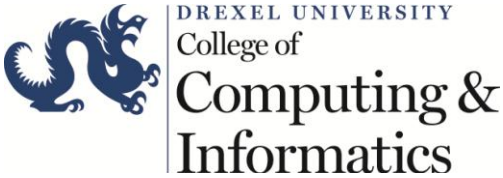


Master of Science in Library and Information Science Program

College of Computing & Informatics

Drexel University

Self-Study for ALA Accreditation

August 21, 2017

DREXEL UNIVERSITY
College of
Computing &
Informatics

REQUIRED DATA

1. The full name of the unit organized and maintained by the institution for the purpose of graduate education in library and information studies. This unit is referred to in the Introduction to the *Standards* as the "school of library and information studies":
Department of Information Science, College of Computing & Informatics

2. The name and a brief description of the degree program(s) being presented for accreditation by the COA:
Master of Science in Library & Information Science Program
The Master of Science in Library & Information Science (MSLIS) program originated in 1892, within months of the founding of Drexel University in 1891, and remains the second oldest of its kind in America. Of the continuously accredited programs, our program is the oldest as it having been accredited since 1942. In 2000, the MSLIS degree was first offered in online asynchronous mode. Drexel University runs on 10-week academic quarters, four per year. A minimum of 45 credit hours is needed to complete the MSLIS degree program. Courses are three credits each, meaning that MSLIS students must complete a minimum of 15 courses to complete the degree. New students are admitted in the fall and spring quarters. Most students take two courses per quarter and complete the degree program in about two or two and a half calendar years.

3. The name and current title of the dean of the school, and, if applicable, the chair of the LIS program
Dr. Yi Deng, Dean, College of Computing and Informatics
Dr. Ellen Bass, Head, Department of Information Science (term ends on 8/31/2017)
Dr. Xia Lin, Head, Department of Information Science (term begins on 9/1/2017)

4. The full name of the institution, with names and titles of the chief executive officer (CEO) and the CAO, including the institutional administrator to whom the dean of the school reports:

Drexel University

John A. Fry, President

Dr. M. Brian Blake, Provost and Executive Vice President for Academic Affairs

5. The name of the regional accrediting agency that accredits the institution:

Middle States Commission on Higher Education

6. The current status of the institution with regard to regional accreditation

Reaffirmed, 2012.

Next self-study evaluation: 2021-22

7. The title and version of the Standards addressed in the Self-Study:

Standards for Accreditation of Master's Programs in Library and Information Studies, 2015

DREXEL UNIVERSITY
College of
Computing &
Informatics

TABLE OF CONTENTS

SYNTHESIS AND OVERVIEW

LIST OF ABBREVIATIONS

AAAS:	American Association for the Advancement of Science
ACIST:	Advanced Certificate in Information Studies and Technology
ACM:	Association for Computing Machinery
ACRL:	Association of College and Research Libraries
ADH:	Associate Department Head

DREXEL UNIVERSITY
College of
Computing &
Informatics

AEFIS:	Academic Evaluation, Feedback, and Intervention System
ALA:	American Library Association
ALISE:	Association for Library and Information Science Education
ASIST:	American Society for Information Science & Technology
BA:	Bachelor of Arts
BCC:	Burlington County College
BS:	Bachelor of Science
BSCS:	Bachelor of Science in Computing & Security Technology
BSCST:	Bachelor of Science in Computing and Security Technology
BSDS:	Bachelor of Science in Data Science
BSI:	Bachelor of Science in Informatics
BSIS:	Bachelor of Science in Information Systems
BSSE:	Bachelor of Science in Software Engineering
CAS:	Certificate of Archives Specialist
CCI:	College of Computing & Informatics
CES:	Core Enterprise Systems
CSCW:	Computer-supported Cooperative Work and Social Computing
CSLIS:	Center for the Study of Libraries, Information & Society
CVDI:	Center for Visual and Decision Informatics
DCC:	Delaware County Community College (location)
Drexel HFES:	Drexel University Human Factors and Ergonomics Student Chapter
DSCI:	Decision Science (major)
DULASA:	Drexel University Library & Archives Student Association
DUO:	Drexel University Online
EMSS:	Enrollment Management & Student Success
ExCITe:	Expressive and Creative Interaction Technologies Center
FARPP:	Faculty Annual Report and Performance Plan
GRE:	Graduate Record Examination
GSA:	Drexel Graduate Student Association

DREXEL UNIVERSITY
College of
Computing &
Informatics

HI:	Healthcare Informatics (major)
IEEE:	Institute of Electrical and Electronics Engineers
IELTS:	International English Language Testing System
IMAT:	Informatics (major)
IMLS:	Institute of Museum and Library Services
INSPIRE:	Initiative for New Scholarship, Pedagogy, Innovation & Research in Education
ISSI:	International Society for Scientometrics and Informetrics
ISYS:	Information Systems (major)
ITS:	Instructional Technology Support
JASIST:	Journal of the American Society for Information Science and Technology
MCC:	Montgomery County Community College (location)
MLA:	Medical Library Association
MRC:	Metadata Research Center
MS:	Master of Science
MSCS:	Master of Science in Computer Science
MSC:	MS in Cybersecurity
MSHI:	Master of Science in Health Informatics
MSIS:	Master of Science in Information Systems
MSLIS:	Master of Science in Library and Information Science
MSNSM:	Master of Science in National Security Management
MSSE:	Master of Science in Software Engineering
NCDS:	National Consortium for Data Science
NCWIT:	National Center for Women & Information Technology
NIH:	National Institutes of Health
NSF:	National Science Foundation
PAR:	Program Alignment & Review
PhD:	Doctor of Philosophy
PLA:	Pennsylvania Library Association
RCM:	Responsibility Center Management

RDA: Research Data Alliance

SAA: Society of American Archivists

SAT: Saturday Scholar (program delivery mode, other examples of program delivery mode are face-to-face and online)

SCAA: Senate Committee on Academic Affairs

SLA: Special Libraries Association

STAR: Students Tackling Advanced Research

TOEFL: Test of English as a Foreign Language

WES: World Education Service

LIST OF APPENDIX

INTRODUCTION

STANDARD I: SYSTEMATIC PLANNING

STANDARD II: CURRICULUM

DREXEL UNIVERSITY College of Computing & Informatics

Appendix II.2	Old Core Course Syllabi
Appendix II.3	Syllabi for New MSLIS Core Courses
Appendix II.4	MSLIS Course Revision Spreadsheet
Appendix II.5	MSLIS Course Mapping to ALA Competences
Appendix II.6	MSLIS Program Learning Outcomes (2016 update)
Appendix II.7	Sample Curriculum Committee Notes
Appendix II.8	Bibliography to Support the MSLIS Program Revision
Appendix II.9	Other Schools' Program Outcomes
Appendix II.10	MSLIS Degree Revision Task Force Presentation to Faculty, March 17, 2015
Appendix II.11	MSLIS Degree Curriculum Committee Report on Proposed Program Revision
Appendix II.12	MSLIS Core Course Learning Outcomes Mapped to the MSLIS Program Learning Outcomes
Appendix II.13	MSLIS Core Course Learning Outcomes Mapped to the ALA Core Competences
Appendix II.14	SCAA Proposal for MSLIS Program Revision, November 26, 2016
Appendix II.15	MSLIS Concentrations, Course Enrollment AY2010/11-AY2016/17
Appendix II.16	E-mail to Students regarding End of MSLIS Concentrations
Appendix II.17	Template for Graduate Advisor Training Sessions
Appendix II.18	Independent Study Proposal Form
Appendix II.19	INFO893 Syllabus
Appendix II.20	Course Evaluation Form
Appendix II.21	AY2017/18 Projected Course Schedule
Appendix II.22	MSLIS Career Paths Advising Sheet

STANDARD III: FACULTY

Appendix III.1	List of Faculty
Appendix III.2	Faculty CVs
Appendix III.3	Tenure and Promotion Policy
Appendix III.4	Teaching Faculty Policy

DREXEL UNIVERSITY College of Computing & Informatics

Appendix III.5	Mentoring Program for Junior Faculty
Appendix III.6	Faculty Publications
Appendix III.7	Funded Research Projects
Appendix III.8	Summary of Citation Analysis
Appendix III.9	High-Impact Service
Appendix III.10	Sabbatical Activities
Appendix III.11	Faculty Evaluation Form
Appendix III.12	CCI Bylaws

STANDARD IV: STUDENTS

Appendix IV.1	CCI Graduate Studies Fact Sheet
Appendix IV.2	Student Scholarships for the College of Computing & Informatics
Appendix IV.3	Drexel University Policies
Appendix IV.4	Drexel University College of Computing & Informatics (CCI) Advising Syllabus
Appendix IV.5	MSLIS Learning Assessment Plan, 2013-2018
Appendix IV.6	Assessment Procedure for Course Coordinator
Appendix IV.7	MSLIS Learning Assessment Report: INFO 520 and INFO522
Appendix IV.8	MSLIS Learning Assessment Report: INFO 521 and INFO640

STANDARD V: ADMINISTRATION, FINANCES AND RESOURCES

Appendix V.1	Four Samples of College Assembly Agendas
Appendix V.2	One Sample of Faculty Retreat Agenda, Informatics Department
Appendix V.3	Five Samples of IS Department Meetings
Appendix V.4	Five Samples of Drexel Board of Trustees Meeting for the College
Appendix V.5	CCI Strategic Planning Committee Agendas
Appendix V.6	Faculty Technology Resource List
Appendix V.7	Drexel Licensed Software List

LIST OF TABLES

LIST OF FIGURES

DREXEL UNIVERSITY
College of
Computing &
Informatics

INTRODUCTION

The College of Computing & Informatics (CCI) at Drexel University seeks renewed accreditation from the American Library Association (ALA) for its Master of Science (MS) in Library and Information Science (LIS) degree program.

Overview of the University

Drexel is a comprehensive, global research university ranked among the top 100 in the nation. With approximately 26,000 students, Drexel is one of America's 15 largest private universities.

Drexel has built its global reputation on core achievements that include:

- *Leadership in experiential learning through Drexel Co-op.*
- *A history of academic technology firsts.*
- *Recognition as a model of best practices in translational, use-inspired research.*

Founded in 1891 in Philadelphia, Drexel now engages with students and communities around the world via:

- *Three Philadelphia campuses and other regional sites.*
- *The Academy of Natural Sciences of Drexel University, the nation's oldest major natural science museum and research organization.*
- *International research partnerships, including China and Israel.*
- *Drexel Online, one of the oldest and most successful providers of online degree programs.*

Drexel is one of Philadelphia's top ten private employers, and a major engine for economic development in the region. Drexel is committed to being the nation's most civically engaged university, with community partnerships integrated into every aspect of service and academics.

Drexel's ongoing strategic plan, "Transforming the Modern Urban University," guides the University's 21st-century trajectory.

DREXEL UNIVERSITY
College of
Computing &
Informatics

Overview of the College and MSLIS Program

Our College is known for innovative research and technology-driven education. Our diverse faculty (including degrees granted in over ten disciplines) have focused on multidisciplinary research and collaboration. At the beginning of AY 2013-14, our College (formerly known as The *iSchool* at Drexel, College of Information Science & Technology) reorganized to form the College of Computing & Informatics (CCI).

The College consists of two departments: the Department of Computer Science and the Department of Information Science. These two departments are equivalent in terms of resource allocation. Resource allocation for each department is allocated in order to fully meet program department needs. The MSLIS program resides in the Department of Information Science.

The College was formed after a University initiative, Program Alignment & Review (PAR) which launched in 2012, found computing-related courses and programs to be spread across the University in several departments and colleges. The PAR report suggested bringing them together in one college. As a result, CCI was founded in 2013. The formation of the College reflects the growing role of computing and informatics in all sectors of the economy. A rich, coherent academic program contributes to the development of the local innovation community, which, in turn, strengthens links to regional industry, government and not-for-profit entities.

The College excels in a broad range of multidisciplinary research and education modalities in computing and informatics by uniting the former College of Information Science and Technology, the Department of Computer Science in the College of Engineering, and the Department of Computing and Security Technology in the Goodwin College of Professional Studies which is an academic unit at Drexel University. This expansion deepens and further broadens our LIS program, which lies at the center of CCI.

The CCI Executive Council conducts the administrative affairs of the College. The Executive Council currently consists of the dean (as chair), academic unit leaders (department heads) for each department, and two senior associate deans. Each department handles issues such as tenure

and promotion, annual performance reviews, and teaching and service assignments for its associated faculty members.

Research at the College spans a wide range of areas and topics related to computing and informatics. This research can be categorized into the six major areas in the following way: Computer Science, Human-Centered Computing, Software & Systems Engineering, Library & Information Science, Computer Security, and Informatics& Data Science.

Our MSLIS program originated in 1892, within months of the founding of the University in 1891, and remains the second oldest of its kind in America. Of the continuously accredited programs, our program is the oldest as it has been accredited since 1942. In 2000, the MSLIS degree was first offered in online, asynchronous mode. Completion of the MSLIS program requires a total of 45.0 credits, including the six core courses totaling 18.0 credits. Drexel University runs on 10-week academic quarters, four per year. Most students complete the degree program in about two or two and a half calendar years. As of spring AY 2016-17 the College has a total number of sixty-seven full-time and thirty-three adjunct faculty members. Of those, thirty-four full-time and twenty adjunct faculty members are in the Department of Information Science.

We consider library and information science (LIS) broadly and inclusively. Our integrated curriculum with multiple degrees in the College reflects our perspectives on information science. In this Self-Study, we outline the characteristics that define our program, and we present our efforts to position ourselves as a leader /pioneer in the LIS field by providing an innovative education to our students who are able to empower citizens in this rapidly changing information and technology-centered world.

The program is ranked eleventh nationally in the most recent 2017 *U.S.News and World Report* rankings for Library and Information Science programs as a whole. In terms of within-degree specializations, the program is ranked fourth for Information Systems, third for Health/Medical Librarianship, seventh for Services for Children and Youth and seventh for Digital Librarianship.

Vision, Goals, and Program Learning Objectives

A College-wide strategic planning committee was organized in fall 2015. The Committee has conducted a thorough analysis of strengths, weaknesses, and opportunities by consulting various constituencies. The Strategic Plan 2016-21, *Building Connected Lives*, was approved by CCI Faculty in June 2016 (see Appendix i.1). The Plan articulates strategic goals for CCI to build its identity through four key areas of investment: Research Excellence, Education Excellence, Institution Building, and Community Engagement.

As a College, the faculty and staff embrace a vision and mission that we believe reflects the values and expectations of Drexel University as well as our external stakeholders (alumni, employers, and society as a whole). The MSLIS program inherits its vision, mission, and goals from the College. While each component of the MSLIS program is guided by the overall vision and mission and goals of the College, the curriculum is derived from the outcomes that have been identified as central to our educational endeavors. The MSLIS program reviews its program learning objectives every other year. The current revised program learning objectives were a product of an extensive, systematic planning process of MSLIS curriculum reform over a three-year period. Throughout the process, we fully engaged with our program's stakeholder groups by seeking their input and suggestions. It was approved by the IS faculty in June 2016. The current approved program learning objectives are publicly available in the University program/course catalog at:
http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/#evaluationstext/ [under Evaluations]

The evolution of the College's vision, mission, goals, and the MSLIS program learning objectives are discussed in detail in reference to Standard I: Systematic Planning. The three-year planning and revision process of MSLIS program learning objectives is also discussed fully in reference to Standard II: Curriculum.

DREXEL UNIVERSITY
College of
Computing &
Informatics

Multiple Degrees in the College and MSLIS Enrollment

The College offers several degree programs at the graduate level and at the baccalaureate level. In addition to the MSLIS, the College currently offers five bachelor's degrees (BS/BA in Computer Science, BS in Information Systems (BSIS), BS in Computing & Security Technology (BSCS), BS in Data Science (BSDS), and BS in Software Engineering (BSSE) as well as seven graduate degrees (MS in Computer Science (MSCS), MS in Health Informatics (MSHI), MS in Cybersecurity (MSC), MS in Information Systems (MSIS), MS in Software Engineering (MSSE), PhD in Information Studies, and PhD in Computer Science). Graduate students can elect a dual MS (MSLIS and MSIS). Undergraduates with a high GPA can elect the accelerated BS/MS track, which allows them to complete both degrees within five years.

The evolution of the College's name and degree program since the last ALA accreditation occurred in 2010 is presented below (Table i.1).

Table i.1 Evolution of the College's Name and Degree Programs

Date	Name of School	Degrees Offered
2013	The College of Computing & Informatics	MSLIS, PHD, MSIS, MSSE, MSHI, MSCS, MSC, BS/BA, BS/MS dual degree Specialist and Advanced Certificates, Post-Master's Study Program
2016		MSLIS, PHD, MSIS, MSSE, MSHI, MSCS, MSC, BS/BA, BS/MS, BS in Data Science (BSDS) BS in Computing & Security Technology (BSCST) Specialist and Advanced Certificates, Post-Master's Study Program

The College has changed over the years but the MSLIS degree is the flagship degree in the College. As in the national trend, MSLIS enrollment has been decreasing (See Chapter 4 (Students)), although enrollment in the MSLIS shows the highest rate among all graduate degree programs in the College. The table below illustrates the recent enrollment data (AY 2016) across all graduate degree programs at the College. HC (Head Count) is a distinct count of students

regardless of their status as full-time or part-time. FTE (full-time equivalent) measures registration by all students based on the number of credits they are taking. For graduate students, 9 credits = 1 FTE.

