A fifth signature research area has been proposed in Digital Stewardship and is presently under consideration by iSchool faculty and administration, and has been discussed with the Provost. Due to the postponement of the 2012 Board of Visitors' meeting, consideration of this topic will resume after the proposed meeting of the group in April 2013.

The Dean and Associate Dean are responsible for annual evaluations of the faculty and staff within the School. Faculty submit an annual review of their productivity and accomplishments in terms of teaching, research and service. The deans utilizes these reports in determining resource allocation, mentoring the faculty member in enhancing their chances for tenure or promotion, and ensuring that faculty have adequate resources (time, staff support) to meet their goals. Staff also undergo an annual evaluation including producing a self-appraisal which is then reviewed by their supervisor, the Director of Administration and the Dean.

Budgets are approved by the Dean for academic and administrative programs. The allocation of space and resources is determined by the Dean and Associate Dean with the counsel of the SIS Council.

V.4 The school's administrative and other staff are adequate to support the executive officer and faculty in the performance of their responsibilities. The staff contributes to the fulfillment of the school's mission and program goals and objectives. Within its institutional framework the school uses effective decision-making processes that are determined mutually by the executive officer and the faculty, who regularly evaluate these processes and use the results.

The School's leadership comprises the Dean, the Associate Dean for Academic Affairs and Research, and the Director of Administration.

The School currently has the following senior staff positions:

Director of Constituent Relations, 2.5 years of experience in this school and 5+ years of development experience at other institutions.
Director of Distance Education, eLearning Partnerships and Outreach (appointed September 2012), 5+ years of experience in distance education, program design, and teaching at other institutions
Director of External Relations, 7 years in this position, 23+ years in public relations and marketing
Manager of Information Technology and Networking, 13+ years in this school
Manager of Student Services, 5 years in this position, 12 years of experience at other institutions
Manager of Personnel and Administration, 1 year in this position, 20 years of experience in the university as an administrator

See SCH 19 for the job descriptions for these senior staff positions

In 2006, in anticipation of the School's reorganization, the Dean and Associate Dean began to hire staff to take responsibility for specific sectors including student services, marketing, proposal writing, grant administration, data management, IT management, program administration, school-wide management, faculty services and personnel management. Existing staff were assigned to specific task areas that would best serve the school and new staff were hired to provide professional services. These staff hires and realignments were designed to relieve faculty of administrative tasks, permitting them to spend their time and effort on teaching, advising, program design, and research. Three of the administrative staff have earned degrees from the iSchool, which assists them in program management and planning.

Directors/managers – 7 leadership staff
Recruitment/Admissions/Student Services – 3 professional staff
Program/Administrative – 6 staff
Financial/Grants administration – 3 staff
Information Technology – 2 staff
Special programs – 1 staff (Director of the iSchool Inclusion Institute)

See Appendix ***SCH 11*** for an administrative organization chart for the iSchool.

Decision Making Processes

Since 2007, the iSchool has implemented a representative management style, with final responsibility held by the Dean. The faculty, staff and students elect representatives to serve on the SIS Council, which serves as the primary voice of the faculty, staff and students with regard to various governance functions within the school. The eleven voting members of the council:

1. Act for and represent the faculty, staff, and students in making recommendations to the Dean on major issues of the School;
2. Serve as the School's planning and budgeting committee for the University's Planning and Budgeting System;
3. Develop and/or review policies, guidelines, and procedures that support or affect scholarship, research, teaching, and service;
4. Develop and/or review policies, guidelines, and procedures in areas of governance, such as personnel, terms and conditions of employment, budget plans for the School, resources, and diversity enhancement;
5. Establish committees as needed to develop and implement policies and procedures related to the above areas;
6. Coordinate the activities of its various committees, receive the reports, and act upon the recommendations of those committees; and
7. Consult with and advise the Dean and/or the representatives of the Dean regarding issues of concern to faculty, staff, and students.

All Council meetings are open to all faculty, staff and students. A number of iSchool faculty regularly attend and observe Council deliberations, often participating in discussions following interests and need. See Appendix ***SCH 5*** for the official By-laws of the SIS Council.

In addition, the School has several profession-based advisory groups to ensure that the School's educational offerings meet the needs of the professions. The Industry Advisory Council and the Telecommunications Advisory Council meet regularly to suggest enhancements to the academic programs. There has previously been an advisory group for the APRM specialization, tasked with offering curricular advice and practical experience recommendations; this group is being reconstituted during 2012-13, following the revisions to the APRM curriculum.

As mentioned previously, the School benefits from the presence of a Board of Visitors. This group, which reports and advocates to the Provost on behalf of the School, has members from academic institutions, government, and industry. Annually, this group meets with iSchool administrators and faculty to review the School's progress in achieving goals, to determine future strategic actions, and to identify resources needed. As of Fall 2012, the members of the Board of Visitors include:

Board of Visitor Members

Name	Title	Institution
Byrd, Gary D.	Director, Health Sciences Library	University at Buffalo The State University of New York
Elish, Herb	Chief Operating Officer	The College Board
Glunt, J. Roger	President	Glunt Development Co., Inc.

Hayden, Carla Diane	Executive Director	Enoch Pratt Free Library
Holtzman, David H.	President	GlobalPOV
Isler, William	Chief Executive Officer	The Fred Rogers Company
Kahn, Robert	CEO and President	Corporation for National Research Initiatives (CNRI)
Lynch, Clifford	Executive Director	Coalition for Networked Information (CNI)
Macedonia, Michael	Chief Technology Officer	Systems and Technology Operations SAIC, Inc.
Matarazzo, James	Emeritus, Dean and Professor	Graduate School of Library and Information Science Simmons College
Moyé, Alfred L. (Chair, BOV)	Trustee, University of Pittsburgh Former Director, University Affairs (now retired)	Hewlett-Packard Company (retired)
Schaefer, Keith	Partner	Constellation Partners
Spiegelman, Barbara	Principal	Spiegelman Group
Strauss, Robert J.	Vice President of Marketing and Sales	Preservation Technologies, L.P.
White, Patrick E.	Partner	Foenix Group
Williams, James F., II	Dean of Libraries	University of Colorado at Boulder
Zales, Mary "Clare"	Deputy Secretary for Libraries	Office of Commonwealth Libraries Department of Education

The decision-making process for academic matters is based on the input and design of the faculty. Faculty from the academic programs determine actions in faculty meetings, reporting to SIS Council on major program actions (to include addition of specializations or revision of admissions criteria). The Council will advise the Dean on implementation of such changes. If the program revision involves the addition of degree options or formalized specializations, the program faculty propose the revisions to the SIS Council, then to the Dean and Associate Dean. The Provost must approve all major degree program additions.

Administrative matters are considered by the School's Dean, Associate Dean, and the Director of Administration, with input from the appropriate staff and faculty. In some cases, outside consultants are retained to provide expert advice, enhancing the School's assessment and decision-making capabilities. Two recent efforts exemplify the judicious use of external consultants in evaluating and revising academic and administrative programs.

In 2011, the iSchool retained the services of the National Center for Higher Education Management Systems (NCHEMS) to assess the content and delivery of the online MLIS program through exhaustive surveys of current students (online and on-campus) and faculty (both permanent and adjunct). As a result of this evaluation, and after significant and lengthy consultation with faculty and SIS Council, the Dean determined to transition the program to Pitt Online, the University's platform for online

educational endeavors. This topic is addressed in more detail in Standard V8. See Appendix ***PRO 3*** for the NCHEMS report on the effectiveness of the online MLIS program.