Table i.2 MSLIS Enrollment

				201615		201625		201635	
Level Code	**Degree Code 1**	**Major Code 1**	**Campus Code**	**Census HC**	**Reg FTE**	**Census HC**	**Reg FTE**	**Week 2 HC**	**Reg FTE**
GR	GR Certificate - CS Department			8	4	6	3.4	12	5
GR	MSCS	CS	ONL	25	10.3	25	11	25	9.3
GR	MSCS	CS	UC	31	25.4	26	20	16	11.7
GR	MSSE	SE	ONL	15	6.3	16	7	15	6
GR	MSSE	SE	UC	3	1.7	3	1.3	2	1
GR	PHD	CS	UC	38	35.3	39	36	38	34.7
GR CS Department Total				**120**	**83**	**115**	**78.7**	**108**	**67.7**
GR	GR Certificate - IS Department			13	4.2	8	2.7	6	3
GR	MSHI	HI	ONL	31	14	29	15	31	16.7
GR	MSIS	ISYS	ONL	45	22.7	38	18.7	37	19.7
GR	MSIS	ISYS	UC	57	45	51	39	62	50.3
GR	MSLIS	LIS	ONL	184	118	169	106.3	161	102
GR	MSLIS	LIS	UC	17	13.3	15	9.3	19	13.3
GR	MSNSM*	NSM	ONL	9	4.3	7	3.7	9	4.7

GR	PHD	INFO	UC	40	30	39	29.1	35	26.8
GR IS Department Total				**396**	**251.5**	**356**	**223.8**	**360**	**236.5**
GR CCI Total				**516**	**334.5**	**471**	**302.5**	**468**	**304.2**

*Note: NSM is the MS in National Security Management; our College no longer admits students to this program.

Appendix i.2 presents enrollment data at the College from AY 2014-16.

Explanation of the Process of Preparation of the Self-Study

The ALA Accreditation Committee members created the Self-Study with support provided by the administrative staff, the Information Science department head and the Executive Council of the College.
The ALA Accreditation Committee consists of:

Dr. Jung-ran Park, Associate Professor, Chair and Primary Contact
Dr. Denise E. Agosto, Professor, Program Director, MS in Library and Information Science; Executive Director, The Center for the Study of Libraries, Information, & Society
Dr. David Fenske, Dean Emeritus and Professor
Dr. Jane Greenberg, Professor, Director, Metadata Research Center
Dr. Xia Lin, Professor
Dr. Erjia Yan, Assistant Professor
Mr. Stefan Jewett, Administrative Assistant (professional staff member)

The Committee met regularly. Faculty and professional staff were kept informed of the progress of the Self-Study development through e-mail communication as well as department meetings on a regular basis.

Drawing upon members of existing stakeholder groups for the College, an Accreditation Advisory Board was established. The Advisory Board reviewed the Self-Study documents, such as outlines and drafts of all five standards. The Committee invited the Board members to the campus on January 10, 2017, and discussed various issues in relation to the strategic direction of the College and LIS curriculum in addition to the development of the Self-Study (see agenda and meeting notes in Appendices i.3 and 2.13 respectively). Discussion has continued through e-mail communication, and the board members provided the Committee with their insights and feedback on future curriculum development of the LIS program. Standards II.6 & 7 (Curriculum) presents this further.

The current members consist of the following:

- An officer of the College's alumni association: Joseph Parsio, Head of Access Services, University of Pennsylvania
- Students
    - Officer in the Drexel University Library and Archives Student Association: Julie Randolph, Vice President

- Employers (representative from an academic, a public, a special library, and other information setting)

    - Academic library: Steven Bell, Associate University Librarian for Research & Instructional Services, Temple University

    - Public library: Christine Caputo, Chief, Public Service Support, The Free Library of Philadelphia

    - Special library: Andrew Sather, Deputy Director/Assistant Director for Technology Services, Jenkins Law Library, Philadelphia

  - Other information setting: Ann Norman, State Librarian/Director, Delaware Division of Libraries
- Adjunct faculty member: Jennifer Sweeney, Drexel University

Each ALA Accreditation Committee member took primary responsibility for developing the assigned standard along with supporting faculty and professional staff from the College. During the process of Self-Study development all committee members reviewed and provided feedback on each standard. David Fenske, Dean Emeritus and Professor, took a consulting role while providing feedback on the overall development of the Self-Study. He reviewed each standard multiple times and provided his feedback for revisions.

The list below presents the Committee member assuming primary responsibility for each standard along with supporting faculty and staff from the College.

Standard 1: Systematic Planning
Jung-ran Park with assistance from members of the College's Strategic Planning Committee

Standard 2: Curriculum
Denise Agosto with assistance from LIS Curriculum Task Force members and the College's Curriculum Committee members

Standard 3: Faculty
Xia Lin with assistance from Brenna Martin, Assistant Director of Faculty Support Services for the College

Standard 4: Students
Jane Greenberg with assistance from Melissa Englund, Associate Director of Academic Operations

Standard 5: Administration, Finances, and Resources

Erjia Yan with support from Kathleen Funk, Chief Operating Officer, and LeeAnn Black, Executive Assistant to the Dean

The entire LIS faculty was involved in development of the Self-Study by providing faculty-related data and feedback on our curriculum and student-related matters. In addition, the administrators, major committees, and professional staff were involved in development of the Self-Study as follows:

- Ellen Bass, Head, Department of Information Science (May 2015-August 2017)
- Linda Marion (retired), Associate Department Head for Graduate Affairs, Department of Information Science
- Peter Grillo, Associate Department Head for Undergraduate Affairs and Interim Associate Department Head for Graduate Affairs

- Christopher Spangler, Executive Director of Strategic Partnerships and Communications

- Strategic Planning Committee members
- Tenure & Promotion Committee members
- Curriculum Committee members
- Visioning Committee (replaced Strategic Planning Committee in fall 2016)
- Academic Advising Team
- Matthew Lechtenberg, Director of Recruitment
- Kerry Boland, Writer/Editor
- Kristen Glaser, Web Developer
- Joe Adair, Senior Software Developer
- John McNamara, Information Technology Manager
- David Raiken, Program Coordinator
- Tim Siftar, Liaison Librarian for the School of Education and College of Computing & Informatics at Hagerty Library at Drexel University

DREXEL UNIVERSITY
College of
Computing &
Informatics

Organization and Format of the Report

The Self-Study is organized according to the 2015 Standards. The Self-Study that follows devotes a chapter to each of the five standards: Systematic Planning; Curriculum; Faculty; Students; and Administration, Finances and Resources. The Self-Study is submitted in both print and electronic formats. All evidence used in the Self-Study is available onsite in either print or electronic format. The College's website presents the non-confidential material.

CHAPTER I: SYSTEMATIC PLANNING

Overview

The College of Computing and Informatics combines continuous quality improvement and marketing approaches to develop its strategies and implementation plans. This approach permits systematic planning to meet current goals and objectives while allowing for creativity, innovation, and the ability to take advantage of new opportunities as they arise. Faculty, professional staff, and administration of the College are involved in the planning process, as are representatives of various external stakeholder groups. In this chapter, we describe the planning and evaluation processes that are currently in place and present the current Strategic Plan, *Building Connected Lives,* which was approved in 2016 (See Appendix i.1).

The MSLIS program aligns with the Strategic Plan of The College of Computing and Informatics; that is, the overall vision, mission and goals of the College guide various components of the MSLIS program. Moreover, LIS program objectives underlie the program's own curriculum which arises from the outcomes that have been identified as central to our educational endeavors. As a College, the faculty and staff embrace a vision that we believe reflects the values and expectations of Drexel University, as well as our external stakeholders.

Response to the Standards

I.1 *(in part) The program's mission and goals, both administrative and educational, are pursued, and its program objectives achieved, through implementation of an ongoing, broad-based, systematic planning process that involves the constituencies that the program seeks to serve.*

In response to the formation of the College in AY 2013-14, during fall 2015 the Strategic Planning Committee was charged for the College. The Committee has conducted a thorough analysis on strengths, weaknesses, and opportunities by consulting various constituencies.

In January and February 2016, the strategic planning committee held a series of focus groups with CCI faculty and professional staff to collect data about how we, as a community, define success. Eight focus groups were led by committee members with twenty-five CCI faculty and eight CCI staff with the following protocol, designed to elicit challenges, opportunities and ideas for strategic planning. Notes were captured from each group, which were shared back and forth and discussed with the full committee.

The group will meet for one hour. It will be useful to think about the following questions prior to the meeting:
Ideally, in five years, what will CCI be like? What are the key components of your vision?
How do we get there?
- *What pockets of excellence do we have to build on?*
- *What do we want to highlight?*
- *What do we want to get rid of?*
- *What do we need to fix?*

During these meetings, faculty and staff offered insight and suggestions that were captured and discussed by committee members in preparation for drafting a strategic plan. Context for Strategic Planning (Appendix 1.1) synthesizes these data and discussions to articulate both the resources and advantages together with the barriers to greater success as a College. It is intended as an internal context-setting document to inform further systematic planning efforts.

Vision

Building Connected Lives

Computation and information connect all aspects of modern scholarship, education, business, health care, and other facets of everyday life. The newly formed College of Computing & Informatics (CCI) is uniquely positioned to become a crossroads of innovation at Drexel

University. In the coming years, CCI will establish its identity and reputation at Drexel and among computing and informatics institutions globally.

The Strategic Plan 2016-21, *Building Connected Lives*, was approved by the CCI faculty in June, 2016. The Plan articulates goals for CCI to build its identity through four key areas of investment: Research Excellence, Education Excellence, Institution Building, and Community Engagement. The MSLIS program is closely interconnected with these key areas of investment. First, the program has an uncommon strength in its diverse, multidisciplinary foundations. This intellectual breadth allows us to pursue complex research agendas that integrate technology, people, and information.

Second, the program is dedicated to excellence in education. As presented in the Standard II (Curriculum), LIS faculty have made significant efforts toward creating and promoting a distinctive identity for LIS program through "Education Excellence."

Third, the formation of the College of Computing and Informatics provides the LIS program with unprecedented opportunities. However, in order to fully realize these opportunities, our program needs to address multiple challenges associated with various aspects concerning 'Institution Building.' Current space constraints at the College limit opportunities for interaction and development of a shared research culture. These constraints also limit opportunities for socialization and collaboration across two departments.

Fourth, the LIS program has been actively involved in 'Community Engagement,' the last area of investment in the Strategic Plan 2016-21, *Building Connected Lives*. The importance of 'Community Engagement' is also reflected in the current LIS Program Objectives that are presented in I.2. During a meeting with ALA Advisory Board members, the Accreditation Committee sought their thoughts and recommendations on these four areas of investment as the guiding principles of the MSLIS program (See the agenda in Appendix i.3). The board primarily

focused on 'Education Excellence.' Its feedback has been incorporated into our curriculum reform; details are presented in Standard II (Curriculum).

Goals

The following list groups the goals in the above mentioned four areas of investment:

1. Research Excellence: Connecting Disciplines

   Strategic research goals are to:

   - Increase funding levels.
   - Create systematic support for faculty at all levels to identify and pursue career advancement goals.
   - Create systematic grant writing and mentorship support for PhD students.

2. Education Excellence: Connecting Learners

Connected learners are those who build not only excellent skills, but also networks of resources and people that help them recognize, seize, and even invent educational and professional opportunities. Connected learning implies a community of mentorship and support that goes beyond excellent classes.

Strategic education goals are to:

- Create and promote a distinctive identity for CCI education.
- Improve quality and efficiency of educational offerings.
- Improve student retention.
- Expand education offerings for students not majoring in a CCI degree.

3. Institution Building

Strategic institution building goals are to:

- Unify the College in a single building with adequate space for modern research laboratories, faculty and student workspaces, and dedicated collaborative spaces that will better support research and teaching while strengthening the social fabric of the College.
- Increase opportunities for socialization, collaboration, and exploration by creating social "sandboxes" where people regularly interact, get to know each other, and learn diverse organizational norms.
- Recognize contributions and excellence within the College.
- Increase diversity of our students and faculty.

4. Community Engagement

Strategic community engagement goals are to:

- Develop a strong integration with the Innovation Neighborhood.
- Help build a stronger residential community.
- Expand partnerships with local industry.

Increase involvement with local area schools and universities.

[MSLIS Program Learning Objectives are presented in I.2]

I.1.1 *Continuous review and revision of the program's vision, mission, goals, objectives, and student learning outcomes.*

The MSLIS program engages in a continuous planning and evaluation cycle led by a faculty committee with the input and support of the College's constituents. This process ensures that the

Systematic Plan remains relevant and reflects the needs and priorities we wish to serve. Our program conducts systematic data gathering from our constituencies, including students, faculty, alumni, employers, and administration. Periodically, the College revisits its vision and mission goals to ensure that they accurately reflect the needs and aims of contemporary society.

The table below illustrates our efforts toward continuous planning and evaluation. It presents milestones of strategic planning and revision processes, revision cycle, and vision statements since the last ALA accreditation in 2010. As the College's strategic direction is governed by that of the University, the University process is included in the table.

As presented earlier, the current College was formed in AY 2013-14 after a University initiative, Program Alignment & Review (PAR), launched in 2012. The College consists of two departments: the Department of Computer Science and the Department of Information Science. The MSLIS program resides in the Department of Information Science.

Table 1.1 Revisions of College Strategic Plans

Milestone	**Revision Cycle**	**Vision**	**University Process**
Strategic Plan 2013-2018 The *iSchool* at Drexel, College of Information Science and Technology	Approved March 2013	Connecting people, technology and society with information.	Drexel University's 2012-2019 Strategic Plan (**http://drexel.edu/strategicPlan/**), *Transforming the Modern Urban University*
Formation of The College of Computing and Informatics AY 2013-AY2014			University continues implementation process.

College of Computing & Informatics Strategic Plan, 2016-2021	Approved June 2016	Building Connected Lives	

Dean Yi Deng was appointed in September 2016. Under the leadership of Dean Deng, the CCI Visioning Committee was established in fall 2016 and replaced the Strategic Committee. The Visioning Committee is composed of the following: Ellen Bass, Andrea Forte (Chair), Kathleen Funk, Jeremy Johnson, Jane Greenberg, Denise Agosto, Santiago Ontañón Villar, Jeff Salvage, Erin Solovey, Deborah Turner, Dario Salvucci, Greg Hislop, and LeeAnn Black.

The Committee facilitates implementation of the College vision, priorities, and strategy at departmental and college levels. Goals of the committee are to:

- Serve as the portal to bring ideas and discussions of the taskforce to College faculty and professional staff and bring input from faculty and professional staff to taskforce deliberations; and to stimulate and facilitate the departmental and College-wide planning process.
- Help to craft a compelling vision and identity for the College to secure CCI's leadership position in computing and informatics education and research in this era of a drastically changing landscape of higher education, economic and societal needs.
- Develop priorities and actionable strategies for the College to drive the CCI vision and identity in the next five years.

The MSLIS program reviews its program learning objectives every other year. The current program learning objectives (see Appendix II.6) that were approved by the LIS faculty in June 2016 are the results of the systematic planning and development of our curriculum over a three-

year period. Standard II (Curriculum) presents in detail our extensive efforts toward developing our new curriculum and program learning objectives. The Curriculum chapter also details how the systematic planning and revision of the program are guided by input from our program's stakeholder groups.

I.1.2 *Assessment of attainment of program goals, program objectives, and student learning outcomes.*

The assessment and evaluation in this standard (I.1.2) are based on the following:

- Results of students' ratings on our course evaluations for core course objectives that have been mapped to program learning objectives (See Appendix 1.2)
- Data from MSLIS graduate student exit surveys (See Appendix 1.3)
- MSLIS graduation rates (See Appendix 1.4)

Appendices 1.2, 1.3 and 1.4 include a more detailed report on our assessment of the above items.

Standard IV (Students: IV 7 & 8) details the direct and indirect measures included in assessing attainment of program objectives and student learning outcomes.

The course evaluations (both mid-course and final evaluations) provide valuable information about the achievement of learning outcomes. The results of the mapping between six core course learning objectives and the MSLIS program learning objectives are highly positive in term of students' average ratings on their learning (*"I would rate my ability to do the following as…"*). The average ratings were above the benchmark (eight out of ten — on the scale of ten). The following table presents core course learning objectives mapped to MSLIS program learning objectives with students' ratings taken from Winter 2015 through Summer 2016 end-of-term student course evaluations.

Note: The current program learning objectives were approved in June 2016; previous versions of program learning objectives were used for the mapping in the table below.

Table 1.2 Mapping between Program Learning Objectives and Core Course Learning Objectives, Winter 2015 through Summer 2016

MS(LIS) Program Learning Objectives	Course	# of Students Surveyed	# of Respondents (Response Rate)	Course Objectives	Average of Ratings
Manage information organizations using appropriate strategies and approaches.	INFO 515	83	38 (45.78%)	Plan and conduct basic research projects for decision making, advocacy, and operations improvements in information organizations.	7.98
Explain the foundational principles, professional ethics and values, and social context within which various information professionals work	INFO 520	83	52 (62.65%)	Apply professional codes of ethics in case problems.	9.03
				Identify societal issues involving information access, privacy, and censorship and formulate responses to them.	8.98
Develop appropriate information-seeking strategies to select information resources for given audiences - Analyze the structure, description, and bibliographic control of literatures - Retrieve information in various formats and from various technologies/platforms	INFO 521	109	54 (49.54%)	Create online resources, such as a wiki page or a blog, to support information services.	8.84
	INFO 522	90	42 (46.66%)	Create search strategies that demonstrate general principles of searching, such as natural language vs. controlled vocabulary, increasing and decreasing yield, ranking/relevancy and search evaluation.	8.40
				Demonstrate an understanding of the fundamentals of database construction	8.34
				Evaluate the performance of resources	8.77

- Design and deliver library and information services and/or products using appropriate resources in libraries, archives and/or other information organizations - Communicate knowledge and skills related to accessing, evaluating and using information, information resources and/or information technology	INFO 530	160	77 (48.12%)	Assess basic technical, social and organizational issues related to implementing Information Systems in libraries and other information organizations	8.23
				Explain the role of information systems and information technology in organizations	8.50
Manage information organizations using appropriate strategies and approaches	INFO 640	117	50 (42.73%)	Apply basic financial management concepts to develop and justify a program budget and/or a new program.	8.26
				Demonstrate an understanding of the basic concepts, theory and practice of management, as they apply to information organizations.	8.54
				Describe the nature and role of managers, including personal effectiveness, problem solving, leadership, conflict resolution, and change management.	8.74
				Employ techniques and tools for managing human resources through communication, motivation, performance reviews, and political processes.	8.56

The goals of MSLIS graduate student exit surveys (see Appendix I.3) are to capture graduating students' impressions and experiences of both educational programs and student support services. A total of 150 MSLIS students completed their programs in AY 2014-15, both on-campus and online, of whom sixty-five students participated in the Graduate Student Exit Survey. The following summary of the survey results based on 43% of response rate highlights key data pertinent to standards identified in the COA Standards for Accreditation of Master's Programs in Library and Information Studies (2015). The overall results of student satisfaction are highly positive based on overall satisfaction with quality of education: 90% of survey participants reported that they would encourage others to attend our LIS program.

Table 1.3 Student Satisfaction Pertinent to Quality Education at the LIS Program

Overall satisfaction with quality of education:	
Encourage others to attend	90%
Satisfaction in major:	
Quality of interactions with faculty	94%
Quality of instruction	97%
Faculty accessibility	94%
Quality of course content	97%
Flexibility of curriculum	89%
Availability of required courses	82%
Availability of desired courses (electives)	79%
Variety of course options	88%
Research opportunities	85%
Availability of evening courses	84%
Co-op / internship experiences:	
Relevant to discipline	100%
Steinbright Career Development Center	100%
Overall experience	100%
Student / faculty interaction:	
Satisfaction: Academic advising	90%
Satisfaction Drexel Central:	
Registration	97%

Financial Aid	75%
Billing / Bursar	88%
Satisfaction Campus offices:	
Office of Graduate Studies	77%
Satisfaction Services:	
Library: Resource and services	97%

I.1.3 *Improvements to the program based on analysis of assessment data.*

The faculty regularly reassesses LIS curriculum and program learning objectives to ensure that our graduates are well prepared to meet and even exceed expectations in rapidly changing information environments. Administrators, faculty, and staff thoroughly assess individual student feedback and student course evaluations, and the faculty takes such assessments into action in enhancing course materials and teaching.

The assessment of student survey results helps to guide the future planning and direction of the program and assist with continuing ALA accreditation of the MSLIS degree program. For instance, the table (1.3) above indicates areas of needed improvements (below an 80% benchmark), specifically concerns for more desired (elective) courses (79%), financial aid (75%), and Office of Graduate Studies (77%), as highlighted in the above table. The concern about desired (elective) courses is in part a product of lower enrollment in recent years and the University's requirement for a set number of students in each section. In winter 2017, some changes were made in our curriculum to address these concerns (see Standard II.1 & II.6). Chapter 2 (Curriculum) details our efforts toward improving the LIS program based on the systematic assessment of data from our stakeholder groups including faculty, employers, ALA Advisory Board members. Standard IV.2 (Students) addresses our efforts toward improving financial aid.

In 2013, CCI's Assessment Coordinator, Prof. Delia Neuman (retired) oversaw the creation and implementation of the MSLIS Learning Assessment Plan 2013-18 (see Appendix 4.5). The

results of the assessment of the core courses raised such issues as low response rate on the student course evaluation, variability across assessment strategies, and grading practices.

The COA letter dated November 20, 2015, requested details on the response rate for student course evaluations and an explanation of efforts being made to ensure high response rates. As presented in the 2006 biennial report, the average student response rates are 52%, 54%, and 47%, respectively, for each of the last three academic years (AY2013/14, AY2014/15, and AY2015/16). The range for individual core courses was from 42% to 61% over the same period of time. To ensure high response rates, each quarter Program Coordinator Dave Raiken sends reminder e-mails to students with links to the online evaluation form, as well as e-mails to faculty members asking them to encourage students to complete the forms. In addition, during department meetings, faculty members are reminded of the importance of encouraging students to provide evaluation feedback. All faculty members are required to allow students to complete the forms; some faculty use encouragement strategies such as giving bonus points to encourage high response rates.

Regarding variability across assessment strategies and grading practices, the assessment coordinator, Delia Newman (retired), presented the assessment reports to the core course coordinators. The course coordinators accepted the findings in the report and agreed to work toward addressing the issues. Standard IV (Students IV: 7 & 8) details our efforts toward improving the LIS program based on the learning assessment.

I.1.4 *Communication of planning policies and processes to program constituents. The program has a written mission statement and a written strategic or long-range plan that provides vision and direction for its future, identifies needs and resources for its mission and goals, and is supported by university administration. The program's goals and objectives are consistent with the values of the parent institution and the culture and mission of the program and foster quality education. The program's goals and objectives are consistent with the values of the parent institution and the culture and mission of the program and quality education.*

The strategic direction of the College of Computing & Informatics continues to be guided by the strategic direction of Drexel University, as outlined in the University's new Strategic Plan.

Drexel University's mission states: *Drexel University fulfills our founder's vision of preparing each new generation of students for productive professional and civic lives while also focusing our collective expertise on solving society's greatest problems. Drexel is an academically comprehensive and globally engaged urban research university, dedicated to advancing knowledge and society and to providing every student with a valuable, rigorous, experiential, technology-infused education, enriched by the nation's premier co-operative education program.*

Drexel University's 2012-19 Strategic Plan *Transforming the Modern Urban University*, guides current University activity. The refreshed plan includes five strategic initiatives: 1) academic, professional, and clinical excellence; 2) student lifecycle management; 3) global impact; 4) research and innovation; and 5) master planning.

Drexel's vision further states: *Drexel will be the Philadelphia region's leading university excelling in high quality experiential education, online learning, translational research, technology transfer and business incubation, and urban revitalization. Drexel will use and leverage all of its assets — outstanding faculty, highly motivated students, 130,000 alumni, a pragmatic and entrepreneurial culture, cooperative education, Drexel eLearning, and our superior location at a major transportation hub — to create an accessible, relevant, and market-leading educational and research platform that benefits our diverse community of students, advances our scholarly work, and champions economic development in our region. Drexel will join the ranks of the most impactful and competitive universities in the United States at a time when the nation is clamoring for educational value, jobs, and new ideas for bolstering our economy.*

Systematic Planning of the MSLIS Program

The systematic planning of the MSLIS program is consistent with the University's mission and values, combining theory and practice in education with a strong emphasis on technological

applications. This derives directly from the founder of Drexel University, Anthony J. Drexel, in 1892 and has been realized through the systematic planning processes at the College, MSLIS Program, and University levels. Drexel University's emphasis on providing professional education is compatible with the LIS education program.

The precursor of what is now the MSLIS program at Drexel was founded in 1892, only one year after the foundation of the University itself. Through the first century of its existence, Drexel focused on preparing working-class students for the job market. Drexel's traditional career orientation is reflected in its (undergraduate) cooperative education program (co-op). Co-op carries an additional connotation: the linking of learning and real-world application. This emphasis on pragmatism is realized in many ways. For instance, MSLIS's practicum course embodies the features of the Co-op and, unlike the Co-op, offers credit. Practicum course features are discussed in Standard II: Curriculum (II. 2.3). In addition to the practicum, the focus on applying learning to real-world problems is pervasive, with faculty including simulations, guest speakers, field trips, case studies, and field-based assignments in their courses. Student work/assignments drawn from core courses and some elective courses are available on-site in electronic format. (For sample student work/assignments, see Appendix 1.5)

This approach to education further suggests that Drexel University is indeed an ideal home for the MSLIS program, where theory, practice and research are brought together to prepare information professionals who can contribute to society. As discussed earlier, the LIS faculty regularly reassesses LIS curriculum and program learning objectives so that our graduates are equipped to meet challenges in rapidly changing information environments. Standard II (Curriculum) details the systematic planning and revision process. Student feedback and course evaluations are examined by administrators, faculty, and professional staff the faculty takes such assessments into account in the development of course materials and teaching.

The MSLIS program has an ongoing and systematic planning and evaluation process through which it articulates its strategic direction and identity. Though these have changed over time and will continue to evolve as our constituents participate in a growing and changing knowledge

society, the process remains stable and open to public view. As the editorial history of the Strategic Plan indicates (see Table 1.1), the faculty regularly re-visits the strategic direction of the College and LIS program and receives input from administration, faculty, alumni, students, and employers. This input is translated into action by faculty, professional staff, and administrative initiatives.

I.2 *Clearly defined student learning outcomes are a critical part of the program's goals. These outcomes describe what students are expected to know and be able to do by the time of graduation. They enable the faculty to arrive at a common understanding of the expectations for student learning and to achieve consistency across the curriculum. Student learning outcomes reflect the entirety of the learning experience to which students have been exposed.*

The curriculum lies at the heart of the MSLIS program and therefore is an essential element in examining how the ALA *Standards for Accreditation* are met. Expectations regarding what our students will learn before they complete the program are derived from several sources detailed in the Standard II: Curriculum.

As part of the College's ongoing effort to improve its degree programs, the LIS Curriculum Committee (as part of the Information Science Department) was charged in fall 2015 with reviewing the future direction of the MSLIS program and the core competencies needed by LIS graduates. An informal job market analysis also was conducted. Various revisions were made on the basis of input from our stakeholders including faculty. The IS faculty approved the revised program learning objectives in June 2016. The Curriculum chapter details the process and our extensive efforts toward the revised program objectives over a three-year period.

The currently approved program learning objectives are publicly available in the University program/course catalog at:
http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/#evaluationstext/ [under Evaluations]

They read as follows:

Graduates of the MSLIS program are prepared to assume leadership positions in designing, executing, and evaluating information services and products and in managing organizations that facilitate access to recorded knowledge. Their preparation enables them to gain the knowledge and abilities required to:

- Explain the foundational principles, professional ethics and values, and social and technological contexts within which various information professionals work.
- Identify and analyze the information needs of various communities (e.g., academic institutions, local neighborhoods, workplaces, schools) and design and implement library/information programs and services to meet those needs.
- Analyze and apply information policies and information-related laws (including the standards and guidelines of pertinent professional organizations) that advance the creative and ethical applications of information technologies and the delivery of information resources throughout society.
- Foster the core values of the profession (e.g., access, equity, intellectual freedom, privacy, social justice) in all programs and services offered in these communities.
- Encourage the development of information literacy in support of all areas of individuals' and communities' needs (e.g., in formal and informal education, career development, health care and financial planning, research innovation, political and social engagement, etc.).
- Lead and manage information agencies, projects, and people through creative and effective approaches to planning, budgeting, policy making, fundraising, communication, and advocacy.
- Use research and data in sophisticated ways to demonstrate the value of the library and to help individuals and communities address community challenges (e.g., poverty and hunger, population shifts, economic development, preservation of cultural heritage, etc.).

- Help individuals and communities to understand, appraise, organize, manage, and preserve digital assets available through a variety of formal and informal sources and to create and manage their own digital identities and materials effectively.

Each course within the curriculum has specific student learning outcomes that address both LIS program learning objectives and ALA Standards down to a granular level. Specific student learning outcomes are presented in a syllabus of each course (see Appendices 2.2 & 2.3). The Curriculum standard presents in detail the revised learning outcomes in relation to curriculum advancement activities.

Table 1.4 below presents mapping between the above program learning outcomes/objectives and the following ALA accreditation standards. The Curriculum standard presents how our program learning objectives incorporate the ALA core competencies in addition to the ALA standards (see Appendices 2.5 & 2.13).

I.2.1 *The essential character of the field of library and information studies.*

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

I.2.5 *The symbiotic relationship of library and information studies with other fields.*

I.2.6 *The role of library and information services in a diverse global society, including the role of serving the needs of underserved groups.*

I.2.7 *The role of library and information services in a rapidly changing technological society.*

I.2.8 *The needs of the constituencies that a program seeks to serve.*

Table 1.4. Mapping ALA Standards and LIS Program Learning Objectives

ALA Standards	**LIS Program Learning Objectives**
I.2.1 *The essential character of the field of library and information studies*	• Foster the core values of the profession (e.g., access, equity, intellectual freedom, privacy, social justice) in all programs and services offered in these communities. • Explain the foundational principles, professional ethics and values, and social and technological contexts within which various information professionals work
I.2.2 The philosophy, principles, and ethics of the field	• Explain the foundational principles, professional ethics and values, and social and technological contexts within which various information professionals work
I.2.3 Appropriate principles of specialization identified in applicable policy statements and documents of relevant professional organizations	• Lead and manage information agencies, projects, and people through creative and effective approaches to planning, budgeting, policy-making, fundraising, communication, and advocacy. [Curriculum standard (II.4) details how ALA's core competencies and other related competencies such as *Public Library Association, Society of American Archivists*, *Association of Medical Libraries*, and *Association of College & Research Libraries* are reflected in course learning outcomes. See Appendix 2.12 for specific mapping between ALA's core competencies and our core course learning outcomes.]

I.2.4 The importance of research to the advancement of the field's knowledge base	• Use research and data in sophisticated ways to demonstrate the value of the library and to help individuals and communities address community challenges (e.g., poverty and hunger, population shifts, economic development, preservation of cultural heritage, etc.).
I.2.5 The symbiotic relationship of library and information studies with other fields	• Lead and manage information agencies, projects, and people through creative and effective approaches to planning, budgeting, policy making, fundraising, communication, and advocacy.
I.2.6 The role of library and information services in a diverse global society, including the role of serving the needs of underserved groups	• Foster the core values of the profession (e.g., access, equity, intellectual freedom, privacy, social justice) in all programs and services offered in these communities.
I.2.7 The role of library and information services in a rapidly changing technological society	• Help individuals and communities to understand, appraise, organize, manage, and preserve digital assets available through a variety of formal and informal sources and to create and manage their own digital identities and materials effectively. • Identify and analyze the information needs of various communities (e.g., academic institutions, local neighborhoods, workplaces, schools) and design and implement library/information programs and services to meet those needs.

	• Analyze and apply information policies and information-related laws (including the standards and guidelines of pertinent professional organizations) that advance the creative and ethical applications of information technologies and the delivery of information resources throughout society. • Encourage the development of information literacy in support of all areas of individuals' and communities' needs (e.g., in formal and informal education, career development, health care and financial planning, research innovation, political and social engagement, etc.).
I.2.8 The needs of the constituencies that a program seeks to serve	• Identify and analyze the information needs of various communities (e.g., academic institutions, local neighborhoods, workplaces, schools) and design and implement library/information programs and services to meet those needs. • Use research and data in sophisticated ways to demonstrate the value of the library and to help individuals and communities address community challenges (e.g., poverty and hunger, population shifts, economic development, preservation of cultural heritage, etc.).

I.3 *Program goals and objectives incorporate the value of teaching and service to the field.*

The value of teaching and service to the field is an integral part of the MSLIS program objectives.

The program learning objectives below are tied to the standard:

- Encourage the development of information literacy in support of all areas of individual and community needs (e.g., in formal and informal education, career development, health care and financial planning, research innovation, political and social engagement).

- Help individuals and communities to understand, appraise, organize, manage, and preserve digital assets available through a variety of formal and informal sources and to create and manage their own digital identities and materials effectively.

- Identify and analyze the information needs of various communities (e.g., academic institutions, local neighborhoods, workplaces, schools) and design and implement library/information programs and services to meet those needs.

I.4 *Within the context of these Standards each program is judged on the extent to which it attains its objectives. In accord with the mission of the program, clearly defined, publicly stated, and regularly reviewed program goals and objectives form the essential frame of reference for meaningful external and internal evaluation.*

The assessment and evaluation of our LIS program learning objectives is based on various mechanisms that indicate the extent to which LIS program learning objectives are attained. An outstanding example are the results of mapping between core course learning objectives and program learning objectives in the AY 2015- 16: the average ratings on learning were above the benchmark (eight out of ten — on a scale of ten). The details of this assessment, including other mechanisms, such as student satisfaction pertinent to the quality of education at the LIS program, are presented in the earlier standard (1.1.2). Standard IV (Students: IV.7 & 8) also details the

direct and indirect measures assessing attainment of program objectives. The College's Website (http://drexel.edu/cci/academics/programs/graduate-programs/ms-in-library-and-information-science/program-assessment/) also contains information on our efforts toward program assessment and evaluation.

The success of our efforts toward attaining LIS program objectives is reflected in the LIS program's ranking as eleventh in the nation, according to 2017 *U.S.News & World Report* rankings. We take pride in these external indicators of the quality of education provided to LIS students and attribute them in part to the planning and evaluation processes that are continuously employed.

As stated earlier, the currently approved program learning objectives are publicly available in the University program/course catalog at: http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/#evaluationstext/ [under Evaluations]

1.4.1 The evaluation of program goals and objectives involves those served: students, faculty, employers, alumni, and other constituents.

The systematic planning and development of the program are directed by input from various constituencies including students, faculty, alumni, employers and administration. The program employs various evaluative mechanisms including course evaluation and exit surveys from students; practicum surveys from employers; input from alumni, faculty, and professional staff; and other environmental scans. Several actions have been taken to systematically gather data from our constituencies (students, faculty, employers, and alumni) and to ensure that actions are taken based on an analysis of the data.

We align our surveys with those administered by the University to avoid duplication. The goal is to streamline the surveys, avoid duplication of questions, and make sure that we are gathering the

data we need to evaluate the program. Ongoing data collection activities within the College include:

- From students: Exit surveys are distributed each term to all students completing degrees. The exit surveys were revised in 2014 to combine the content from three previous separate surveys, 1) academic program satisfaction surveys, 2) advising satisfaction surveys, and 3) exit salary and job placement surveys. The first distribution of the new combined survey occurred at the end of the summer 2014 term.
- From faculty: We review individual course learning outcomes every year and the MSLIS program learning objectives every other year, with faculty discussions about program relevance and ideas for improvement included during the review process. We also review input from faculty on the facility, resources, and services provided by the College. Faculty surveys on these areas are conducted as needed.
- From staff: MSLIS students currently work with their assigned advisors (professional staff) as well as faculty throughout their LIS program. Advisors help students create individualized cohesive plans of study based on their academic and career goals. Advisory staff forward any curriculum or student-service-related concern and/or comments from students to faculty, administrators, and relevant committees.
- From employers: A revised survey for practicum employers was completed in 2014. It was used for the first time in the fall 2014 term to gauge employers' impressions of student job performance and to gather suggestions for curricular and other improvements to our MSLIS program. We administer the revised version each term to practicum employers, creating an evolving body of employer feedback on student performance and degree relevance to the workplace.