In 2009, faculty were awarded a grant from the IMLS to design and offer a post-Master's certificate program in Health Sciences Librarianship. The IMLS provided scholarship funding for students enrolled in this online program. Upon completion of the grant program, an outside consultant provided an evaluation of the program elements and considered the potential need for such a program in the future. Based on the evaluators' recommendations, the School will no longer offer the certificate program but is incorporating curricular elements into the Master's program. See Appendix ***PRO 4*** for the consultant's report.

These external evaluations were thoroughly reviewed by program faculty, the Associate Dean, the Dean, the Director of Administration, and the SIS Council before actions were taken based on the consultant's recommendations.

The Dean, in consultation with the Associate Dean and the Director of Administration, determines necessary budget actions, reporting to SIS Council. Each fiscal year, the School receives an allocation from the University based on previous years' financial activities as well as several modifications reflecting the institution's goals and mission (including tuition rate modifications and tuition allocation to the school). The Dean and the Director of Administration develop a fiscal year budget to cover salaries, purchases, building modifications, and financial support of research and students. This budget is presented to the SIS Council and Program Chairs. In recent years, the University has required that the units plan for modest decreases in annual allocations to compensate for decreased state funding. The School carefully determined strategic cost-cutting measures to meet the required financial decreases with minimum disruption to academic and research activities within the school. Planned adjustments include reallocation of $120,000 in 2013 arising from the retirement of a senior faculty member in the Telecommunications area to recruitment of new junior faculty specializing in digital curation or big data, identified as a priority focus for LIS and the School more generally, and $90,000 in 2014 for recruitment of a post-doctoral researcher in the data area (from savings achieved by moving to different technology for the MLIS Online program).

V.5 The parent institution provides continuing financial support sufficient to develop and maintain library and information studies education in accordance with the general principles set forth in these Standards. The level of support provides a reasonable expectation of financial viability and is related to the number of faculty, administrative and support staff, instructional resources, and facilities needed to carry out the school's program of teaching, research, and service.

In recent years, the Commonwealth of Pennsylvania has significantly decreased the state appropriation to state and state-related colleges and universities. This has particularly impacted the state-related institutions, of which the University of Pittsburgh is one. Commonwealth funding decreases have now

reached $43 million over the last three years: state support now accounts for less than 10% of the University's budget, as compared to more than 30% in the 1970s. To address these cuts, without putting an undue financial burden on students by instituting severe tuition increases, the university curtailed or froze salaries, instituted an early voluntary retirement program for long-term staff, and carefully constrained spending across the university. The budget cuts were spread equitably across the university, with each unit mandated to decrease budgets by 5% each year for 2010, 2011, and 2012.

Fiscal Year	University Allocation to the iSchool
2006/07	$8,072, 044
2007/08	$8,526,594
2008/09	$8,355,231
2009/10	$9,319,562
2010/11	$9,817,668
2011/12	$8,248,814

The School administration was determined that those declines in the University-allocated funding would impact students and faculty as little as possible. Therefore, the resources initially allocated for a proposed teaching theater on the 8th floor were re-assigned to the development of more general purpose student study and collaboration spaces.

In spite of these significant cuts, the School retained sufficient resources to hire several new faculty members over the past six years: Bowker, Star, Knobel, Jung Sun Oh, Bowler, Beaton, Corrall, Langmead, Griffin, Pelechrinis, and Farzan.

Over the same time frame, 12 staff members were hired to bolster the school's ability to recruit, retain, and graduate students. Most of these hires did not require additional funding; rather the School reallocated funds from retiring and resigning staff members.

At this time, the School has initiated searches for four faculty positions. It is expected that they will be filled for Fall 2013.

The University has asked each unit to plan for modest budget decreases over the next five years, to accommodate any future declines in state funding. The Dean and the Director of Administration have determined that the School should strive to cover any such cuts by increasing the enrollment in the Information Science and Telecommunications programs.

In addition, the School receives supplementary university funds through the Net Tuition Review. This program rewards careful planning and management of growth in enrollment. The School projects enrollments, across all programs, for the subsequent year. If enrollments exceed projections, a significant proportion (~65%) of the additional tuition is budgeted to the School in the following year. If

enrollments fall short of the projections, the School must remit a portion of their budgeted funds to the university in the following year.

The University provides resources to enhance the iSchool's 4th floor classrooms with furnishings and teaching technology, to create two significant student collaborative spaces on the 8th and 3rd floors, and to upgrade the environment of the iSchool building by weatherproofing windows and expanding air circulation capabilities in lab spaces.

Another source of funding is endowment and charitable gifts to the School. The iSchool enjoys the services of a Director of Constituent Relations, who reports to the University's Institutional Affairs Office. The School has contributed to the success of the University's $2 billion capital campaign, as well as raising funds to support scholarships, special projects (such as the iSchool Inclusion Institute and the Cyberscholarship program), and academic endeavors including research institutes.

Fiscal Year	Total gifts	Notable Gifts
2006	$358,627	
2007	$408,705	
2008	$977,175	A.W. Mellon grant for Cyberscholarship Program
2009	$316,425	
2010	$1,116,340	A. W. Mellon grant for iSchool Inclusion Initiative (i3)
2011	$240,933	Google Research Grant
2012	$1,116,340	Planned giving intentions for the Callery lecture series and MLIS scholarships

The School will make more complete financial details available on-site. The information provided will document School revenue (tuition, research, charitable), aggregate salary expenditures, tuition support (by type and academic program) and teaching support expenditures.

V.6 Compensation for a program's executive officer, faculty, and other staff is equitably established according to their education, experience, responsibilities, and accomplishments and is sufficient to attract, support, and retain personnel needed to attain program goals and objectives.

The salary for the Dean is determined by the Provost. Faculty salaries are set by the Dean with the review and approval of the Provost. Each position's salary is based on comparable positions throughout the university and considering peer positions at other institutions.

The average and median salaries for faculty in the School of Information Sciences is on a par with faculty at other similar units at the University:

School of Information Sciences – $85,227 average
School of Nursing – $65,936 average

School of Social Work – $74,499 average
School of Education – $81,049 average
Graduate School of Public and International Affairs – $99,878 average
University Times, February 23, 2012

In October 2012, the University's Management Information and Analysis office used AAUP and ARL annual salary reports to compare with Pitt faculty salaries. Compared to 34 public AAU institutions, Pitt's professors ranked 16th with an average salary of $134,800. Pitt was ranked 14th in terms of associate professor salaries and 26th for the salaries of assistant professors. (University Times, October 11, 2012)

The salary for staff is determined by the category of the position. The University has specific salary ranges for each category and individual units are mandated to remain within those ranges when hiring new staff. The average salary for staff at the iSchool is $45,032 which is comparable to staff at other units: Graduate School of Public Health ($44,372), School of Health and Rehabilitation Sciences ($39,751), and School of Nursing ($42,368). (University Times, October 11, 2012)

V.7 Institutional funds for research projects, professional development, travel, and leaves with pay are available on the same basis as in comparable units of the institution. Student financial aid from the parent institution is available on the same basis as in comparable units of the institution.

The School budgets travel funds (~$2,000 per year) for each faculty member, to facilitate their travel to professional and research conferences. These funds may supplement grant-funded travel, or be the sole source of support for faculty travel. These funds cover transportation, lodging, and any conference registrations.

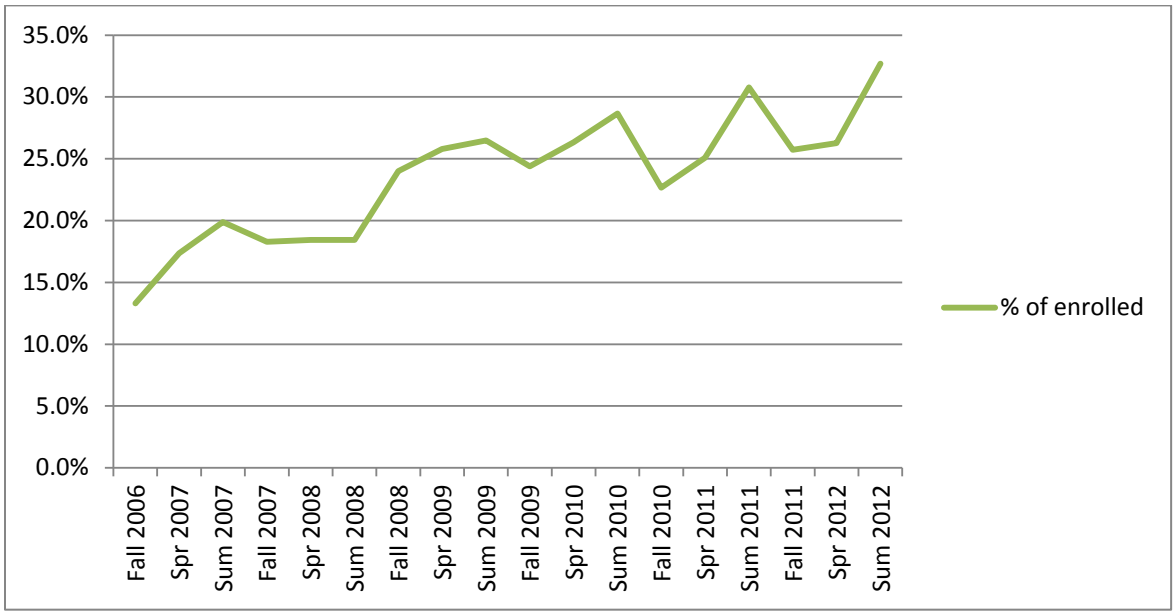
The University directs discretionary funds derived from indirect costs associated with research grants ("Research Discretionary Funds") to the iSchool in order to foster faculty research endeavors. Faculty propose innovative or strongly-collaborative projects which will enhance the School's research reputation. The Associate Dean and the Dean then allocates a portion of the discretionary funding to support equipment purchases, student research assistants, or travel to further the research agenda. See Appendix ***FAC 2*** for a list of funded research at the iSchool.

The University also supports faculty through periodic sabbatical leaves. A sabbatical leave may be awarded to a tenured faculty member who has served at least six years after initial appointment in the tenure stream or after return from a previous sabbatical leave. Periods of absence without pay are not counted as part of the six years. If a sabbatical leave is delayed at the University's request, the period before a subsequent sabbatical leave may be shortened by an amount not exceeding the extent of the requested delay.

Sabbatical leaves may be approved for either a full appointment year at one-half salary, or one-half the appointment year at full salary. Teaching for a faculty member on annual appointment who is awarded

a six-month sabbatical leave at full pay is arranged so as to minimize the effect of the leave on the teaching program of the faculty member's academic unit.

Student financial aid at the iSchool includes funds from a variety of sources including the University's allocation to the School, endowed scholarship funds, and funded research projects. The University's portion of scholarship/stipend funding is determined through an institution-wide model known as Tuition Revenue Generation.



MLIS students receiving financial support from the iSchool budgets

As can be seen in the chart above, the proportion of MLIS students receiving some form of financial support from the iSchool has increased over the last two years.

V.8 The school's systematic planning and evaluation process includes review of both its administrative policies and its fiscal policies and financial support. Within applicable institutional policies, faculty, staff, students, and others are involved in the evaluation process. Evaluation is used for ongoing appraisal to make improvements and to plan for the future.

Each year, the School undertakes a number of planning and review processes in order to ensure that it is maintaining progress towards its strategic goals and objectives, its policies are in line with the University's guidelines, and that it is operating at peak efficiency.

The School submits an annual plan to the Provost in March, reflecting achievements from the prior year and goals for the next. Also on an annual basis, the School prepares a budget for the following fiscal year. These processes permit the Dean, Associate Dean and Director of Administration to review fiscal

policies, administrative polices and financial support actions. Then, the Program Chairs and program faculty review program-level financial and administrative policies. For example, all three doctoral programs were comprehensively reviewed between 2009-2011 for academic content, procedures for timely acquisition of the degree, and clarity of administrative policies.

The efficacy of existing policies is assessed, with revisions proposed for the next year. From 2008-2012, the School reviewed and revised the SIS Council Bylaws, the Peer Review of Teaching process, and the Promotion and Tenure guidelines. In many cases, the need for any revisions became clear at monthly faculty meetings or SIS Council meetings. These consistent venues provide feedback from the faculty, staff and students to the Dean and administration.

For example, in 2010, the Dean moved responsibility for faculty research travel budgets and expenditures to the Program Chairs. This was done in light of the fact that the Program Chairs are more familiar with the research significance and needs of individual faculty.

Another example would be the budget for financial support of students. The budget amount is determined by the Dean and the Director of Administration: this amount is then distributed to the academic degree programs. The choice of which population of students will receive the funding is determined by the Program Chair or selected faculty members. From 2006-2008, most of the LIS-related financial aid was distributed to MLIS students. From 2009 on, a greater proportion of the funds were allocated to support PhD students in the program. This shift had two objectives: to increase the number of new PhD students in the program, and to be able to utilize existing PhD students as Teaching Fellows, which requires a higher stipend. This provides PhD students with invaluable experience in teaching, better preparing them for future academic positions. The program determined to manage financial support of MLIS students through dedicated gift funds (endowed and alumni gifts) and through the creation of the Partners Program (which offers MLIS students practical experience opportunities and in some cases, tuition remission and a stipend).

The role of advisory groups and student evaluations can be clearly seen in the process to transition the existing MLIS online program to Pitt Online, the University's platform. The School of Information Sciences approached this move based on changes in the online education market, strong recommendations from its Board of Visitors, and recommendations from an external consulting firm retained to suggest improvements in the offering of such an online learning experience. In 2000, the School began to implement a plan to offer its ALA-accredited MLIS program in the online environment. With this, the School hosted the first online degree program at the University of Pittsburgh. Over the past ten years, this program was enhanced in terms of both content and the delivery system – all of which occurred outside of the fledgling online education movement at the University. In 2010, the School's Board of Visitors strongly recommended that the administration consider potential future iterations of the online program in light of changes in technology, shifting markets for online degree programs, and efficiencies of scale. Simultaneously, the School was assessing the increased workload involved in offering the online program in the blended teaching format (courses on-campus being recorded for online students). This format had significant implications for faculty time, faculty research productivity, and distribution of IT resources across the iSchool. In particular, this resulted in faculty

team-teaching several courses with enrollments exceeding 100 students (a combination of online and on-campus students). The amount of preparation time and effort to create learning experiences that worked concurrently in both on-campus and online environments, coupled with the volume of interactions necessary to support such large enrollments, were taking a toll on faculty who had to also manage rigorous research programs and provide services to the University and professional communities.