- From alumni: We administered program evaluation surveys to alumni in conjunction with the public events surrounding the opening of the Center for the Study of Libraries, Information & Society (CSLIS). We hope to continue to distribute program evaluation surveys to alumni on an annual basis, pending approval from the University to contact alumni in this way.

I.5 *The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of the program's success in achieving its mission, goals, and objectives.*

Our program employs various evaluative mechanisms aimed at improving the program and achieving program objectives. The table below illustrates some of the mechanisms discussed above with documented evidence and information on the systematic planning process and evaluation of the program.

Table 1.5. Systematic Planning Process and Documented Evidence

Systematic Planning Mechanism	**Documented Evidence**	**Cycle of Systematic Planning**	**Program Evaluation and Improvement**
The Executive Council of the College meeting	Agenda, meeting notes	Annual: (bi)weekly	Spans various aspects of the program
IS Department meetings and College assemblies	Meeting agenda, minutes/recordings	Annual: weekly/monthly/quarterly	Spans various aspects of the program (e.g., Faculty governance, curriculum)
Strategic Planning Committee	Agenda, strategic planning documents	Annual: (bi)weekly	Review/revision/creation of the strategic plan
Bylaw Committee	Agenda; Bylaw	Annual: (bi)weekly	Review/revision/creation

	documents		of new bylaw
Curriculum Committee	Special reports/documents (e.g., Revision and reform of MSLIS program, student learning assessment framework)	Annual: (bi)weekly	Curriculum revision and reform
Academic advising team	Agenda	Annual: weekly	Spans various aspects on academic and student services
Student course evaluation	Student course evaluation data	Annual: each term	Faculty teaching and teaching materials; curriculum, student satisfaction improvement
Exit survey	Survey data	Annual: each term	Student service improvement
Graduate Student Community discussion board on Blackboard	Online student discussion/comments	Online/Annual	Spans various aspects of student services (e.g., registration, career advice, course selection)
ALA advisory board	Agenda/meeting notes	As needed	Curriculum improvement
Employer/Practicum survey	Survey results	Annual: each term	Curriculum improvement
Faculty Annual Performance	Faculty Annual Performance	Annual	Faculty improvement (research, teaching,

Evaluation	Evaluation documents		service)
Tenure & Promotion Committee	Meeting agenda	Annual	Evaluation of faculty achievements
Faculty survey	Survey results on facilities and resources	As needed	Evaluation of facilities and resources for faculty research, teaching and service
Faculty/staff retreats	Agendas	(Bi)annual	Spans various aspects of the program (e.g., curriculum, research, teaching)

I.6 *The program demonstrates how the results of the evaluation are systematically used to improve the program and to plan for the future.*

Systematic planning and program assessment are an integral part of our program's ongoing efforts. We continue to systematically gather data from our constituencies (students, faculty, employers, and alumni) to ensure that actions to revise and update the MSLIS program are taken based on analysis of constituent data.

Throughout this self-study are examples of the ways in which the CCI systematically collects and uses data for the evaluation and improvement of the program. The faculty, professional staff and administrators continuously gather data from stakeholders that may be used in setting the strategic direction of the College. Students, through mid-course and end-of-course evaluations and exit surveys, provide feedback that is continuously transmitted to instructors, course coordinators, academic advisors/professional staff, and Curriculum Committees (see Standard II: Curriculum; Standard IV: Students). The faculty regularly reassesses LIS curriculum. Feedback

from faculty, students, advisory groups, course evaluations and benchmarking/job market analysis data is used to reform the LIS curriculum (see Standard II: Curriculum).

The annual faculty performance review continues to track faculty accomplishments and innovations in the areas of teaching, research, and service. The IS department head discusses with each faculty member concerns raised in the students' course evaluation feedback each quarter. These evaluations and communications are used to transform the quality of LIS education and interaction with individual students (see Standard III: Faculty). Feedback from the faculty survey on facilities and resources is transmitted to the Strategic Planning Committee and administrators for future planning (see Standard V: Facilities, Finances and Resources).

Summary

Our MSLIS program originated in 1892; of the continuously accredited programs, our program is the oldest as it has been accredited since 1942. At the beginning of academic year of 2013-14, the College (formerly known as The *iSchool* at Drexel, College of Information Science & Technology) was reorganized by uniting the former College of Information Science and Technology, the Department of Computer Science in the College of Engineering, and the Department of Computing and Security Technology in the Goodwin College of Professional studies. The current College of Computing & Informatics (CCI) was the result of this expansion. The expansion deepens and further broadens our LIS program, which lies at the center of CCI. The College consists of two departments: the Department of Computer Science and the Department of Information Science. The MSLIS program resides in the Department of Information Science. The formation of the College reflects the growing role of computing and informatics in all sectors of the economy.

The systematic planning of the MSLIS program is consistent with the University's mission and values, combining theory and practice in education with a strong emphasis on technological applications. Drexel University's emphasis on providing professional education is compatible with the LIS education program. The MSLIS program inherits its vision, mission, and goals from

the College. While each component of the MSLIS program is guided by the overall vision and mission and goals of the College, the curriculum is derived from the outcomes that have been identified as central to our educational endeavor.

The new program, including its program learning objectives, is the result of our extensive efforts toward systematic planning and development of our curriculum over a three-year period. The systematic planning and revision of the program are directed by input from various constituencies, including students, faculty, alumni, employers and administration. Our program employs various evaluative mechanisms, including direct and indirect measures assessing the attainment of program objectives.

The MSLIS program at Drexel provides excellence in a broad range of multidisciplinary research and education areas. Our LIS faculty are internationally renowned for their innovative research and professional activities. This is evidenced by strong publication and funded research, in addition to other scholarly activities and professional service produced by our LIS faculty. This is discussed in detail in reference to Standard III: Faculty. The expansion through the formation of the College of Computing & Informatics further deepens and broadens the reach of our LIS program further and provides the program with unprecedented opportunities. The expansion also brings forth great potential for LIS faculty to broaden their research agendas. Building an effective multidisciplinary team is fundamental in solving complex problems that tend to predominate in a communication and information technology-driven society. Our College provides a fertile ground for LIS faculty to conduct and execute such a complex research program effectively and productively.

In order to fully realize such opportunities fully the College needs to address multiple challenges associated with current space constraints. CCI is currently spread across three buildings, resulting in limited opportunities for interaction and development of a vibrant, shared research culture. Although we occupy multiple buildings, we have insufficient space to provide sufficient common areas, office space, and labs to support current faculty, students, and professional staff

needs. The recent faculty survey conducted during winter term of 2017 captures this insufficiency on current space. (For detail results, see Appendix 1.6) Faculty members were greatly satisfied with the services from Hagerty Library, as well as the IT resources and services from iCommons within the College. However, the faculty perceived the quality of the space for collaboration to be inadequate. This issue is discussed further in reference to Standard V: Administration, Finances, and Resources.

For the last three years, there has been a substantial decrease in the University's undergraduate enrollment and its annual operating budgets. Overall enrollment of MSLIS students has decreased, which is consistent with the national trend. Historically, however, our program has had one of the highest retention and graduation rates across the University, a testament to the quality of the advising in the LIS program. Details on the quality of the advising are presented in the subsequent Standards: Standard II (Curriculum), Standard IV (Students), and Standard V (Administration, Finance, and Resources). In order to address the enrollment decrease, the College carries out an active recruitment plan for the MSLIS program through various mechanisms. Our efforts toward increasing enrollment are discussed in detail in reference to Standard IV (Students).

Along with the enrollment decrease in the LIS program, the number of faculty in the program has decreased due to retirement, an unsuccessful case of third-year/mid-tenure review, and unsuccessful cases of tenure/promotion review. Details on the loss of faculty members due to the above mentioned reasons are presented in Standard III (Faculty). The decrease in faculty has had an impact on faculty governance and service, in addition to teaching and research productivity. New faculty hires since the last accreditation, however, have mitigated the impact to some degree. Details are presented in reference to Standard III (Faculty).

To address these challenges, we are engaged with various strategic activities. Efforts for increasing enrollment have been made through various strategies. Recruitment of new faculty members is contingent on our program's enrollment increase. Our program will continue to seek

funding and grants for supporting our students and research initiatives. The Drexel Building Committee has been making efforts toward addressing the needs of collaborative meeting space.

References

U.S.News & World Report (2017). Best Grad Schools: Library and Information Studies. **https://www.usnews.com/best-graduate-schools/top-library-information-science-programs/library-information-science-rankings**

U.S.News & World Report (2017). Drexel University: Library & Information Studies. **https://www.usnews.com/best-graduate-schools/top-library-information-science-programs/drexel-university-212054**

DREXEL UNIVERSITY College of Computing & Informatics

CHAPTER 2: CURRICULUM

Overview

CCI's MSLIS degree covers a range of specialty areas, all within one single-degree program. The curriculum covers the study of theory, principles, practices, and values necessary for the provision of service in libraries and other information agencies. Based on degree revision efforts that began in the fall term of AY 2014/15, the curriculum has recently been updated and revised. The degree revision was approved by Drexel University's Faculty Senate in February of 2017, with a new program start date of fall of AY 2017/18. Students will choose from three broad areas of focus: 1) digital technology services, 2) information and data services, and 3) user and community services. These three areas were chosen based on content analysis of the job titles listed in open Association of Research Libraries (ARL) job advertisements, e-mail discussions with the ALA Accreditation Advisory Board members (Appendix 2.1), and discussions with library staff at Drexel's Hagerty Library February 23, 2017.

Regardless of the chosen area of focus, past, current, and future MSLIS students follow a single curriculum taught by CCI's highly qualified full-time and part-time faculty. The program is offered both online and face-to-face with seamless integration between these modes that enables students to take a mixture of online and face-to-face courses, as the same curriculum is taught both online and face-to-face. The full-time faculty members are the primary instructors for the online and face-to-face courses, ensuring that students enrolled in both programs are taught by the same faculty. There is some variance in adjunct instructors between the two delivery modes, as only adjuncts in the Philadelphia area can teach face-to-face. To ensure that the content of the online and face-to-face courses is consistent, the online and face-to-face versions of a course use the same syllabus, same assignments, same readings, and same weekly lectures/content presentations. These materials are shared among all instructors for each course.

The number and percentage of core courses offered online and face-to-face and the number and percentage taught by full-time faculty and adjuncts for each year of the accreditation review appear on Table 2.1.

Academic Year	Total Sections of Core Courses	Online Core Courses	F-t-F Core Courses	Online Core Courses Taught by Full-Time Faculty	Online Core Courses Taught by Adjuncts	F-t-F Core Courses Taught by Full-Time Faculty	F-t-F Core Courses Taught by Adjuncts
2010-2011	88	75 (85%)	13 (15%)	46 (52%)	29 (33%)	11 (13%)	2 (2%)
2011-2012	85	75 (88%)	10 (12%)	36 (42%)	39 (46%)	7 (8%)	3 (4%)
2012-2013	72	65 (90%)	7 (10%)	44 (61%)	21 (29%)	5 (7%)	2 (3%)
2013-2014	57	52 (91%)	5 (9%)	42 (74%)	10 (18%)	4 (7%)	1 (2%)
2014-2015	45	44 (98%)	1 (2%)	40 (89%)	4 (9%)	0 (0%)	1 (2%)
2015-2016	30	29 (97%)	1 (3%)	28 (93%)	1 (3%)	0 (0%)	1 (3%)
2016-2017	23	23 (100%)	0 (0%)	21 (91%)	2 (9%)	0 (0%)	0 (0%)

Table 2.1 Online and face-to-face course offerings.

As this table shows, the number of core courses being taught face-to-face has declined over the review period has declined. This decline reflects the decline in the percentage of students registering as face-to-face students. Table 2.2 shows the numbers of students enrolled each year during the review period as online or face-to-face students.

Table 2.2 Online and face-to-face student enrollment

Academic Year	Total MSLIS Students	Online	Face-to-Face
2010-2011	682	517	165
2011-2012	623	489	134
2012-2013	506	414	92
2013-2014	418	344	74
2014-2015	332	292	40
2015-2016	260	230	30
2016-2017	201	184	17

In response to the decline in face-to-face student enrollment, in fall of AY2017/18 CCI is looking at increasing hybrid course offerings. We have been experimenting with the hybrid format for a couple years now. We are selecting courses based on need. For example, some of the international students need to have face-to-face courses, so we are offering those face-to-face.

Table 2.3 lists the number of students who completed MSLIS and MSLIS/MSIS degrees for each year of the accreditation review. The download graduation trend reflects the overall downward trend in MSLIS student enrollment.

Table 2.3. Students completing MSLIS and MSLIS/MSIS degrees

Academic Year	Students Completing MSLIS Degrees	Students Completing MSLIS/MSIS Degrees
2010-2011	254	4
2011-2012	257	3
2012-2013	244	6
2013-2014	222	4
2014-2015	145	5
2015-2016	118	2
2016-2017	111	3

Table 2.4 shows the numbers of students taking the core courses for each year of the accreditation review.

Table 2.4. Students enrolled in MSLIS core courses

Academic Year	INFO515	INFO520	INFO521	INFO522	INFO530	INFO640
2010-2011	303	351	328	297	366	295
2011-2012	300	296	269	262	355	309
2012-2013	203	199	187	199	274	249
2013-2014	186	180	158	145	233	192
2014-2015	145	140	121	141	210	124
2015-2016	83	103	109	90	160	117
2016-2017	91	91	93	69	76	99

Again, a downward trend is apparent. This trend is a concern, and it was one of the motivating factors that led to the development of the newly revised degree program. The newly updated degree features six new core courses combined with a range of electives that address a wide range of careers in information services. The revised program meets the updated faculty-approved program learning outcomes and includes a stronger focus on teaching human resource management and on enabling students to receive practical work experiences during the course of their studies. These updates were made based on input and feedback from a host of constituencies — students, alumni, employers, faculty, and professional staff—as explained later in this chapter.

As it has in years past, the newly-updated degree program emphasizes individualization of program design. In addition to selecting one of the three overarching degree areas, students will work with advisors and faculty to select the specialized electives that will best lead them to their desired professional work goals. The full list of electives available to MSLIS students appears in the University course catalog at:
http://catalog.drexel.edu/coursedescriptions/quarter/grad/info/.

The new degree program culminates with a one-term individualized capstone project in the form of supervised work in an information organization of the student's choice. The reasons for the revision and the three-year planning and revision process are described in detail later in this chapter.

The Structure of the MSLIS Degree Program

Drexel University runs on ten-week academic quarters, four per year. A minimum of 45 credit hours is needed to complete the MSLIS degree program. Courses are three credits each, meaning that MSLIS students must complete a minimum of fifteen courses to complete the degree. New students are admitted in the fall and spring quarters. Most students take two courses per quarter

and complete the degree program in about two or two and a half calendar years. Each core course is offered during either three or four academic terms each year.

All MSLIS students take six required courses. During the period that this accreditation self-study covers (2011-17), the core courses were:

- INFO 515: Research in Information Organizations
- INFO 520: Social Context of the Information Professions
- INFO 521: Information Users and Services
- INFO 522: Information Access and Resources
- INFO 530: Foundations of Information Systems
- INFO 640: Managing Information Organizations

Syllabi for the old core courses appear in Appendix 2.2.

As of fall 2018, the required courses will be:

- INFO505: Information Professions and Professionals (3.0 credits)
- INFO506: Users, Services, & Resources (3.0 credits)
- INFO507: Leading & Managing Information Organizations (3.0 credits)
- INFO590: Organization of Data and Information (3.0 credits)
- INFO591: Data and Digital Stewardship (3.0 credits)
- INFO890: Capstone Project (3.0 credits)

Syllabi for the complete new set of core courses appear in Appendix 2.3. The MSLIS update and revision also include reviews of all of the existing MSLIS electives. The committee asked all elective course coordinators if they felt that their courses were up-to-date or in need of content

revisions. For those electives for which updates were deemed necessary, a schedule of elective course updating was created, which is set to begin in fall 2017. The spreadsheet indicating which courses need to be revised and when they will be revised appears in Appendix 2.4.

MSLIS students can take any master's level elective courses in the Information Science department to fulfill their elective requirements. There currently are thirty courses centered in the LIS degree program and that LIS students commonly take as electives. These thirty courses are listed on Table 2.5. Each course is worth 3 credits. Although these courses are considered LIS electives, some of them also form parts of other master's degrees' curricula, as indicated on the table. (See **http://catalog.drexel.edu/coursedescriptions/quarter/grad/info/** for additional course details, including pre- and co-requisites and brief course descriptions.)

Course Number	Title	Complementary Degree Programs
INFO552	Introduction to Web Design for Information Organizations	
INFO555	Introduction to Geographic Information Systems	MSHI (Master of Science in Health Informatics)
INFO560	Introduction to Archives I	
INFO561	Introduction to Archives II	
INFO605	Introduction to Database Management	MSIS (Master of Science in Information Systems), MSHI
INFO622	Content Representation	MSIS, MSHI
INFO633	Information Visualization	MSIS
INFO642	Managing Digital Projects	
INFO649	Library Programming	
INFO650	Public Library Service	
INFO651	Academic Library Service	
INFO653	Digital Libraries	
INFO657	Digital Library Technologies	
INFO658	Information Architecture	
INFO659	Introduction to Data Analytics	MSIS, MSHI
INFO660	Cataloging and Classification	
INFO662	Metadata and Resource Description	
INFO665	Collection Management	

INFO674	Digital Scholarship in Science & Technology	
INFO679	Information Ethics	
INFO680	US Government Information	
INFO682	Storytelling	
INFO683	Resources for Children	
INFO684	Resources for Young Adults	
INFO688	Instructional Role for the Information Specialist	
INFO750	Archival Access Systems	
INFO751	Archival Appraisal	
INFO753	Introduction to Digital Curation	MSHI
INFO755	Electronic Records Management	
INFO756	Digital Preservation	

Table 2.5 Elective courses

In addition, often students will take courses that form parts of other master's degree programs as electives. Common non-LIS courses include selections such as INFO 608: Human-Computer Interaction. This open availability of courses outside of the more traditional LIS electives enables students to create interdisciplinary courses of study and provides them with opportunities for creating a degree program with an especially strong technological bent.