In response, the iSchool retained the National Center for Higher Education Management Systems (NCHEMS) to independently evaluate the operation, delivery, and curriculum of the online degree program. After an exhaustive review, the NCHEMS consultant recommended that the current modality of the program (blended classes that include both online and on-campus students) and the delivery system (Panopto) were probably not the most effective and efficient methods to be used in offering an online program, particularly given the University's more recent development of Pitt Online. The impact on faculty productivity, the dissatisfaction with the delivery method on the part of students, and the costs of maintaining the technology infrastructure were all highlighted in the report from the consultant. The consultants recommended re-envisioning the program in terms of curricular elements and delivery methods. See Appendix ***PRO 3*** for the NCHEMS report.

In recent years, Pitt has built a core online program offering certificates and degree programs in several disciplines including nursing, business and education. In light of this exceptional delivery system and capacity, and based on extensive conversations with the faculty and SIS Council, it was determined to offer the online MLIS program via this robust University-wide program.

The move to Pitt Online is underway, with core courses being produced utilizing University design and hosting services. The faculty, working with the iSchool's new Director of Distance Education, eLearning Partnerships and Outreach, is considering the consultants' recommendations regarding the on-campus element and types of programs to be offered online. Thus, it can be seen that faculty, students, and administrators – as well as outside experts – were significantly involved in this programmatic change. See Appendix ***PRO 5*** for Transition Plan.

Standard VI. Physical Resources and Facilities

VI.1 A program has access to physical resources and facilities that are sufficient to the accomplishment of its objectives.

The School of Information Sciences at the University of Pittsburgh is housed in its own building, featuring eight stories and three levels of underground parking. The building includes more than 50 offices for faculty, staff and students. In addition, there are currently seven classrooms, two student computing labs, dedicated research spaces for nine research groups, four conference/meeting rooms, and a student lounge on the main floor. The building is handicapped accessible with two entrance/exit ramps and two ADA-accessible restroom facilities. In addition, the students have access to a University-wide initiative to create a barrier-free learning environment. This is supervised through the University's Office of Disability Resources and Services, http://www.studentaffairs.pitt.edu/drsabout .

Students with documented disabilities may schedule weekly one-on-one meetings to identify potential barriers to success and to learn new strategies to reach academic goals. General topics include: Executive Functioning Skills, Test Analysis, Note taking, Active Reading, Utilizing Accommodations, Disability Counseling and Self-Advocacy. A subset of pertinent services and resources are made available to online students as well. For example, several hearing-impaired individuals received ASL interpretation via distance technology as part of their program of study.

In Fall 2012, the School initiated the renovation of two significant spaces to provide student/collaborative spaces on the third and eighth floors. The third floor space, formerly a traditional departmental library, will have quiet study spaces, communal spaces designed to support collaborative work by Master's and undergraduate students, and three conference/meeting spaces. The new student spaces will have ample electrical support, charging stations for devices, state-of-the-art projection screens, flat panel displays and technology assistance for applications such as Skype and WebEx conferencing. Many students and faculty work with colleagues from across the world: the conferencing facilities will permit efficient real-time interaction with researchers regardless of location. (See Appendix ***SCH 10*** for schematic.) The space on the eighth floor will be transformed from an underutilized computer lab into team research space, with computer-enhanced classrooms and teleconferencing centers for the iSchool's doctoral students.

The IS building has seven classrooms, which have been updated with new technology to support the School's teaching mission. The classrooms seat 306 students in total and offer projection systems and built-in computing and sound services. Classes with more than 75 students take place in numerous auditorium spaces within two blocks of the IS Building. Two spaces on the fifth floor have 80 inch high-definition flat panel displays for lectures, research presentations, and related uses.

In the last five years, the University has updated both the wired and wireless network access throughout the building. Obviously, an iSchool needs extensive Internet access, and the new University-supported high-speed network provides state-of-the-art broadband capacity. Prior to this, the School developed, installed, and maintained its own networks – in fact, the iSchool created the first comprehensive wireless environment on campus. Having pioneered the development of both wired and wireless networking on campus, the School is now the beneficiary of an institutional commitment to University-wide wireless and wired networks, with technical support provided centrally by the University. In addition, the electrical and air handling systems were upgraded on several floors to provide enhanced support for computing intensive work.

Classrooms in the Information Sciences Building

Room Number	Style	Capacity
Room 403	Lecture	75
Room 404	Lecture	50
Room 405	Lecture	56
Room 406	Lecture	438
Room 411	Lecture	32
Room 501	Lecture	50
Room 502	Conference	18
Room 522	Conference	20
Room 1A04	Conference	20
Room 831	Teaching Lab	20

The facility is not without its drawbacks. The building was designed by Pittsburgh architect Tasso Katsolas in 1965 in the Brutalist style. The building was heavily renovated over the years, but the basic style makes structural change quite difficult. The core of the building, which houses elevators, restrooms, and stairways, does not permit opening up many spaces to create sweeping research suites. Although the University has undertaken repair of window seals and upgrading of HVAC systems, the building experiences the usual problems in temperature control found in structures that are more than 40 years old. In 2011, the Board of Visitors encouraged the School to begin petitioning the Provost to seek a new facility. Given the budget restrictions discussed in Standard Five, there seems little likelihood of acquiring a new facility. The Provost has indicated that consideration will be given to continued enhancements of the current building, rather than the acquisition of another building. The faculty and the SIS Council have been dedicating time during the Fall 2012 term to determine the types of upgrades to be proposed to the Provost. The underlying goals of any such renovations will be to provide more effective learning and research facilities for students and faculty.

The University of Pittsburgh

One of the benefits of being housed within a major university which serves more than 30,000 students is access to a remarkable array of amenities to support education, research and student life. The University of Pittsburgh has five campuses: Pittsburgh, Johnstown, Greensburg, Bradford, and Titusville. The School of information Sciences is located on the 132-acre Oakland campus, which features an impressive array of amenities and educational facilities. The campus is in the Pittsburgh neighborhood of

Oakland, which is home to residents, a thriving business district, and the campuses of Pitt, Carnegie Mellon University, Chatham University, and Carlow College. The world-famous healthcare entity, UPMC, has its clinical and research facilities on the Pittsburgh campus.

There are 90 buildings on the Pittsburgh campus, the most famous of which is the 42-story Cathedral of Learning. Home to the Dietrich School of Arts and Sciences, the Cathedral also hosts Nationality Rooms which represent the cultures of the various ethnic groups that settled in the Allegheny County region. Each room features furnishings and finishes reflective of the home country's classrooms or public spaces.

There are seven recreational facilities across campus to meet the physical fitness needs of faculty, staff and students. The Trees Hall facility has an Olympic pool with diving platforms, while Bellefield Hall has a lap pool. The Petersen Events Center has the state-of-the-art Baierl Recreation Center, as well as a 12,500-seat arena for Panthers basketball programs, concerts, and major campus events such as commencement.

The Pittsburgh campus provides a vibrant social life for students with concerts at Bellefield Hall or the Petersen Events Center, theatre productions at the Stephen Foster Memorial Theatre, and more than 450 student organizations. Pitt Arts, a university portal to the city's vibrant arts landscape, provides free or reduced admission to a myriad of cultural sites and performing arts venues throughout the city.

Computing at Pitt

The university has eight major computing labs for students, hundreds of e-mail kiosks across campus, and self-service print stations. The University of Pittsburgh's robust network and Web services support learning, teaching, research, collaboration, and business operations. PittNet is a high-speed, multi-service network that provides access to University computing resources and the Internet. The secure and easy-to-use Wireless PittNet service is available campus-wide, and Guest Wireless provides access to visitors on official University business. The Network Operations Center (NOC) manages University business and academic systems.