Dual Degree

CCI also offers a dual MSLIS/MSIS degree, consisting of a Master of Science in Library and Information Science (MSLIS) and a Master of Science in Information Systems (MSIS). It is a 63-credit program, which typically takes students two and a half to three years to complete. It focuses on teaching students about selecting, organizing, managing, and accessing information resources to meet user information needs and creating and managing the databases, interfaces, and information systems that connect users with the information. These 63 credits are made possible by the overlapping elective courses for the MSLIS and MSIS. This shows that the dual degree as embedded in several programs within the Department across disciplines and domains, and that individual programs within the department extend beyond narrow disciplinary/domain

boundaries into broader related areas. This boundary-spanning is a hallmark of the CCI curriculum as a whole and of the MSLIS curriculum in particular, which has a high technology focus.

Response to the Standards

II.1 *The curriculum is based on goals and objectives, and evolves in response to an ongoing systematic planning process involving representation from all constituencies. Within this general framework, the curriculum provides, through a variety of educational experiences, for the study of theory, principles, practice, and legal and ethical issues and values necessary for the provision of service in libraries and information agencies and in other contexts. The curriculum is revised regularly to keep it current.*

Connection to Learning Outcomes

As explained in Chapter 1, the MSLIS program learning objectives are the result of ongoing systematic planning and review. As part of these ongoing systematic planning and review efforts, in the fall term of AY 2014/15 CCI launched a MSLIS Curriculum Revision Task Force to consider whether a holistic revision and update of the degree program was needed. MSLIS Curriculum Revision Task Force members included full-time CCI faculty members Linda Marion (chair), Denise Agosto, Catherine Collins, and Susan Davis. The faculty working on the MSLIS Curriculum Revision Task Force interviewed regional employers, reviewed ALA accreditation requirements, and surveyed equivalent degree programs at peer institutions before bringing the suggestion for a full-scale revision to the CCI faculty for a vote. Faculty approved of task force's final recommendation for a complete program overhaul in June 2015. The revision work began the following fall.

The revised program was based on systematic review and update of the MSLIS program learning outcomes and on careful review of the ALA Competences, which are provided in Appendix 2.5. As a part of this process, newly revised degree program learning outcomes were approved by a

faculty vote in June 2016. These outcomes are available in Appendix 2.6. Continuous program planning has been and continues to be driven by the program learning outcomes, which are reviewed continually and formally revised annually by the faculty. The MSLIS curriculum is designed to achieve these learning outcomes, and they guide the systemic curricular review and revision process.

Systematic Curriculum Planning and Revision

Prior to AY 2015/16, MSLIS curriculum work was a part of the larger college-wide (2011-14) or department-wide (2014-15) curriculum committee. With the creation of the new, larger college, curriculum committee work became overwhelming, as the College gained several new degree programs. The Department Head created task forces (curriculum committees) for each degree program. Starting in fall of 2015, an MSLIS Curriculum Committee was formed to oversee the systematic curriculum planning and revision of the MSLIS degree program, as explained above. The Information Science department head appointments faculty to the committee for one year terms beginning with each new fall term. The MSLIS Program Director serves as committee chair, with additional committee members appointed from the LIS faculty. Membership varies each year depending on the service load and availability of individual LIS faculty. The MSLIS Curriculum Committee meets biweekly to discuss issues relating to curriculum review, planning, and updating. Current members of the MSLIS Curriculum Committee include full-time, tenured LIS faculty members Denise Agosto (chair), Jane Greenberg, Xia Lin, and Jung-ran Park. The notes from a meeting appear in Appendix 2.7 as a sample of the typical meeting content.

2015 - 2017 MSLIS Curriculum Revision

During the first year of this process (AY 2014/15), the MSLIS Revision Task Force met biweekly to explore the breadth of degree revision needed and to conduct extensive background and planning work, gathering input from faculty, students, professional staff, alumni, employers, and professional library literature. The task force interviewed regional employers — primarily directors of academic, public, and special libraries, as these are the three types of libraries in

which the greatest numbers of program graduates are employed — to understand what they looked for in MSLIS graduates and to ask for suggestions for updating the degree in the broad sense. Task force members also reviewed ALA accreditation requirements, solicited input from faculty, students, and staff, and surveyed equivalent degree programs at peer institutions.

Based on this data gathering, the task force created a series of supporting documents that together served as the background for continued degree revision planning. To determine the extent to which program courses were sufficiently covering the concepts comprising the ALA Competences, the task force created a mapping of MSLIS Courses (as of fall term AY 2014/15) to the ALA Competences (See Appendix 2.5.). Most of the competences were well-represented within the MSLIS core courses, but Core Competence 3: Organization of Recorded Knowledge and Information and Core Competence 7: Continuing Education and Lifelong Learning were not well-represented among the required core courses.

Next, the task force compiled a selective bibliography of professional publications related to LIS employers' expectations for new MSLIS hires, which appears in Appendix 2.8. The readings enhanced the task force members' understandings of employers' expectations and of the changing LIS marketplace as they moved forward with recommendations for degree revisions. As a part of its efforts to assess the existing MSLIS program learning outcomes, the Task Force also compiled program outcomes from other schools that granted ALA-accredited master's degrees. This document appears in Appendix 2.9. Based on this program outcome review, the Task Force recommended updating the MSLIS outcomes to align better with the ALA Competences, as described above.

Overall, two major themes resulted from this background preparation work, including suggestions for making the program:

1. Focus closely not just on teaching domain-related knowledge but on teaching "soft" concepts (critical thinking, customer service, personnel management concepts, etc.) as well.

2. Provide a closer connection to information work practice, ensuring that students have practical work experience by the time they graduate from the program and are prepared to enter the workforce at a professional level.

The task force presented its work to the Information Science Department faculty March 17, 2015, proposing that a complete degree revision be undertaken, most significantly the creation of a set of new core courses that would more fully cover the concepts included in the ALA Core Competences. The faculty discussed the recommendation at that meeting, and the task force gathered faculty and professional staff input over the following month. The March 17, 2015, presentation is included here as Appendix 2.10.

For the final step in the early planning process, the MSLIS Revision Task Force built suggestions from faculty and staff into its final report. The final report was circulated to faculty and professional staff for additional input prior to a formal faculty discussion and vote of approval at the June 2, 2015, College assembly meeting. The final task force report is provided in Appendix 2.11.

The MSLIS Curriculum Committee then began building on the year-long background work of the MSLIS Curriculum Revision Task Force to undertake the approved degree revision work. First, the committee drafted an update to the program learning outcomes, based on the task force's review of the ALA Core Competences and the College's strategic planning work (as described in Chapter 1).

Next, the MSLIS Curriculum Committee worked with faculty to create syllabi for the six new required courses. To ensure that students will graduate from the MSLIS program having

achieved the program learning outcomes, the MSLIS Curriculum Committee mapped the new core course outcomes to the degree program outcomes. The mapping between the core course learning outcomes and the degree program outcomes appears in Appendix 2.12. To ensure that students will graduate with the full range of knowledge and skills covered by ALA's Core Competencies, the committee mapped the core course outcomes to the competencies, as shown in Appendix 2.13.

The committee sent a working draft of the degree revision proposal to the ALA Accreditation Advisory Board for review and comment before the final version was presented to the faculty. The board, including local employer, alumni, and student representatives, met January 10, 2017, to discuss the revised degree program. (The notes from this meeting are provided in Appendix 2.1.) The committee chair also presented the proposal at a staff meeting at Drexel's Hagerty Library February 23, 2017, and solicited ideas for updates to elective offerings and for promoting the new degree program within the library community. Hagerty Library staff members suggested increasing course offerings related to marketing, publicity and financial and human resource management. They also suggested exploring dual degree programs with other master's programs offered within the University, such as the business school, the law school, and the school of public health. The staff felt that online marketing would be key to increasing program enrollment.

In sum, this multi-year revision process and the forthcoming implementation of the newly revised degree program directly address the need for continuous improvement mandated in this standard.

Removal of Optional Concentrations

Due to reduced program enrollment over the past few years, we can no longer guarantee that we can run the courses required for concentration completion due to insufficient numbers of students to fill the large numbers of concentration courses. Student surveys reported elsewhere in this

self-study reported a concern with the regularity of course offerings required for completion of the concentrations. This change addresses the concern of graduates and moves toward a more flexible, individualized curriculum advisement process.

During the review period 2011-17, the College offered students the following optional degree concentrations, each of which represents a set of five 3-credit courses. The concentrations and the faculty members in charge of them are listed below:

* Archival Studies (Susan Davis)
* Competitive Intelligence and Knowledge Management (Val Yonker)
* Digital Curation (Lori Richards)
* Digital Libraries (Xia Lin)
* Library and Information Services (Linda Marion)
* School Library Media (Delia Neuman)
* Youth Services (Denise Agosto)

We no longer accept students into the School Library Media concentration as of fall 2015 and into the Competitive Intelligence and Knowledge Management concentration as of fall 2016 due to low enrollment numbers overall. Drexel University requires at least ten students in order to run a master's level course. Due to program enrollment that fell from 332 in fall 2014 to 260 in fall 2015 and 201 in fall 2016, it became difficult to run courses in those two concentrations, leaving students unable to complete them in a timely manner.

Appendix 2.15 shows the numbers of students taking MSLSIS concentration courses for each year of the accreditation review. Each concentration required five courses, but students could select from a larger number of choices, and the courses were also open to other MSLIS students as electives. The numbers of students completing the two terminated concentrations appear in Table 2.6. It shows a general downward trend over the review period.

	Fall Quarter 10-11	Fall Quarter 11-12	Fall Quarter 12-13	Fall Quarter 13-14	Fall Quarter 14-15	Fall Quarter 15-16	Fall Quarter 16-17
Competitive Intelligence & KM	28	19	16	21	23	15	9
School Library Media	51	45	37	21	12	9	3

Table 2.6 Students completing the Competitive Intelligence and Knowledge Management and School Library Media concentrations.

In place of the optional concentrations, academic advisors and faculty will work with students to advise them on selecting one of three areas of focus for their studies (digital technology services, information and data services, or user and community services) and on choosing electives that will prepare them for their intended career paths. The Director of Advising sent an explanatory e-mail to all enrolled MSLIS students in May 2017 announcing the end of the concentrations program (Appendix 2.16), and the academic advising staff discussed it during advising appointments as well.

II.2 *The curriculum is concerned with information resources and the services and technologies to facilitate their management and use. Within this overarching concept, the curriculum of library and information studies encompasses information and knowledge creation, communication, identification, selection, acquisition, organization and description, storage and retrieval, preservation and curation, analysis, interpretation, evaluation, synthesis, dissemination, use and users, and management of human and information resources.*

The MSLIS curriculum educates students for a wide variety of roles in libraries and other information organizations. As discussed in other sections, the MSLIS curriculum is grounded in the MSLIS degree program learning objectives. The MSLIS degree program and the Information Science Department in which it is housed have information at its core, bringing together the study of people, information, and technology as the overarching concept that brings together the various degree programs of the department.

II.2.1 *The curriculum fosters development of library and information professionals who will assume a leadership role in providing services and collections appropriate for the communities that are served.*

The MSLIS program strongly emphasizes both the teaching of leadership and user/community needs analysis. Leadership forms the basis of the required core INFO507: Leading & Managing Information Organizations. Three of the five course learning outcomes specifically address leadership:

- Demonstrating an understanding of the basic concepts, theories, and practice of managerial leadership as they apply to information organizations.
- Describing the nature and role of leaders and managers, including personal effectiveness, problem solving, conflict resolution, and change management.
- Employing techniques and tools for leading and managing human resources through communication, motivation, performance reviews, and political processes.

Again looking at the required core courses, the following courses address providing services and collections that are appropriate for the communities served:

INFO 506: Users, Services, & Resources

- Related course learning outcomes:

- Assess and answer information users' questions with widely used information resources.
- Evaluate the provision of information services that address the needs of a diverse and changing society.

INFO 591: Data and Digital Stewardship

- Related course learning outcome:
  - Articulate the needs and strategies for information organizations to serve users' and communities' needs through data and digital service.

II.2.2 *The curriculum emphasizes an evolving body of knowledge that reflects the findings of basic and applied research from relevant fields.*

The MSLIS degree program brings together basic and applied research to teach students about the theoretical/conceptual groundings of the information professions and how these concepts can play out in practice. The typical course combines readings and discussions from the scholarly literature with professional readings and discussions. The assignments combine scholarly work with practical work to create a blend of theory and practice.

For example, INFO 649: Library Programming, is a popular MSLIS elective. The course learning outcomes teach students to:

1. Identify exemplary library programming initiatives
2. Perform community analysis.
3. Develop programming policies, guidelines, and procedures
4. Design library programming initiatives that align with the library's mission
5. Evaluate library programs to measure their effectiveness.

Outcomes 2, 3, and 5 are based on scholarly study of community needs analysis theories and concepts, concepts underlying organizational policy development, concepts of program and outcome evaluation, and more. Outcomes 1 and 4 move these concepts into the world of practice, requiring the investigation of how the scholarly concepts can best be applied to practice. The final project for the course combines theory with practice, as students design detailed library program proposals and evaluation plans.

In a similar vein, the faculty strives to bring a mixture of basic and applied research from the range of the information-related fields to the fuller curriculum.

II.2.3 *The curriculum integrates technology and the theories that underpin its design, application, and use.*

Positioned within a college that covers the breadth of information and computing disciplines and domains, the MSLIS degree program offers students extensive exposure to technology, including technology design, application, and use. MSLIS students must take core courses that teach students about technology, from introductory systems analysis concepts (INFO 530: Foundations of Information Systems under the previous set of core courses) to the analysis of the scope and functionality of hardware and software (INFO 591: Data and Digital Stewardship under the new revised program). Further, four of the eight MSLIS program learning outcomes specifically deal with technology or digital assets:

- Explaining the foundational principles, professional ethics and values, and social and technological contexts within which various information professionals work.

- Analyzing and applying information policies and information-related laws (including the standards and guidelines of pertinent professional organizations) that advance the creative

and ethical applications of information technologies and the delivery of information resources throughout society.

- Using research, data, and technology in sophisticated ways to demonstrate the value of the library and to help individuals and communities address community challenges (e.g., poverty and hunger, population shifts, economic development, preservation of cultural heritage, etc.).

- Helping individuals and communities understand, appraise, organize, manage, and preserve digital assets available through a variety of formal and informal sources and to create and manage their own digital identities and materials effectively.

II.2.4 *The curriculum responds to the needs of a diverse and global society, including the needs of underserved groups.*

Physically located in Philadelphia, one of the most diverse communities in the United States, a commitment to serving a diverse student population and teaching them about the importance of living in, appreciating, and working to improve our diverse global society is a main goal of Drexel. The Drexel University vision lists "Diversity" as one of the six core values of the University, saying that the University strives to:

"Create and support a diverse university in all of its manifestations both because diversity has instrumental value — it makes Drexel's students, faculty, and University community more competitive globally — and because diversity has inherent value — it fosters understanding, respect, and opportunity — thereby forging a better university for all."
(**http://drexel.edu/strategicPlan/**)

In addition, core course INFO506: Users, Services, & Resources, specifically focuses on diversity, as shown in one of the course learning outcomes: "Evaluate the provision of information services that address the needs of a diverse and changing society." Several of the common MSLIS electives also focus on diversity issues, including INFO 650: Public Library Service, INFO 683: Resources for Children, and INFO 684: Resources for Young Adults.

II.2.5 *The curriculum provides direction for future development of a rapidly changing field.*

Required core course INFO 505: Information Professions and Professionals (and its predecessor INFO520: Social Context of the Information Professions) is designed to teach students about the wide range of information professions. Week 10 of INFO505 is dedicated specifically to this topic. Titled "The Future: Changing Roles of Information Professionals," the assigned readings and discussion for the week ensure that every MSLIS student engages in thought and reflection about the future of the information professions and their particular roles in that future.

In addition, ongoing planning input from employers, students, professional staff, and alumni, as described in Chapter 1, assures that the MSLIS curriculum as a whole is continually refreshed and focused toward the ongoing evolution of the information professions. Academic advisors discuss students' evolving career goals and plans with them as they move through their paths of study. Students are also encouraged to discuss their career plans and goals with faculty and peer students.

II.2.6 *The curriculum promotes commitment to continuous professional development and lifelong learning, including the skills and competencies that are needed for the practitioner of the future.*

With its combined focus on theory and practice, the MSLIS curriculum as a whole is designed to prepare students for the full length of their careers in the information professions. In addition,

required core course INFO 505: Information Professions and Professionals (and its predecessor INFO 520: Social Context of the Information Professions) provides an overview of the range of information professions and the skills and competences needed for success in the field. The course also introduces students to the various professional organizations that span the information professions. One of the three major assignments for the course is a Professional Associations Report, for which students study the main professional association in their chosen area of focus and write an analysis of the association's functions and the competences required for success that profession.

Degree electives provide more detailed, focused education relating to the study of the skills and competencies needed for successful careers in the information professions. Several courses are designed specifically to teach students about the skills and competencies of specific career types within the information professions, as well as the conceptual underpinnings of those skills and competencies. These courses include:

- INFO 560 Introduction to Archives I
- INFO 561 Introduction to Archives II
- INFO 648 Healthcare Informatics
- INFO 650 Public Library Service
- INFO 651 Academic Library Service
- INFO 653 Digital Libraries

The full list of courses available to MSLIS students appears on the University course catalog at **http://catalog.drexel.edu/coursedescriptions/quarter/grad/info/**.

II.3 *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 the attainment of student learning outcomes. The curriculum includes appropriate cooperative degree programs, interdisciplinary coursework and research, experiential opportunities, and other similar activities. Course content and sequence relationships within the curriculum are evident.

All MSLIS students are assigned professional academic advisors to help them create cohesive plans of study that match their intellectual and professional goals. Advisors work with students from the point of their admission through graduation to help them think about their educational experience as a combined whole, and to help them tailor their courses of study to their own unique interests and goals.

MSLIS advisors are listed on the CCI web page at http://drexel.edu/cci/resources/current-students/graduate-professional-development/advising/. The graduate level advising team members that aid the MSLIS population were hired based on the strength of their previous pertinent professional experience and education. The Director of Advising seeks to hire advisors with extensive higher education administration experience and/or related education who are devoted to student development and success. Training for new advisors is extensive. The blank template that outlines the areas in which newly hired graduate-level advisors are trained appears in Appendix 2.17.

Upon admission, MSLIS students also receive a welcome letter from Program Director Denise Agosto encouraging students to contact her with questions about the program. Based on the interests outlined in their application essays, accepted students are matched with full-time faculty members. Each faculty member then sends an e-mail welcoming the student to the program and offering to provide curricular guidance. These early contact points begin student-faculty relationships that often last throughout the period of study and beyond.

The MSLIS curriculum provides students with key knowledge through the required core courses. Elective courses enable program individualization and specialization. Students select electives based on consultation with advisors, faculty, peer mentors, and course catalog descriptions. A sample plan of study can be found on the University course catalog at:

http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/#sampleplanofstudytext

Course titles and descriptions, as provided in the course catalog, provide overviews of course content. Academic advisors have access to the course syllabi for each course offered. These syllabi are collected from instructors for every course every term so that students can review them, under the guidance of their advisors, as they make course-selection decisions and work to individualize their programs of study. The MSLIS Program Coordinator e-mails all instructors of record during the first week of each term to collect their syllabi, which all instructors are required to submit. The syllabi are stored on the College's shared server. All academic advising staff and faculty have access to the syllabus collection.

Course content and sequence relationships

Course sequencing is indicated by course numbers and, where appropriate, course titles. For the core courses, the numbers indicate the order in which they should be taken, from lowest number to highest number:

- INFO 515 Introduction to Research in Information Organizations
- INFO 520 Social Context of Information Professions
- INFO 521 Information Users and Services
- INFO 522 Information Access & Resources
- INFO 530 Foundations of Information Systems
- INFO 640 Managing Information Organizations

(for the old set of core courses)

- INFO 505: Information Professions and Professionals
- INFO 506: Users, Services, & Resources
- INFO 507: Leading & Managing Information Organizations
- INFO 590: Organization of Data and Information
- INFO 591: Data and Digital Stewardship
- INFO 890: Capstone Project

(for the old set of core courses)

In addition, for electives, the hundred-level indicates whether the courses are to be taken early in the program (500-level courses), later in the program (600-level courses), or near the end of the program (700-level courses). Courses in the 800-level range are doctoral courses or courses that provide guided experience in professional practice.

Independent Studies

MSLIS students also have the option of designing independent studies to engage in scholarly study of a topic of interest. Students must have a faculty member who oversees the study and determines that the topic meets the learning outcomes of the MSLIS degree program. Students are required to complete the independent study form (Appendix 2.18) stating their project title, project plan, readings, and other details about the planned project. The Information Science department head reviews and approves or rejects all independent study proposals. Students' advisors enroll them in the courses after they are approved. Since the previous accreditation review, MSLIS students have completed fifteen independent study projects, as shown in Table 2.7.

Academic Term	Project/Course Title	Supervising Professor
Fall 2011	Digital Storytelling	Denise Agosto
Winter 2011	Scholarly Research and Writing	Edwin Greenlee

Spring 2011	Advanced Legal Research	Mark Bernstein
Fall 2012	Afro-French Storytelling	Denise Agosto
Winter 2012	Research and Publication	Denise Agosto
Winter 2012	Assess Sci and Tech Resources	Jay Bhatt
Spring 2013	Queer Materials in the Library	Denise Agosto
Fall 2013	Digital Divide and Gender	Catherine Collins
Spring 2013	Advanced Resources Children	Denise Agosto
Fall 2014	Kinesthetic Library Programs	Denise Agosto
Fall 2014	SLiMs Administration	Delia Neuman
Fall 2014	Children's Res & Dev	Denise Agosto
Fall 2014	Teaching Legal Research	Delia Neuman
Summer 014	Research in Storytelling	Denise Agosto
Winter 2016	Digital Library Technologies	Xia Lin

Table 2.7 Independent studies

Steinbright Career Planning

For career assistance for students, CCI uses the Drexel University Steinbright Career Development Center, the centralized career services organization for the University. Information about the Steinbright is located online at: **http://drexel.edu/scdc/**. Steinbright collects relevant job advertisements and those submitted by faculty, staff employers, and alumni for students to refer to when looking for positions. Job ads are put into a searchable database to which all students and alumni have access. Steinbright also provides educational and career counseling with professional career counselors that students can consult during any time of their degree programs. Steinbright provides services both online and face-to-face at its campus offices, located two blocks from CCI's Rush Building at 3201 Arch Street, Suite 250. Additional career services include career fairs, career programs, and resume writing workshops. More information can be found online at: **http://drexel.edu/scdc/career-services/counseling/**.

Peer Curricular and Career Advice

All CCI graduate students have access to CCI's Graduate Student Community discussion board on Blackboard. It includes two major discussion areas: one for term registration questions and one for more general discussions about life as a member of CCI. Peer mentors also provide

curricular and career advice. Graduate peer mentors receive specialized training and must meet academic requirements and mentoring responsibilities. (See http://drexel.edu/cci/resources/current-students/graduate-professional-development/opportunities/graduate-peer-mentors/.) As described in Chapter 4: Students, CCI currently has two graduate peer mentors: one for the MSIS program and one for the MSCS (Master of Science in Computer Science). The LIS graduate peer mentor graduated at the end of the Winter 2016/17 term. The next LIS peer mentors will be hired during the summer of 2017 to continue the program for MSLIS students. To hire peer mentors, e-mails are sent to enrolled MSLIS students inviting them to apply. Michelle Pearl, the Assistant Director of Recruitment interviews student applicants and makes the hiring decisions. She also serves as their employment supervisor. She plans to hire two MSLIS peer mentors. Peer mentors are hired for the period on one calendar year and receive $500 additional financial aid, or $125 for each term they serve.

Experiential Learning Opportunities

During the accreditation review period 2011-2017, experiential learning was included in the curriculum primarily through optional practicum electives. The two practicum courses (INFO893: Practicum I and INFO894: Practicum II) were intended to give students with limited practical work experience in the field guided work experiences. The practicum courses are taught by full-time faculty who oversee students working in the field by guiding their work experiences through interaction via Blackboard. The practicum instructor works with each student at the beginning of the term to set learning objectives. Practicum students journal their experiences and engage in reflective discussion with course instructors and other students taking the practicum courses each term to facilitate peer-to-peer reflective, experiential learning. Students are responsible for obtaining their own practicum positions. Each practicum requires 120 hours of work over the course of a ten-week quarter, in addition to online class participation. In order to enroll, students must have completed at least 24 hours (eight courses) of coursework prior to enrolling. The syllabus for INFO893: Practicum 1 appears in Appendix 2.19.

During the period of review for this self-study, enrollment in the practicum courses was as follows:

Academic Term	INFO893: Practicum I Students enrolled	INFO894: Practicum II Students enrolled
Fall Quarter 11-12	14	5
Winter Quarter 11-12	9	2
Spring Quarter 11-12	3	5
Summer Quarter 11-12	13	1
Fall Quarter 12-13	9	4
Winter Quarter 12-13	15	1
Spring Quarter 12-13	13	5
Summer Quarter 12-13	11	2
Fall Quarter 13-14	9	1
Winter Quarter 13-14	9	1
Spring Quarter 13-14	8	4
Summer Quarter 13-14	4	1
Fall Quarter 14-15	5	1
Winter Quarter 14-15	5	1
Spring Quarter 14-15	5	2
Summer Quarter 14-15	6	0
Fall Quarter 15-16	4	1
Winter Quarter 15-16	3	0
Spring Quarter 15-16	3	0
Summer Quarter 15-16	0	1
Fall Quarter 16-17	4	0
Winter Quarter 16-17	0	1

Spring Quarter 16-17	4	0

Looking at these numbers, it is evident that only a small portion of MSLIS students complete the practicum courses each term. As explained above, the 2014-17 MSLIS curriculum review and revision process showed that a weakness in the curriculum was the limited connection to practical work experience. Moving forward as of fall 2018 the final required core course, to be taken in students' final term of study, will be INFO 890: Capstone Project. This three-credit course will focus on practical work experience, connecting students to term-long practical work experiences in information agencies of their choosing. It will ensure that all MSLIS students will engage in guided, peer-to-peer, reflective, experiential learning. This course will not only correspond to the experiential learning aspect of this standard but also fit into Drexel's niche in experiential education, a core of the University since its founding in 1891. Although there was no formal requirement for practicum course instructors to contact overseeing employers directly during the work term, there will be such a requirement for capstone instructors to enable better assessment of student learning.

II.4 *Design of general and specialized curricula takes into account the statements of knowledge and competencies developed by relevant professional organizations.*

The design of the MSLIS core courses and the specialized electives are informed by the competency documents of a variety of professional organizations. As described in the faculty chapter, the full-time faculty and adjuncts involved with curricular development are active members of relevant organizations and are familiar with the statements of knowledge and standards of these various organizations.

The MSLIS Revision Task Force's final report on recommendations for the degree redesign, the revised program was designed to meet the ALA Core Competencies. Moreover, several of the

elective courses are designed to correspond to other professional organization statements of knowledge and standards. These courses include:

Course	Professional Association
INFO 560: Introduction to Archives I	Society of American Archivists
INFO 561: Introduction to Archives II	Society of American Archivists
INFO 648: Healthcare Informatics	Association of Medical Libraries
INFO 650: Public Library Service	Public Library Association
INFO 651: Academic Library Service	Association of College & Research Libraries
INFO683: Resources for Children	Association for Library Service to Children
INFO684: Resources for Young Adults	Young Adult Library Association

II.5 *Procedures for the continual evaluation of the curriculum are established with input not only from faculty but also representatives from those served. The curriculum is continually evaluated with input not only from faculty, but also representatives from those served including students, employers, alumni, and other constituents. Curricular evaluation is used for ongoing appraisal and to make improvements. Evaluation of the curriculum includes assessment of students' achievements.*

Oversight for curriculum planning, development, and management is provided by the MSLIS Curriculum Committee at the program level and by the CCI Information Science Graduate Curriculum Committee at the department level.

Current members of the MSLIS Curriculum Committee include full-time, tenured LIS faculty members Denise Agosto (chair), Jane Greenberg, Xia Lin, and Jung-ran Park, with input and professional staff support from CCI Director of Recruitment Matt Lechtenberg. The committee meets on a biweekly basis to provide ongoing degree program evaluation and assessment, to

review proposals for course revisions and new courses, and to consider any other MSLIS program-related curricular issues that arise.

The MSLIS Curriculum Committee does not have the authority to make changes to the curriculum but rather makes suggestions for changes to the CCI Information Science Department Graduate Curriculum Committee, which reviews and votes on proposals for revisions. Members of the CCI Information Science Department Graduate Curriculum Committee include the Assistant Department Head for Graduate Affairs and the program directors for all of the graduate degree programs in the Information Science Department, with the exception of the PhD program director.

Approved proposals are next presented to the IS department full-time and part-time faculty and the advising staff at weekly Information Science Department meetings for discussion and voting. Any approved proposals are then sent to the CCI College-wide Curriculum Committee, which discusses and votes on them. When a new program or program revision is approved, the chair of the College Curriculum Committee posts a summary of the revision on a site accessible by the faculty and notifies the faculty of the revision. The faculty has seven calendar days to offer comments and feedback or to request a vote of all the faculty of the College. If no vote is requested, the posted revision is considered approved. Approved proposals then move to the University level, going to the University's Senate Committee on Academic Affairs (SCAA) for discussion and voting. Finally, after proposals are voted into acceptance by SCAA, any changes are made to the official course catalog, and curriculum changes become official. Table 2.8 provides an example of this process and timeline.

Activity	Participants	Date
Initial discussion of proposal to revise MSLIS degree	Information Science Department faculty	March 17, 2015
Second discussion of proposal to revise MSLIS	Information Science Department faculty	June 2, 2015

degree		
Writing of degree revision proposal document	MSLIS Curriculum Committee	June 3, 2015 – October 10, 2015
Vote on degree revision proposal	Information Science Department Graduate Curriculum Committee	October 11, 2016
Vote on degree revision proposal	Information Science Department faculty	November 16, 2016
Vote on degree revision proposal	College-Wide Curriculum Committee	November 25, 2016
Posting of approved proposal on CCI intranet	College-Wide Curriculum Committee	November 25, 2016
Submission of final revised proposal to SCAA (University Senate Committee on Academic Affairs)	College-Wide Curriculum Committee	December 5, 2016
Final approval of proposal	SCAA	February 21, 2017
University catalog content update	Provost's office	September 1, 2017

Table 2.8 Example of the curriculum change process and timeline

Course coordinators are selected from the full-time faculty at the time of creation of a new course. Coordinators serve open-ended terms until the time of a major course revision or until course coordination load balancing necessitates reassignment. All instructors for a course give the same assignments. Student feedback on assignments is collected each term on student course evaluations. Based on this feedback, if an instructor wishes to change an assignment, he or she works with the course coordinator to develop a replacement assignment. Annual reviews by the ALA Accreditation Board serve to collect curriculum evaluation content from alumni, employers, students, and professional staff. Course coordinators are responsible for incorporating all of this course feedback into their courses on a continuing basis.

Proposals for new courses or revisions to existing courses can come from individual faculty members, groups of faculty with shared teaching/research interests, or CCI administration. New courses are typically offered first as INFO 780 Special Topics courses to test levels of student interest. Courses can be offered up to two times as special topics before they must be regularized as official courses in the course catalog.

II.6 *The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of the curriculum.*

All MSLIS courses are taught by full-time or part-time CCI faculty, adjuncts, or Ph.D. students. Ph.D. students receive a stipend and tuition and fees benefits and are mentored by their dissertation advisor or another member of the full-time faculty with expertise in the course subject matter. Applicants for new adjunct positions are interviewed and asked to give a teaching presentation before being hired. They have access to all the available course materials and, in many cases, the adjunct works with a full-time faculty member to prepare his or her course. A full-time faculty member serves as the course coordinator for each course taught in the College. Each course coordinator serves as the contact for all communication related to the course, overseeing any adjuncts who teach the course, approving textbook selection and other readings, and making continual updates to keep the course relevant.

Any changes made to a course that affect the syllabus (other than updates to assigned readings or assignments) or require changes to course catalog content must be discussed and voted on by the Information Science Department Graduate Curriculum Committee. After approval, they are discussed and voted on by the College-wide Curriculum Committee. Next, they are presented to the full-time and adjunct faculty via e-mail for discussion. If there are further changes suggested, the modified documents are then returned to the College Curriculum Committee for a next round of discussion and voting, and then returned to the faculty for additional discussion. After there are no additional changes suggested, the faculty-approved documents are then sent to the

University's Senate Committee on Academic Affairs (SCAA) for discussion and voting. Finally, the approved syllabus is used for all sections of the course, and any approved changes are made to the course catalog content.

Course content (course module topics, assignments, and readings) are the same for all sections of any course, regardless of who teaches it. All course instructors are encouraged to make suggestions for updating their courses. Course coordinators are responsible for gathering and evaluating suggestions for course updates and for informing any course instructors of changes in content. Any other Information Science Department faculty also can make suggestions for course content updates and revisions, and they might do so if content in courses they teach are dependent on courses taught by others.

All courses are evaluated every term using the student course evaluation form. The course evaluation form, available in Appendix 2.20, includes questions about the degree to which the course outcomes are addressed, the quality of the course design and instruction, and the teaching efficacy of the instructor. The form also asks students for suggestions for improving the course. Faculty must report the results of their course evaluations on their annual reviews, and they are required during the annual review process to reflect on the results and use them to improve their teaching.

The 2014-17 MSLIS curriculum review process showed that there was limited opportunity for professional staff, employers, and alumni to provide input on curricular design and development. For this reason, we have begun ALA Accreditation Board annual reviews of the curriculum. The first such review took place January 10, 2017, on the Drexel campus, where the MSLIS Program Director Denise Agosto presented the plans for the new degree program to the board and asked for board input. Board members provided suggestions for the curriculum at that meeting and continued the discussion via email over the ensuing month. The main curriculum suggestions from the board included:

1. In the past couple years, there have been student complaints that some of the courses listed in the course catalog are infrequently or never offered. In response, under the guidance of the Information Science Department Graduate Curriculum Committee, the MSLIS Curriculum Committee reviewed the courses in the course catalog and made suggestions for courses to remove from the catalog. The Graduate Curriculum Committee reviewed and approved the suggestions and then submitted a list of inactive courses to be removed from the catalog to SCAA. The proposal was approved. The courses identified will be removed from the course catalog starting in the fall term of AY 2017/18. Courses to be eliminated are listed on Table 2.9.

Course	Reason For Removal
INFO642: Managing Digital Projects	Low student enrollment
INFO653: Digital Libraries	Much content overlap with INFO657: Digital Library Technologies. Unique content to be added to INFO657.
INFO672: Resources in the Humanities	Outdated content and approach. New version to be developed as a new course.
INFO673: Resources in Social Sciences	Outdated content and approach. New version to be developed as a new course.

Table 2.9. MSLIS Courses to be Removed from the Course Catalog

Courses are scheduled one year in advance. The schedule of MSLIS courses to be offered during AY 2017/18 appears in Appendix 2.21.

2. Curricular guidance tools in the form of lists of recommended courses tied to specific careers would be helpful for student curriculum planning. In response, the MSLIS Curriculum Committee created a list of careers related to each of the three major areas of the new MSLIS degree program. These careers range from job titles such as Digital Content Specialist, to Archival Specialist, to Youth Services Specialist, and more. Advisors will use the MSLIS Career Paths Advising Sheet, which appears in Appendix 2.22, to help students build individualized

courses of study that can lead them toward their desired careers. Faculty also will help students with this guidance process.