The University's Computing Services and Systems Development (CSSD) group connects Pitt's researchers and educators to Internet2 and its member communities through the Pittsburgh GigaPop. The Three Rivers Optical Exchange (3Rox) is a regional network aggregation point, providing high speed network access to research and commodity networks.

Students, staff and faculty can easily and securely access valuable information at other institutions using their primary University Computing Account username and password. This is made possible by the University's membership in the InCommon Federation and Shibboleth (a behind-the-scenes authentication and authorization mechanism). Anyone at Pitt can currently access resources from the National Institutes of Health (NIH) and EDUCAUSE. In addition, the University is now a member of Eduroam, a secure global service that enables students, faculty and staff to obtain wireless access to the Internet at more than 2,000 education and research institutions around the world, by simply entering their Pitt username and password.

CSSD connects Pitt's researchers and educators to the National Lambda Rail (NLR). The Network for Advanced Research and Innovation founded by the U.S. research and education community is the high-performance, 12,000-mile innovation platform for a wide range of academic disciplines and public-private partnerships.

Adjacent to the Pittsburgh campus, a mere block from the iSchool, stands the Pittsburgh Supercomputing Center (PSC). The PSC provides university, government, and industrial researchers with access to several of the most powerful systems for high-performance computing, communications and data-handling available to scientists and engineers nationwide for unclassified research. PSC advances the state-of-the-art in high-performance computing, communications and informatics and offers a flexible environment for solving the largest and most challenging problems in computational science. The University of Pittsburgh is a partner in this Center devoted to extending the NSF's cyberinfrastructure program through the creation of the Extreme Science and Engineering Discovery Environment (XSEDE), the successor to TeraGrid.

Both online and on-campus students have access to computing resources, including a 24/7 Help Desk, at the University of Pittsburgh.

The University Library System

Faculty and students at the iSchool have access to the world-class resources of the University Library System (ULS), which is the 26th largest academic research library in North America. ULS collections exceeded 6.3 million volumes, 5.5 million pieces of microforms, and 130,000 current serials in FY 2011. The central facility, Hillman Library, has seating for 1,700 users, reference services, and collections in the humanities and social sciences. The Archives Service Center, which holds manuscript and record collections documenting the history of Pittsburgh and Western Pennsylvania, is located approximately three miles from the Oakland campus and serviced by a shuttle bus that runs throughout the day.

Faculty and students can access the ULS holdings and licensed resources through PittCat+, the state-of-the-art webscale discovery system that combines online access to the library catalog and institutional repository with article-level searching and retrieval of journals, conference proceedings, newspapers and other media. The ULS collections include an extensive array of online journals, licensed e-books and other digital texts, in addition to general and subject-specific databases supporting the University's research mission. ULS is also an innovator in the field of collection digitization and digital scholarship, managing D-Scholarship, a repository for the research output of the University, and hosting or publishing more than 20 peer-reviewed academic journals.

The University of Pittsburgh is a member of the Association of Research Libraries. Through membership in several library consortia, including PALCI, ARL and NERL, reciprocal borrowing arrangements have been developed with many other institutions in Pittsburgh and throughout Pennsylvania.

Both online and on-campus students have access to the University Library Systems' holdings and services.

VI.2 Physical facilities provide a functional learning environment for students and faculty; enhance the opportunities for research, teaching, service, consultation, and communication; and promote efficient and effective administration of the school's program, regardless of the forms or locations of delivery.

The iSchool's classroom space recently underwent renovations to upgrade the teaching technology to benefit both on-campus and online students. Previously, the School provided stand-alone, mobile technology carts with computers and projectors. Thanks to the renovations, faculty members bring their own laptops to the classroom and connect directly to the installed projection and audio systems.

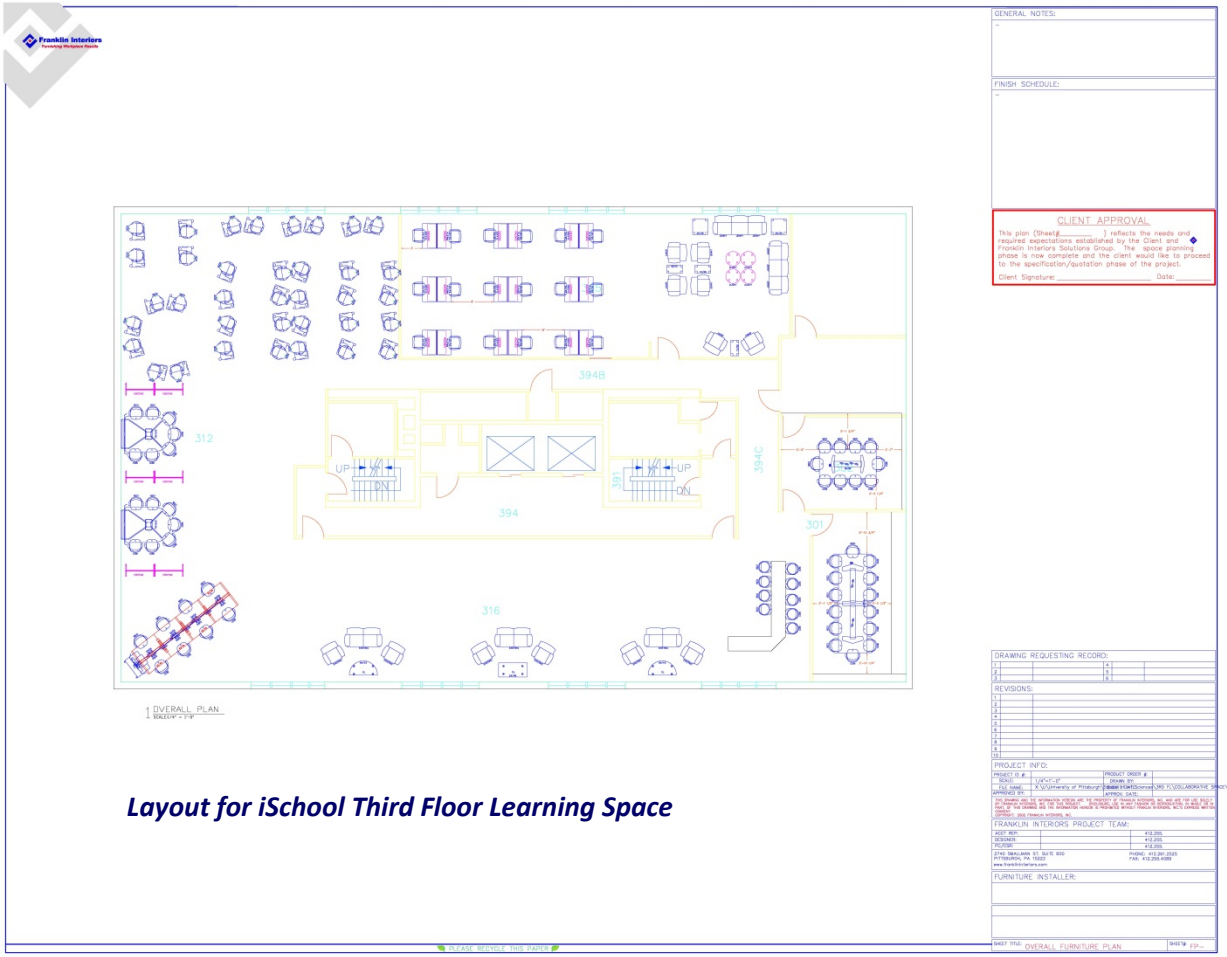
The faculty at the iSchool have spacious offices, providing adequate room to undertake research and meet with students and colleagues. Each faculty member has their own office, and many have separate research lab spaces. The iSchool has faculty offices located on the second, sixth, and seventh floors. The LIS faculty are located in offices in the sixth floor of the IS Building. On this floor, there are 13 offices for LIS Program faculty, 2 staff offices, and the iSchool Inclusion Initiative Office, and 4 offices for PhD students. Two offices are designated for use by Visiting Scholars. There is also an office for Dr. Peter Brusilovsky, Chair of the Information Science and Technology Program. The sixth floor also contains a conference room, a computing equipment/server room, several storage areas, and the space for the Embedded Librarian Initiative. Appendix SCH 10 provides a schematic of the sixth floor layout as of January 2013.

There are several distinct research labs throughout the iSchool building. Three have been completely renovated since 2007: the Telecommunications Networking Lab, the Geoinformatics Lab, and the Laboratory of Education and Research in Security Assured Information Systems (LERSAIS). The other labs provide research space for faculty and students working in usability, information retrieval and synthesis, personalized adaptive web systems, and spatial information. In AY 2012, two addition work spaces will be completed. There are large spaces on the third and eighth floors currently under construction to provide enhanced student work and study spaces.

The staff have offices that facilitate the completion of their assigned duties, and provide meeting and storage space. Most staff offices are located on the fifth floor, as part of the Dean's office. Student Services, External Relations, Constituent Relations, Distance Education, and Financial Aid and Accounting staff are located in fifth floor offices. Administrative staff are located in offices on the sixth and seventh floors, to be more accessible to program faculty and students.

In 2011, the University Library System (ULS) determined to incorporate subject-specific libraries into the main collection at Hillman Library in response to steadily decreasing use of the physical collections across the system, including those of the Information Science library (located on the iSchool's third floor). The iSchool, responding to faculty and student's increasing calls for collaborative study and research space, decided to repurpose the library as space dedicated to student collaboration and study; the redesigned space on the third floor will incorporate a number of enclosed meeting spaces with conferencing and collaboration technology. It will also feature refreshment facilities, comfortable seating, spaces for small-group teaching and seminars, and places where students can practice conference or classroom presentations. This repurposing of the library collections space is consistent

with trends among other information schools. The University of Maryland, for example, converted the CLIS Library several years ago to faculty and student research space.



Layout for iSchool Third Floor Learning Space

The iSchool's eighth floor had several computing labs which were no longer necessary as students have personal computing devices. Therefore, a smaller space will be set aside in AY 2012 to provide printing and scanning capabilities. The larger space will be devoted to PhD student use in research, meetings, and preparing for teaching.

The usage and design choices for these two spaces were made in consultation with iSchool faculty and students. In particular, students indicated that they wanted spaces in which they could study, work as groups, and work virtually. The two new student spaces provide quiet spaces, collaborative spaces, and technology-enhanced meeting/seminar rooms.

VI.3 Instructional and research facilities and services for meeting the needs of students and faculty include access to library and multimedia resources and services, computer and other information technologies, accommodations for independent study, and media production facilities.

As mentioned previously (See Standard VI.1), faculty and students have access to advanced high-end computing facilities provided by the University of Pittsburgh's CSSD group. In addition, research faculty and doctoral students can utilize PittGrid, an ongoing effort to create a supercomputer by aggregating unused computing resources across campus.

In the IS building, a new telecommunications networking lab was created on the eighth floor, in order to provide expanded hands-on learning and research capabilities in networking.

The University Library System provides references services through a variety of mechanisms including IM, text, phone, e-mail, or in-person. Users can take advantage of tutorials and library guides to obtain advice on search and retrieval from the numerous library collections. If logging in from a Pitt-designated IP address, students and faculty can seamlessly access the ULS's collections including 87,000 academic journals available online. The ULS recently implemented a new system for accessing electronic materials from off-campus, known as EZProxy. This interface permits online resources to recognize Pitt-authorized users and to allow access, even though the user may be logging on through a non-Pitt IP address. This enables the ULS to provide services to on-campus and online students. The ULS has assigned library professionals to each academic unit: the School of information Sciences has a primary library liaison, Susan Neuman, and a secondary library liaison, Clare Withers. These two library experts, graduates of the iSchool's PhD and MLIS programs, provide advice, in-class instruction, and one-to-one reference support to iSchool faculty and students. They also host office hours in the iSchool twice each week of the academic term, facilitating face-to-face interaction with faculty and students.

To supplement these library services, the iSchool introduced the Embedded Librarian Initiative (ELI) in Fall 2012. ELI provides face-to-face and online subject-specific reference and research services to students and faculty, through a service managed by Elizabeth Mahoney (lead faculty for the reference resources and services specialization in the MLIS program), supported by MLIS and PhD students. This initiative is currently being provided for the LIS core courses, but plans are to expand it to all degree and research programs.

The students in the MLIS program, particularly the APRM specialization, can utilize the Visual Media Workshop in the Department of the History of Art and Architecture, which is under development at this time. When it is complete, it will be much more than just a digital slide library. It will be a place where faculty, graduate students, and undergraduate students can all work to make the multimedia presentation of their academic work shine.

The mission of the Visual Media Workshop is to develop and encourage the creation of innovative methods for producing, disseminating, and preserving the multimedia presentation of academic work. To meet this goal, the Workshop will not only maintain a world-class collection of visual materials that supports the expansive teaching and research needs of the Pitt community, but will also promote the investigation and invention of new tools and new ways of thinking about the place of images—in any

medium, still or moving—in the work of the University. Special emphasis will be given to visual imagery that is unique to Pitt and that demonstrates the particular strengths of the exceptional research produced here.

The University has a unit devoted to instructional support, the Center for Instructional Develop and Distance Education (CIDDE). This unit provides instructional development, educational technology, and support services for teaching, both on-campus and online. CIDDE provides support for developing learning environments, expertise in instructional design and development, education in application of current and emerging instructional technologies, and providing creative services to support teaching and research. Faculty can seek professional course design advice and evaluation from the instructional designers at CIDDE, who will also help to address the particular challenges of designing courses for the online environment.

For the MLIS: Pitt Online program, the iSchool has partnered with CIDDE in the design and production of courses. For any course, these designers can assist faculty in the efficient and effective use of CourseWeb, the BlackBoard course management system utilized at the University of Pittsburgh. CIDDE also provides rich media, event, and educational technology support services.

VI.4 The staff and the services provided for a program by libraries, media centers, and information technology facilities, as well as all other support facilities, are sufficient for the level of use required and specialized to the degree needed. These facilities are appropriately staffed, convenient, accessible to the disabled, and available when needed, regardless of forms or locations of delivery of the school's program.

The iSchool has two full-time professional information technology staff members and seven student videographers to support the recording of online course work. As the School transitions to Pitt Online, the faculty will use the University's professional audio and video studios to produce online content for courses.

The School of Information Sciences has developed outstanding computer labs for education and research. Computing resources for the exclusive use of iSchool graduate students, faculty, and staff include a Sun UltraSPARC cluster with associated RAID array, Sun workstations, and Core i7-based Windows 7 system PCs. Computing equipment throughout the building is connected via a LAN (local area network), which employs a fiber backbone utilizing Cisco 10Gb ethernet technology. Software in the PC labs is shared through a Microsoft server. Peripheral hardware, including laser printers, scanners (flat-bed and slide), and CD-ROM read-write drives, also contributes to this rich environment for learning, teaching, and research.