3. To maximize the value of the new capstone work experience course (INFO 890: Capstone Project), the course coordinator should create ongoing relationships with a set of employers representing broad degree career areas (academic libraries, special libraries, public libraries, government agencies, health care companies) with ongoing projects on which students can work for their capstone projects. In response, the MSLIS program director has begun working to form relationships with area libraries that will supervise student work experiences for the capstone project, both in-person and virtually. As of the drafting of this self-study report, informal agreements of collaboration are in process with: 1) The J. Lewis Crozer Library (Chester, PA), 2) Drexel University Libraries, and 3) The Free Library of Philadelphia, each of which has tentatively agreed to work with faculty to oversee MSLIS students working on capstone projects that will benefit both the students (local students and distant students) and the libraries. During AY 2017/18, the MSLIS program director will begin to formalize these agreements, with an expected capstone project course start date of winter term of AY 2018/19.

II.7 *The program demonstrates how the results of the evaluation of the curriculum are systematically used to improve the program and to plan for the future.*

As described above, course coordinators are tasked with reviewing their courses each term to ensure relevancy, and the students who take the courses provide formal written course evaluations each term. Annual reviews by the ALA Accreditation Board serve to collect additional curriculum evaluation content from alumni, employers, and professional staff. The MSLIS Curriculum Committee and the CCI Information Science Department Graduate Curriculum Committee are responsible for viewing the degree curriculum as a whole, ensuring that coordination between courses is updated and closely aligned with program learning outcomes. Course coordinators are tasked with integrating course feedback and revision

suggestions into courses each term based on the results of the student evaluations. All student evaluation data are saved and archived in the University's AEFIS system (Academic Evaluation, Feedback, and Intervention System), the software and database used for online administration of course evaluations.

In addition, administrators review course evaluation data each term for teaching quality purposes and discuss problematic courses with faculty during their annual reviews. All full-time faculty also are required to reflect on the quality of their teaching on their annual review forms and to consider ways of improving their teaching and mentoring of students.

Feedback from students and from alumni, professional staff, and employers also are used to guide future curriculum planning. As described above in the discussion of the MSLIS curriculum planning and revision process, the MSLIS Revision Task Force interviewed area employers to understand their hiring needs and spoke with students, professional staff, and alumni to learn about their visions of the evolving field. In an effort to increase input from groups other than faculty and students, the MSLIS Curriculum Committee will continue to oversee annual curriculum discussions and reviews with alumni, employer, and staff representatives (as well as student and faculty representatives) in the form of annual meetings with the ALA Accreditation Board.

Summary

CCI's MSLIS degree combines theoretical and practical study with individualized curriculum paths that enable students to focus their courses of study toward their specific interests within the broad range of information professions. The program is designed to enable students to achieve the MSLIS program learning objectives, which are the result of ongoing systematic planning and review by faculty, professional staff, student, alumni, and employer constituencies, who also play a role in continuous program evaluation. During the review period, the biggest challenge

relating to curriculum planning and delivery has been decreasing enrollment, which has led to a need to reduce the number of courses offered each term. Up to this point, most of the reduction has been in terms of less frequent offering of elective courses. Reduced enrollment does continue to be an issue, however, and it poses a future threat to the number and breadth of electives the program can support.

Both the degree program that was in place from 2011-17 and the newly revised program are tied to the knowledge and competencies of several professional associations, most notably ALA's Core Competencies of Librarianship, to which the required core courses are closely tied. The new program is a result of ongoing systematic curriculum planning and revision and reflects both the general technological bent of the College and its interdisciplinary, experiential educational approach.

DREXEL UNIVERSITY College of Computing & Informatics

CHAPTER 3: FACULTY

Overview

Since the last self-study, the College has changed from *The iSchool at Drexel, College of Information Science and Technology* to the College of Computing & Informatics (CCI), and the new Information Science Department (IS Department) was instituted in 2015. The College currently has a total number of sixty-seven full-time and thirty-three adjunct faculty members. Of those, thirty-three full-time and twenty adjunct faculty members are in the IS Department. In this chapter, we report and discuss all the faculty in the IS department. As discussed below, the IS faculty is truly interdisciplinary. They are productive in research and innovative in teaching and curriculum work. Despite the re-organization of the College, the IS faculty remains strong.

Response to the Standards

III.1 *The program has a faculty capable of accomplishing program objectives. Full-time faculty members (tenured/tenure-track and non-tenure-track) are qualified for appointment to the graduate faculty within the parent institution. The full-time faculty are sufficient in number and in diversity of specialties to carry out the major share of the teaching, research, and service activities required for the program, wherever and however delivered. Part-time faculty, when appointed, balance and complement the competencies of the full-time tenured/tenure-track and non-tenure-track faculty and are integral to the program. 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 the program.*

It has been the objective of the College, and the IS Department, to have a high-quality, research-oriented faculty who can design and deliver an innovative, cutting-edge curriculum for the MSLIS degree program. We have been fortunate to enjoy a strong faculty and an interdisciplinary environment to foster collaborative research and education in LIS and other related fields. Table 3.1 is a summary of our faculty in terms of their ranks and disciplines. As of

spring 2017, there are nineteen tenured professors (including associate and full professors), six tenure-track assistant professors, and nine teaching professors. Their training and background are divided into three groups: those who have a PhD from LIS or information science schools, those who have a PhD in computer science, computer engineering, or human-centered computing, and those who have PhDs in business, engineering, communication and others. Appendix 3.2 provides a complete set of the thirty-four full-time faculty members. Their degree-granting schools and areas of expertise are provided in Appendix 3.1.

Table 3.1 A summary of Full-time faculty in the Information Science Department

Faculty/Disciplinary background	LIS/IS	Computing	Others	Total
Tenured	6	8	5	19
Tenure-Track	4	1	1	6
Teaching	4		5	9
Total	14	9	11	34

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

The top priority in Drexel University's Strategic Plan is to "Invest in Academic Excellence." Through its Office of Faculty Affairs, the University has developed and implemented policies, procedures, and programs to enhance faculty recruitment, success, and retention. The College has worked closely with the office to create and maintain an excellent learning and research environment for faculty and students in the College.

Faculty Appointments

The College and the ISD maintain an active role in recruiting high-quality faculty to meet the needs of a changing information science environment. Table 3.2 shows the new appointments for full-time faculty during 2011-16. In each year of the period, the dean or the department head appointed a search committee of five faculty to conduct a nationwide search for the best

qualified candidates to fill our open positions. A general strategy of our hiring is to identify and recruit the best candidates for the positions regardless of the candidate's academic ranking and disciplinary backgrounds. Meanwhile, the dean and the faculty also will discuss and develop a list of priority areas that the College needs the most. As a result, we have successfully recruited both experienced veterans (such as full professors with tenure) and newly graduated PhDs to meet our needs.

Hiring full professors with tenure helps to establish needed teaching and research areas and fills the leadership vacuum left open by the retirement of senior faculty members. Examples of such hiring include Dr. Ellen Bass, who joined us as a full professor with tenure after more than 11 years of teaching and research service at the University of Virginia. Dr. Bass brought significant funded research and leadership experience to Drexel, and became the first head of the IS Department. Dr. Jane Greenberg also joined us as a full professor in 2014 after more than 15 years of service at the University of North Carolina at Chapter Hill. She brought her significant accomplishments in metadata research as well as her "Metadata Research Center" to Drexel, which is now one of the most active research centers in the IS Department. In addition, in 2016, the College appointed a new dean, Dr. Yi Deng, after a nationwide search. Dean Yi Deng has been a leader in the field of informatics for many years.

Hiring newly graduated PhDs strengthens the emerging areas that are critical to the LIS curriculum. New PhDs study and research in the cutting-edge areas that are often needed to enhance the curriculum. Two of the most recent hirings, for instance, have allowed us to develop new courses in the areas of Digital Curation and Digital Humanities (Poole) and Data Science (Williams).

Table 3.2 New appointments of Full-time faculty, 2011-2016

Year of Appointment	Faculty	Broad Specialization
2016	Jake Williams (Tenure-track)	Data science
	Yi Deng (Dean, tenured)	Computing and informatics
2015	Alex Poole (Tenure-track)	Digital curation and digital humanities

2014	Jane Greenberg (Tenured)	Metadata & knowledge organization
	Gabriela Marcu (Tenure-Track)	Human-computer interaction
2013	Lori Richards (Tenure-track)	Digital archives, digital curation
	Erjia Yan (Tenure-track)	Scholarly communication, network science
	Ellen Bass (Tenured)	Human-centered design, human-computer interaction
2012	Chris Carroll (teaching)	Information technology
2011	Aleksandra Sarcevic (Tenure-track)	Human-computer interaction, healthcare informatics

Tenure and Promotion

The tenure and promotion policy of Drexel University (Appendix 3.3) makes it explicit that each candidate should have a strong record of accomplishment in teaching, research, and service and have demonstrated outstanding performance in either research or teaching. The judgment to grant tenure/promotion is based on a comprehensive review of the candidate within three areas: research and scholarship, teaching activities, and service to the University and professional fields. The review typically includes reviews by the Tenure and Promotion committees of the Department, the College, and the University, with independent letters from the department head and the dean of the College. To achieve tenure, the faculty member must be an expert in his or her fields and meet appropriate national/international standards of excellence. To be promoted to full professor, in addition to exhibiting excellence in all three areas, the faculty member must demonstrate continued growth in research and scholarship, and significant contributions to knowledge and teaching. Leaderships in all levels of service also are expected.

Similarly, Drexel University has a Teaching Faculty Policy (Appendix 3.4) to provide guidelines for appointment, evaluation, and promotion of teaching faculty. To be promoted to professor, the teaching faculty must demonstrate continued excellence in classroom teaching, leadership in service, and continued professional development and leadership in matters of curriculum development, methodological innovation, or appropriate scholarly contribution.

Table 3.3 shows the tenure and promotion activities of the IS Department from 2011-16. As the table shows, on the tenure-track side, six faculty members received tenure award and four tenured associate professors were promoted to (full) professor during this period. On the non-tenure-track side, two were promoted from associate teaching professor to teaching professor; three were promoted from assistant teaching professor to associate teaching professor. In addition, there also were four unsuccessful tenure cases (each case is different and not appropriate to be discussed here) and six senior faculty members' retirement during this period.

Table 3.3 Tenure and Promotion activities in the IS Department, 2011-2016

Year	Faculty	Actions
2016	Linda Marion	Teaching faculty promoted to full teaching professor
	Peter Grillo	Teaching faculty promoted to full teaching professor
	Weimao Ke	Awarded tenure and promoted to associate professor
	Andrea Forte	Awarded tenure and promoted to associate professor
2015	Denise Agosto	Promoted to full professor (with tenure)
2014	Catherine D. Collins	Teaching faculty promoted to associate teaching professor
	Michelle L. Rogers	Awarded tenure and promoted to associate professor
	Christopher C. Yang	Awarded tenure (as an associate professor)
2013	Yuan An	Awarded tenure and promoted to associate professor
2012	Alison Lewis	Teaching faculty promoted to associate teaching professor
	Delia Newman	Promoted to full professor (with tenure)
2011	Xia Lin	Promoted to full professor (with tenure)
	Greg Hislop	Promoted to full professor (with tenure)
	Jung-ran Park	Awarded tenure and promoted to associate professor
	Jennifer Booker	Teaching faculty promoted to associate teaching professor

Adjunct Faculty

The IS Department maintains an active pool of the best information professionals as teaching adjuncts. An ad is regularly posted on the College's website to recruit adjunct faculty members. When applications for adjuncts are received, the associate department heads (one for Graduate Academic Affairs, and the other for undergraduate) will first screen the applications for their qualifications. The qualified applicant will then be interviewed by a department head and one or more faculty members with backgrounds matching the candidate. After a successful interview, the applicant will be added to the adjunct pool with notes on what courses they are qualified to teach. During the course schedule time, staff and the associate department heads will consult the pool for available adjuncts when they are needed for courses. When the adjunct is offered a course to teach, he or she will have access to the shell for his or her course, to the course coordinator, and to the "Teaching Excellence" shell, which provide general guidelines or discussions on CCI teaching practices. As with courses taught by full-time faculty, adjunct-taught sections are subjected to student midterm and end-of-term evaluations. The department head pays particular attention to the evaluation results at the end of each term. She will either discuss the evaluation results with the adjunct directly or, in some cases, make notes of the adjunct and move him or her to a "do not hire" list when there are clear problems in the evaluation results.

The adjunct faculty contributes significantly to the educational programs of the College, primarily because they connect students' learning to the world of practice and provide a tie to the "authentic learning" that is essential to career-oriented programs, like the MSLIS. Adjuncts teaching our LIS courses are capable and experienced information professionals who can integrate current practice within the content of the courses they are assigned to teach. Table 3.4 provides a list of adjunct faculty who teach in our LIS program. We are particularly fortunate in the number of adjunct faculty who have been part of our teaching community over an extended period of time.

Table 3.4 List of adjunct faculty who teach LIS courses

Faculty name	Background	Courses taught
Antracoli, Alexis	Drexel University Archivist	755, Electronic Records Management
Bross, Theodore	Associate Director of Administrative Information Services, Princeton University	530, Foundations of Info Systems 540, Perspectives on Info Systems
Karel, Thomas A.	Collection Development Librarians Franklin and Marshall College	651, Academic Library Service
Morton-Owens, Emily	Applications & Systems Manager, Seattle Public Library	657, Digital Library Technologies
Packman, Hedra	Director of Library Service, Free Library of Philadelphia	683 Resources for Children 560, Introduction to Archives I
Sieczkiewicz, Robert	Research Librarian of Digital Scholarship, Susquehanna University	561, Introduction to Archives II 756, Digital Preservation
Valenti, Elizabeth	Director of Information Technology, The New York Law Institute	552, Intro to Web Design 644, Knowledge Assets Management in Organizations
Waxman, Jennifer	Archivist, the National WWII Museum, New York University	756, Digital Preservation
Willever-Farr, Heather	CCI PhD student	560, Introduction to Archives I 751, Archival Appraisal

Faculty Mentoring

The IS Department has developed a Mentoring Program to provide untenured junior faculty an opportunity to shape a mentoring program that meets their needs. It is a part of a larger effort to provide an environment that is conducive to faculty success and retention. Each junior faculty member selects a set of preferred mentoring opportunities and tracks them during the academic year. The mentoring opportunities include senior mentoring (i.e., senior faculty mentoring junior faculty), peer-group mentoring (i.e., same-rank faculty discussing their common problems and practice together), external senior mentoring (i.e., inviting well-known faculty in the field to mentor junior faculty), etc.

Appendix 3.5 shows the newly updated description for the mentoring program. A form is designed to collect input from junior faculty as well as from senior and teaching faculty and administrators. Data on various issues surrounding the mentoring process, opportunities, and method/delivery format were gathered. Expectations and perceptions on the importance of mentorship from senior faculty were also gathered. Junior faculty members are expected to keep the department head informed of his or her progress or any issues encountered during the year.

The following University mentoring initiatives and resources are worthy of mention:

- The Drexel Office of Faculty Development & Equity in the Division of the Provost has offered a program focused on faculty mentoring: a Career Development Award program (**http://drexel.edu/facultyaffairs/development/career-development/)**, which is designed to help junior faculty members increase their exposure to colleagues at other institutions who can be collaborators and role models while introducing outside scholars to faculty and students at Drexel.
- Drexel's initiative for New Scholarship, Pedagogy, Innovation & Research in Education (INSPIRE) is a university-wide effort to improve the quality of the academic experience for all Drexel students through technology-enhanced learning. It provides a repository of knowledge resources to facilitate a community of sharing among faculty and professional staff (**http://drexel.edu/inspire/resources-archives/resources/**)

- The Drexel Office of Faculty Affairs maintains an institutional subscription to Magna Mentor Common (**http://drexel.edu/facultyaffairs/teaching-learning/MAGNA-mentor-commons/**) , a continuously growing collection of professional development videos, all twenty minutes in length, focused on different learning and development topics including: Blended Learning, Classroom Management, Course Design, Grading and Feedback, Flipped Courses, Online Course Management, Student Engagement and many more.
- The University's Online Learning Council provides resources and support for improving online education (**http://drexel.edu/inspire/about/olc/**).

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

The College and Drexel University have explicit and equitable faculty personnel policies and procedures that are published and accessible on the University's human resource website (**http://drexel.edu/hr/**) and the College's website. The dean and department head always remind the search committee to strictly follow the personnel policies and procedures during faculty hiring. When advertising new faculty positions, the following language is typically used:

> *Drexel University is an Equal Opportunity/Affirmative Action Employer and is proactively committed to diversity and inclusion in all of its policies, practices and services. We are especially interested in qualified candidates who can contribute to the varied diversity and excellence of the academic community, and all of its complements.*

Whenever necessary, the search committee will also seek help from the University's Office of Equality and Diversity to clarify issues or target specific under-represented groups.

Current distribution of faculty in terms of gender and ethnicity are shown in Table 3.5.

Table 3.5 Full-Time Faculty Composition, Spring 2017

Category	Faculty Percentage
Gender	
Female	53%
Male	47%
Ethnicity	
African American	6%
Asian/Pacific Islander	29%
White	59%
Unknown (no response)	6%

III.4 *The qualifications of each faculty member include competence in designated teaching areas, technological skills and knowledge as appropriate, effectiveness in teaching, and active participation in relevant organizations.*

Competence of Faculty

As shown in their CVs (Appendix 3.2), our faculty members are all experts in their respective fields. The diverse and interdisciplinary backgrounds of the faculty, which include PhDs in the areas of Library and Information Science, Computer Science, Human-Centered Computing, Business, Communication, Linguistics, Mathematics, Computer Engineering, System Engineering, and Production Engineering, have enabled us to offer a wide variety of courses in the LIS curriculum. Because the College also offers master's degrees in information systems (MSIS) and Health Informatics (MSHI), and because many faculty members do research in the design and use of technological systems, in general, and for specific types of users, LIS students have many choices of the courses taught by a faculty conversant in a range of information and communications technologies, and with their associated issues and techniques.