As a Center of Academic Excellence in Information Assurance Education (CAE/IAE) designated by the National Security Agency for 2004-2012, the School was eligible to apply to Cisco Systems for their

competitive equipment donation program. In May, 2005, equipment worth $129,472 was awarded to the School of Information Sciences for use by the faculty and students working in the area of information assurance. The new equipment has been used to significantly extend the existing security laboratory facilities. Included within this research environment are clusters of Dell servers employed to simulate the security issues related to grid and cloud computing scenarios. Forensics equipment in the form of drive write blockers, data recovery software, and malware deconstruction utilities are available to support analysis of the modifications made by suspicious software when applied to test bed computers. Additionally, an IPv6 compatible mobile applications test bed has been created in order to evaluate the security vulnerabilities related to the large scale deployment of personal device technology employing this protocol.

The Geoinformatics Lab is equipped with state-of-the-art geoinformatics hardware and software. The hardware includes a high-end server, PDAs equipped with large-capacity memory expansion and Global Positioning System (GPS); 50 GPS receivers; a digitizing tablet; a Sony DV camcorder; a digital camera; two projectors; a scanner, a portable 60" x 48" wall unit Teamboard; and two printers (one color). The lab supports a suite of GIS, GPS, remote sensing, and database management system software packages and tools, e.g., ESRI's GIS projects, ENVI, and Oracle 9i. Due to the computationally intensive nature of creating spatial databases, the laboratory employs a grid-computing environment in order to distribute and process spatial geometry information data sets in a timely fashion.

The Usability Laboratory has as its mission the investigation of human-machine interaction, in particular, developing strategies, methods, and techniques for making machines easier for people to use. Work at the laboratory has focused on graphical user interfaces, but current projects and interests extend research into the areas of human-robot interaction and multi-sensor based ubiquitous computing. The lab consists of two physically isolated rooms with an observation window in between. The main lab is equipped with networked Core2Duo PCs with monitors and high-end NVidia GPUs for use in group and/or individual computer interaction experiments. The observation room contains a dual quad processor workstation specialized for nonlinear editing and server functions. Other equipment includes a 70-inch SmartBoard interactive whiteboard with 2 projectors, video production software, 3-D modeling tools, and CaveUT software. A 17" Tobii eye-tracker serves as a standoff eye-tracking device built into a 17" TFT monitor. The hardware and associated software will enable more accurate behavior model development.

The Telecommunication's program’s research and teaching laboratory is housed on the first and eighth floors of the IS building. It consists of a freely reconfigurable networking environment within which students can create and examine the performance of networked systems when subject to different degrees of loading using various network protocols. The environment was recently upgraded through the addition of ten traffic generating and analysis computer systems, as well as Cisco switch, firewall, and router gear that support instructional activities. The lab also hosts experimental wireless access points, Voice over IP technology, and will soon contain wide area PlanetLab systems to facilitate research involving the development of new network services.

In the LIS Program, Christinger Tomer has created a digital learning resources repository of software for information technology and digital library courses. Daqing He and Christinger Tomer have utilized the Cloud computing services provided by Amazon to support courses in information technology and digital libraries.

The University's Center for Instructional Design and Distance Education (CIDDE) provides instructional design and educational technology support for teaching and learning at the University of Pittsburgh. CIDDE employs 48 professional and administrative staff, 13 of whom are instructional designers/technologists

Pitt's Computing Services and Systems Development Department (CSSD) provides computing labs, computing support, network capabilities, and systems design and development for the entire university community. Eight campus computing labs are available to students at the Pittsburgh campus, as well as computing labs in individual academic units. The labs offer more than 550 computers running Windows, Macintosh, and Linux. Computers are equipped with more than 100 of the latest software applications and tools. Scanners are available to be signed out and used in each lab. Printing services include high-speed print capability in all facilities and color laser print capability in the David Lawrence Hall computing lab. Self-Service Printing stations are available in all labs and at several additional locations across campus. CSSD provides the IT backbone for the entire university community including computing, e-mail, Web sites and access, and academic technology. CSSD, with 198 employees, offers 24-hour technology support to faculty, staff and students.

The ULS is the 26th-largest academic research library in all of North America and the 16th-largest among the prestigious libraries of the Association of American Universities. It provides a large array of innovative, world-class services to faculty, staff and students. In addition to the collections, the ULS offers services including D-Scholarship, the University's institutional repository for research outputs; electronic dissertation and thesis production; electronic journal publishing; an archives service center; and a preservation department. ULS employs more than 185 librarians and collections professionals.

VI.5 The school's systematic planning and evaluation process includes review of the adequacy of access to physical resources and facilities for the delivery of a program. Within applicable institutional policies, faculty, staff, students, and others are involved in the evaluation process.

The School's annual plan to the Provost, developed under the aegis of the SIS Council, addresses the physical resources necessary to support the teaching, learning, and research missions of the School. The SIS Council is comprised of staff, students and faculty representatives. The program chairs and faculty propose allocations of space and other physical resources to meet their projected needs. The programs' needs are considered in light of the School's long-term goals and then incorporated into the Annual Plan.

The SIS Council, in consultation with the deans and the Director of Administration, determined the reuse and design of the new student work spaces on the iSchool's third and eighth floors. The Council received significant input from students, who participated in three focus groups to garner their perspectives on use of the facility and designed accoutrements. This Council also reviews the allocation of research space throughout the facility.

The input from these various groups truly drove the design of the new facilities on the third and eighth floors of the iSchool. Students and faculty requested spaces appropriate for working in small groups and for spaces with the necessary quiet for contemplative studying. The third floor space offers both – the front of the space offers furnishings and multi-media technology to support working on team projects. The rear section of the space is designated as a "quiet space" and will be furnished with individual study carrels or solo seating. The faculty specifically requested enclosed spaces to permit research meetings, including the technology to work with research partners across the globe. The students asked for spaces in which they could practice presentations or small-group lectures. The Third Floor space will provide for both. All contributors to the dialogue about use for the space noted a need for numerous electrical supplies, for re-configurable furnishings, and multi-media capabilities. The Third Floor space will feature mediascape conference tables, which are designed for a "walk-up and connect experience" and which allow for people to access and share information through multiple-input capabilities.

The Eighth Floor space will feature a new data center, which will facilitate a secure computing environment for both research and learning for faculty and students. The students who participated in the focus groups expressed a need for space that would accommodate 10-15 people for seminars that would also have conferencing capabilities (for PhD defenses, for example). Such are planned for in the redesign of the eighth floor. The space will also offer students access to scanners, printers, and other office tools. At this time, that floor is under construction to repair and upgrade the infrastructure including air conditioning, new restroom facilities, power supplies and sound dampening. Once these infrastructure improvements are done, the School will commence on the space furnishings and finishes.

The iSchool's Board of Visitors, which meets annually, addresses long-term strategic goals of the School and advocates on behalf of the School to the Provost. In 2011, the BOV expressed its doubt about the suitability of the current facility to support future growth of the iSchool. The group noted that, with the expansion of the undergraduate program and select research efforts, the IS building would soon be too small to house the required classrooms and research labs. Unfortunately, the current economic decline and cuts to state funding preclude planning to purchase or build a new facility for the iSchool.

As the School looks forward to expanding its signature research areas, the Council and program faculty will be consulted on how to incorporate these efforts into the existing iSchool facility.

Conclusion

The School of Information Sciences is pleased to present this Program Presentation to the Committee on Accreditation. The School administration, SIS Council and program faculty have reviewed the document and feel that it provides a comprehensive overview of the MLIS program. The presentation offers a frank discussion of the challenges faced by the program, the opportunities taken to refine the curriculum and learning experiences to reflect the contemporary Information Professions, and the progress made in ensuring the success of students, faculty and alumni.

There are several themes that are interwoven in this report. The first is that the iSchool has created an academic culture that supports continual assessment and refinement of administrative policies and procedures, degree programs and the learning environment. Persistent evaluation and reflection ensure that educating students and fostering research remain the prime drivers of all academic and programmatic activities.

The second is that preparing students for challenging careers in the Information Profession calls for continuous enhancement of the academic programs. Throughout the last six years, the School and faculty have worked diligently to enrich the curriculum, delivery methods, and out-of-the-classroom support for students. Specializations were developed to provide students with skills, knowledge and understanding particular to different types of library and information services or resources. Great progress has been made in augmenting the in-class sessions with opportunities to gain practical experience through the Pitt Partners Program and Field Experience courses. The School has transitioned from an in-house blended delivery method of offering online courses to a University-supported award-winning platform. Perhaps most importantly, the School has carefully directed new faculty hiring efforts to bring on educators and researchers who have multidisciplinary backgrounds that will broaden the curricular and research offerings of this iSchool.

The predominant theme of this Program Presentation is transformational change. It addresses the iSchool's groundbreaking academic endeavors in areas such as Cyberscholarship, infusing diversity and inclusivity into the curriculum, and exploring leading-edge information technologies (including lab-based learning exercises and a specialization in Digital Libraries). It documents the organizational changes made to better position the MLIS program and the School to address increasingly complex learning and working environments. This presentation discusses shifts in student demographics, expectations and educational backgrounds which impact program offerings and pedagogical approaches used to prepare students for 21st century information careers.

Transformational change is happening in all facets of life and learning. Technological advances have changed how people communicate, how they work, how they learn, and how they move through daily

life. Information, as a result of those technological advances, has become an integral part of business, government, and society. Learning to organize and utilize the overwhelming amount of information now being created and made available is crucial to successfully meeting challenges in any field of endeavor – from medicine to marketing, from business to international development work, and from documenting governmental actions to helping children to learn to read.

Throughout most of its existence, the School has not only reacted to transformational change, but actually played a role in leading such change. From its beginnings as a training school for children's librarians, the School has created internationally-renowned research and academic programs in information assurance, archival preservation and designing trustworthy networks – in addition to its sterling reputation for programs on resources and services for Children and Youth and other library specialties, notably in medical and health sciences. The School's innovative research and academic programs have been supported by prestigious organizations such as the National Science Foundation, the Department of Defense, the Andrew W. Mellon Foundation, and the Institute for Museum and Library Services.

The School was one of the founding members of the iSchool Caucus, an international consortium of Information Schools which has changed the face of higher education and academic research and development in the information field. A decade ago, the term iSchool was unheard of – today, this reference appears in both higher education and popular media. The School is spearheading a national effort to increase diversity in the Information Sciences and the Information Professions with the iSchool Inclusion Institute (i3). The School was a leader in online education, being one of the first (in 2000) to offer an online MLIS program, as well as one of the first participants in the WISE consortium, through which it continues to attract significant numbers of students from other schools of library and information science.

And the changes are not ending. Even as this Program Presentation was being prepared, the LIS program faculty were undertaking a review of the entire curriculum and identifying changes for the information, library and archival professions which must be reflected in any curricular revisions to ensure that graduates are prepared to lead and shape the field over the coming decades. It is considering how to expand research and academic offerings to reflect the ever-evolving nature of the Information disciplines, how to incorporate data-infused curricula across programs, how to more effectively merge experiential and hands-on learning with a sound theoretical foundation, and how to enhance the core courses in light of the dramatic transformation of information, library and archival services. Other program enrichments are being explored, including elective courses, co-curricular events and activities, and expanded continuing professional education and development opportunities. Thus, the on-site External Review Panel may see a different set of academic offerings developed and promoted by the time of their proposed visit in March 2013.

The School has not only led change, but produced leaders who have – and will continue to – change the face of librarianship and archival science. One of the most important barometers of our success is the impact that our alumni have had on the Information Professions. This is apparent from the many honors and recognitions bestowed upon them. By no means should this list be considered comprehensive, but

it does provide an indication of the many contributions that they have made to their employers, their professions, and to society.

Cynthia Richey was named a University of Pittsburgh Legacy Laureate for 2012. The Legacy Laureate Program at the University of Pittsburgh was launched in 2000 to honor University of Pittsburgh alumni for their outstanding personal and professional accomplishments. Richey is the Director of the Mt. Lebanon Public Library in Pittsburgh. Mrs. Richey has served as President of the Association for Library Service to Children, President of the Pennsylvania Library Association, Chair of the Pennsylvania Governor's Advisory Council on Library Development, and on the prestigious Newbery and Caldecott Award committees. Richey received a 2006 New York Times Librarian Award and received the School of Information Sciences Distinguished Alumni Award in 2007, among other numerous awards.

Rebecca Morris (MLIS 2004 and PhD 2011) was interviewed by the Harvard Graduate School of Education EdCast, a podcast about issues in education. An Assistant Professor at Simmons College, Morris talked about her work at the library school there and today's school libraries and librarians. http://www.gse.harvard.edu/news-impact/2012/07/harvard-edcast-stacking-up-school-libraries/ .

Vaunda Micheaux Nelson (MLS 1988) won the 2010 Coretta Scott King Book Award from the American Library Association (ALA) for her book, *Bad news for outlaws: The remarkable life of Bass Reeves, Deputy U.S. Marshal*.

Stacey Coughenour Aldrich (MLS 1992) was named State Librarian of California on November 13, 2009 by Governor Arnold Schwarzenegger.

Mark Vrabel (MLS 1992) was named a Mover and Shaker by ***Library Journal*** magazine in 2008. Vrabel is an information resources supervisor with the Oncology Nursing Society in Pittsburgh and was recognized for keeping nurses apprised of research evidence on clinical practices for cancer patients. He is an active member of the Medical Library Association (MLA) and its specialist sections and in 2011 received the MLA Nursing and Allied Health Resources Section Award for Professional Excellence.

Alexia Hudson (MLIS 2005) has been elected to the National Executive Board of the American Library Association (ALA) for a three-year term. Alexia is a Reference Librarian at Abington College Library, Penn State Abington.

Elaine Zelmanov (MLIS 2005) was appointed as chief of staff for Pittsburgh City Council member, Patrick Dowd.

Elizabeth Davis (MLIS 2006) was selected to receive the Pennsylvania Library Association's New Librarian Honors Award for 2010. Elizabeth has been a librarian in Scranton Public Library's Children's Library since 2007. She has twice chaired the Library's "Scranton Reads" program and currently serves as Chair of the Emerging Technologies Committee.

Paula Kelly (MLIS 2009), Director of the Whitehall Public Library, directed the English as a Second Language Literacy Program at Whitehall, aka the LEARN Bus, which was selected as a 2011 recipient of the Marietta Y. King and Alberta Walden Still Diversity Award for Public Library Service to Older Adults in a Diverse Community.

The School of Information Sciences will continue to provide academic programming and a learning environment that fosters the next generation of leaders in the Information Professions. In order to do so, the iSchool will continue to enhance its degree programs, to provide appropriate learning and research resources and facilities, and to utilize sound policies and procedures in administering the academic programs. As society enjoys an ever-increasing amount of information and access to more sophisticated technology tools, the faculty and administration of the School and the University are dedicated to providing the curriculum, faculty expertise, learning opportunities and environment necessary to foster student success and to meet the information needs of society.