The faculty in the IS department has been very productive in recent years. They have contributed significantly to their fields and generated measurable outcomes in publications (Appendix 3.6)

and external research funding (Appendix 3.7). Details of their contributions are discussed in Standard III.5.

Many faculty members also are engaged in high-impact service to their professional fields. Appendix 3.8 provides a sample list of high-impact service activities by the faculty: 6 faculty members serve as the editor-in-chief for six different journals, twenty-three editorial boards of major journals are served by one or more Drexel IS faculty members, and eleven major conferences have been chaired by an IS faculty member.

Finally, all the faculty members are members of one and more professional associations. These association memberships may relate to teaching, research, and/or professional practice, and include both local/regional and national service. Examples of these professional associations include:

- Association for Library and Information Science Education (ALISE)
- American Library Association (ALA)
- American Society for Information Science & Technology (ASIST)
- Association for Computing Machinery (various SIGs such as SIG-IR and SIG-CHI) (ACM)
- American Association for the Advancement of Science (AAAS)
- International Society for Scientometrics and Infometrics (ISSI)
- International Center for Information Ethics
- Pennsylvania Library Association
- Pennsylvania School Library Association
- Society for Competitive Intelligence Professionals
- Human Factors and Ergonomics Society
- IEEE Systems, Man and Cybernetics Society

Effectiveness in Teaching

Student course evaluation is an important process for evaluating a faculty's teaching efforts, results, and effectiveness. Every course taught in the College is evaluated twice in a term, once in the mid-term to flag any significant issues and once at the end of the term. These evaluations include both quantitative ratings and qualitative comments. To encourage completion of these forms, reminders are sent directly to students, and instructors are asked to reinforce these requirements with their own requests. The evaluative results are systematically reviewed by the department head or the associative department heads. They are reported in each faculty member's Faculty Annual Review and Performance Plan (FARRP). After each term, the department head also discuss the course evaluation results with each faculty member and suggested improvement when there appear to be issues. .

The quantitative ratings are done on a 10-point scale, with 10 being the best. Two overall questions are used for all the courses:

A) "Overall, how would you rate the instructor?"
B) "Overall, I would rate the amount I learned in this course."

Data collected for these two questions are often used as an overall indicator of teaching effectiveness of the faculty. Overall, our faculty has achieved excellent results. On average, the overall instructor rating is over 8.27 on a scale of 10, and the overall learning in a course is also rated over 8.25. Tables 3.6 and 3.7 report the rating results in recent years.

Students' verbal responses and comments also are an important part of the evaluations. During the faculty evaluation or tenure/promotion review, administrators or committee members often look through the patterns in the verbal reviews of all the courses taught by a faculty member to identify his or her strengths and weaknesses.

Table 3.6 Average rating for an instructor on the scale of 10

Year	Fall	Winter	Spring	Summer	Average
2015-2016	8.03	7.8	8.55	8.32	8.17
2014-2015	8.39	8.4	8.12	8.35	8.31

2013-2014	8.29	8.22	8.17	8.37	8.26
2012-2013	8.3	8.2	8.8	8.23	8.38
2011-2012	7.7	8.45	8.53	8.27	8.23
Average	8.14	8.21	8.43	8.31	8.27

Table 3.7 Average rating for a course on the scale of 10

Year	Fall	Winter	Spring	Summer	Average
2015-2016	8.18	7.96	8.42	8.41	8.24
2014-2015	8.36	8.29	7.99	8.40	8.26
2013-2014	8.26	8.14	8.14	8.39	8.23
2012-2013	8.3	8.2	8.7	8.16	8.34
2011-2012	7.7	8.41	8.46	8.38	8.19
Average	8.12	8.2	8.34	8.35	8.25

The response rate for student course evaluation varies from year to year, averaging around 50% (Table 3.8) To encourage students' responses, two weeks before the end of a quarter term, the Program Coordinator Dave Raiken sends reminder emails to students with links to the online evaluation form, as well as emails to faculty asking them to remind students to complete the forms. In addition, during department meetings, faculty are reminded of the importance of encouraging students to provide evaluation feedback. .

Table 3.8 Average response rates of student course evaluation.

Year	*2012-13*	*2013-14*	*2014-2015*	*2015-16*	*2016-17*
Response rate	*51.28%*	*54.04%*	*51.09%*	*47.59%*	*55.64%*

III.5 *For each full-time faculty member, the qualifications include a sustained record of accomplishment in research or other appropriate scholarship (such as creative and professional activities) that contribute to the knowledge base of the field and to their professional development.*

The College of Computing and Informatics (CCI) has attracted and maintained a group of world-class faculty to support its missions. They are the vanguard of discoveries in the computer science and library and information science fields. Each faculty member has a sustained record of research or educational accomplishment as shown in their CVs (Appendix 3.2). All the tenure-track faculty members in the IS department are required to maintain an active research agenda and publish research results in major journals and conferences. Many of the teaching faculty members also are involved in research and publications.

Appendix 3.6 provides a list of more than 140 peer-reviewed research publications by the faculty during the review period. The list was created through a comprehensive search through the Web of Knowledge. It is not a complete list of the entire faculty's publications. Nevertheless, it shows the breadth and depth of the publications. The quality of these publications can be demonstrated by a summary of citation analysis from the Web of Science (Appendix 3.9). As the summary shows, there are a total of 597 citations to the faculty's publications during this period, which is almost a hundred citations per year and four citations per paper on average, both of which are significant numbers.

The quality of the faculty publications can also be shown by their sources, which include highly-ranked journals and conferences. Table 3.9 shows the number of papers in selected highly-ranked journals. The data were obtained from the Web of Science.

Table 3.9 Number of publications in selected highly-ranked journals

Journal	Number of publications in 2011-17
Journal of the Association for Information Science and Technology	20
Journal of Informetrics	8
Scientometrics	7
International Journal of Computer-Supported Collaborative Learning	6
Journal of Documentation	5
ACM Transactions on Intelligent Systems and	4

Technology	
IEEE Transactions on Human-Machine Systems	4
IEEE-ACM Transactions on Computational Biology and Bioinformatics	4
Information Research-an International Electronic Journal	3
ACM Transactions on Computer-Human Interaction	2
Library Quarterly	2

In addition to publications, the other major accomplishment of the faculty is to obtain significant external research funding to support their research. Appendix 3.7 provides a full list of funded research projects during the period, with total funding over 15 million dollars. Table 3.10 lists selected LIS-related funded research projects.

Table 3.10 Selected LIS-Specific Funded Research Projects

FY	CCI Faculty	PI/Co-PI	Sponsor	Title	Amount Awarded
16	GREENBERG, Jane	PI	CVDI	CVDI: Transforming Data Adaptation Science and Service: An Innovative Visual Ontology Application	$ 30,753
16	BASS, Ellen	Co-PI	Agency for Healthcare Research and Quality/DHHS	Information Needs of Homecare Nurses During Admission and Care Planning	$ 296,122
15	YAN, Erjia	PI	IMLS	Building an entity-based research framework to enhance digital services on knowledge discovery and delivery	$ 247,713
15	SARCEVIC, Aleksandra	PI	NIH	Automatic Workflow Capture & Analysis for Improving Trauma Resuscitation Outcomes	$ 261,722
15	GREENBERG, Jane	PI	Duke University	ABI Development: Dryad: Scalable Sustainable Infrastructure for the Publication of Data	$ 267,088

14	AGOSTO, Denise	PI	OCLC/ALISE	A New Role for Libraries: Promoting Teens' Safety and Security in the Digital Age	$ 15,000
14	PARK, Jung-ran	PI	IMLS	Positioning a new generation of cataloging	$ 498,773
14	TURNER, Deborah	PI	IMLS	The Oral Present, Urban Library Services	$ 294,537
13	SARCEVIC, Aleksandra	PI	NSF	CAREER: Supporting Fast-Response Medical Teams Through Interactive Information Displays	$ 522,952
13	ROGERS, Michelle	PI	Robert Wood Johnson Foundation	Examining the effectiveness of Episurveyor to enhance an mHealth intervention combatting childhood obesity in a US low-income urban setting.	$ 72,952
12	GRUBESIC, Anthony	PI	IMLS	Geographic Information Librarianship	$ 345,271
12	LIN, Xia	PI	IMLS	Improving Search, Sesnsemaking	$ 413,378
12	LIN, Xia	PI	Astra Zeneca - SIEVE	Development of Visual Analytic Interfaces for RDF-based Clinical Data	$ 49,575
12	NEUMAN, Delia	Co-PI	City of Philadelphia	Citywide Literacy Provider Census	$ 25,307
11	LIN, Xia	PI	IMLS	Exploring Common Tools for Meaningful Concept Displays (MCD)	$ 47,621

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.*

As discussed earlier, all the faculty in the IS Department are experts in their respective fields and have substantial years of teaching experience. All but one full-time faculty members have PhDs in relevant fields. They are trained in many different disciplines and work together in a collaborative environment (See Appendix 3.1 for their degree-granting schools and their areas of expertise). They have crossed the boundary of the department to collaborate with the faculty in other units for research and teaching. For example, Professor Linda Marion has served on the University's Online Learning Council to coordinate and improve online teaching practice both within the College and across colleges within the University; Professor Delia Neuman has collaborated with the University's assessment coordinator to plan and implement assessment of CCI courses; and Professor Prudence Dalrymple has teamed up with faculty members from the nursing school to offer a "Nursing Informatics" course

The Intellectual and Collaborative Environment

The faculty in the IS department values the intellectual and collaborative environment that supports their research and teaching. In recent years, they have been participated actively in three research centers, describe below, established recently in the College.

The Center for the Study of Libraries, Information, and Society (CSLIS)

http://drexel.edu/cci/research/centers-institutes/CSLIS/

> CSLIS is a center for study and cooperative work in learning more about the ways in which libraries operate and function in society as community information centers and as contemporary spaces for community engagement and lifelong learning. It provides a platform for research, collaboration, and ongoing discussion about topics and issues specific to library and information science (LIS), LIS education, libraries and librarians, and services in various information organization contexts. With an executive director, five steering committee members, eighteen additional affiliated faculty members, and one or more (external) fellows annually, the Center supports such activities as presentations, panel discussions, and lectures by invited internal and external promising researchers on selected topics or issues.

Metadata Research Center (MRC)

https://cci.drexel.edu/mrc/

MRC leads and participates in research addressing significant questions and discovering metadata solutions for today's most pressing information management challenges. Its goal is to advance research in metadata semantics and ontologies. Its research projects have been funded by the National Science Foundation (NSF), the National Consortium for Data Science (NCDS), National Institutes of Health (NIH), and Institute of Museum and Library Services (IMLS).

Center for Visual and Decision Informatics (CVDI)

http://www.nsfcvdi.org/wordpress/

CVDI is a multi-university – industry research center established as an NSF I/UCRC. It brings together analytic, visual, and perceptual techniques by advancing the state-of-the-art in the research fields of Information Visualization, Visual Analytics, and Automated Analysis. The Center's mission is to research and develop next-generation visual and decision support tools and techniques to enable decision makers in government and industry to fundamentally improve the way their organization's information is interpreted. CVDI recently entered its second stage with additional university and industry partners.

III.7 *Faculty assignments relate to the needs of the program and to the competencies 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.*

Teaching load

Drexel University encourages the faculty to keep a balanced load of research, teaching, and service. Its regular teaching load for tenured/tenure-track faculty is two courses per term. Faculty

with funded research may request buy-downs from the regular load. Faculty with heavy service loads may also reduce the teaching load as agreed by the faculty members and the administrators of the College. Generally, a faculty member's teaching load will not be reduced to less than teaching three courses per academic year.

Faculty members who have received tenure can apply for a sabbatical leave every seven years to enrich their research and teaching interests and continue their professional development. Several faculty members have applied for and were granted sabbatical leaves during this review period (2011-2016). Appendix 3.10 lists some of the sabbatical research activities reported by the faculty members. Teaching faculty members also are encouraged to spend time on professional development, as it is one of the review criteria for teaching faculty's annual evaluation and promotion.

Teaching Assignments

Teaching assignments are made by the department head with consideration of the needs of all the programs in the Department and individual faculty members. The assignments are usually made on an annual basis for each academic year. Whenever possible, faculty members are assigned to teach courses that are most directly related to their backgrounds, expertise, and research areas. Table 3.11 shows typical courses taught by each of the faculty. It clearly shows that faculty are assigned to teach specific courses related to their expertise.

Table 3.11 Faculty Teaching Assignments

Faculty Name	Typical Teaching Load	Area of Teaching and Research Expertise	Typical courses taught
Denise Agosto Professor (tenured)	6 (courses per academic year)	Information behavior, public libraries, social networks, gender, children, and teens	649, Library Programming 650, Public Library Service 682, Storytelling 683, Resources for Children
Yuan An	6	information integration,	532, Software Development

Associate Professor (Tenured)		knowledge representation, requirements engineering, healthcare information systems	108, Foundation of Software 330, Computer Network Technology 671, Web Systems & Architecture
Ellen Bass Professor & Department Head	2	Human-centered design, human-computer interaction, human factors,	608, Human-Computer Interaction 610, Analysis of Interactive systems
Chaomei Chen Professor (tenured)	6	Information visualization, visual analytics, knowledge domain visualization, network analysis and modeling, scientific discovery, science mapping, scientometrics.	633, Information Visualization 153, Applied Data Management 250, Information Visualization 200, System Analysis I
Catherine D. Collins Associate Teaching Professor	9	Knowledge management, collection development, management of information organizations, information sources and services	640, Managing Info. Organizations 661, Cataloging Special Materials 665, Collection Management 511, Info Resources & services, 521, Info Resources & services, II 660, Cataloging & Classification
Prudence Dalrymple Research and Teaching Professor	4	User-centered information behaviors, health informatics, evidence based practice, education for the information professions and evaluation	204, Nursing Informatics 648, Healthcare Informatics 896, Clinical Experience
Andrea Forte Associate Professor (tenured)	4	Social computing, human-computer interaction, computer-supported cooperative work, information literacy	215, Social Aspects of Info. Systems 310, Human Computer Interaction, II 611, Design of Interactive systems
Susan Gasson Associate Professor (tenured)	6	Human-centered design, social informatics, online learning communities, Grounded Theory	608, Human Computer Interaction 638, Software Project Management 646, Info. Systems Management 627, Requirement Engineering
Jane Greenberg Professor	3	Metadata, ontological engineering, data science, knowledge organization,	522, Info Access & Resources 622, Content representation 662, Metadata & Resource

(tenured)		information retrieval	Description
Weimao Ke Associate Professor (tenured)	6	Information retrieval, distributed systems, information visualization, network science, complex systems, machine learning, multi-agent systems	151, Web Systems & Services 152, Web Systems & Services, II 371, Data Mining & Machine Learning 624, Information Retrieval Systems
Xia Lin Professor (tenured)	6	Digital libraries, information visualization, knowledge mapping, information architecture	653, Digital Libraries 657, Digital Library Technologies 658, Information Architecture 654, Intro to Data Analytics
Michael Khoo Assistant Teaching Professor	9	Understandings and practices that users bring to their interactions with information systems, with a focus on the evaluation of digital libraries and educational technologies	101, Intro. to Info. Technology 102, Intro. to Info. Systems 215, social Aspects of Info. Systems 310, Human Computer Interactions, 608, Human Computer Interaction 610, Analysis of Interactive Systems
Linda Marion Teaching Professor	6	Formal and informal communication, bibliometric studies of scholarly communication, diffusion of information, information use in the social sciences, academic and public libraries.	105, Info Eval, Organization & Use 510, Info Resources & Services I 511, Info Resources & Services II 520, Social Context of Info. Professional 521, Information Users and Services 894, Practicum II,
Jung-ran Park Associate Professor (tenured)	6	Knowledge organization and representation, computer-mediated communication, cross-cultural communication, multilingual information access.	660, Cataloging & Classification 661, Cataloging & Classification II 662, Metadata & Resource Description 672, Resources in the Humanities 105, Introduction to Informatics
Alex Poole Assistant Professor (tenure-track)	3	Archives and records, digital curation, digital humanities, and diversity, inclusivity, and social justice.	560, Introduction to Archives I 750, Archival Access Systems
Lorraine	3	Archives, digital curation,	753, Digital Curation

Richards Assistant Professor (tenure-track)		electronic records management, information technology and digital collections, cloud computing and record keeping.	755, Electronic Records Management 756, Digital Preservation
Aleksandra Sarcevic Assistant Professor (tenure-track)	3	Computer-supported cooperative work, human-computer interaction, healthcare informatics; crisis informatics; social analysis of information.	105, Introduction to Informatics 310, Human-Computer Interaction II 616, Social & Collaborative Compute.
Deborah Turner Assistant Professor	3	Information behavior and interaction, management of information institutions, orality and information	522, Info Access & Resources 640, Managing Information Orgs 651, Academic Library Service
Kristene Unsworth Assistant Professor	3	Information policy, ethics, government information	216, Issues Info Policy 725, Information Policy 680, US Government Information
Erjia Yan Assistant Professor (tenure-track)	3	Network science, information analysis and retrieval, scholarly communication methods and applications	522, Info Access & Resources 622, Content Representation 633, Information Visualization
Valerie Ann Yonker Associate Teaching Professor	12	Human service information systems, systems analysis and design, measurement in software evaluation, knowledge engineering	515, Action Research and Statistics 530, Foundations of Info Systems 101, Introduction to Info Technology 105, Info Eval, Organization & Use 420, Software Project Management

Faculty Support

The College has kept a good team of supporting staff to provide important faculty and student support. The College's Research Operations and Faculty Support Group provides extensive research support from idea formation, to the identification of funding opportunities, to the actual submission of grant application, and the management of post-award activities. Significant staff support also is provided to major faculty committees, such as faculty search committees, tenure

and promotion committees, curriculum committees, and other ad hoc committees (such as the ALA Accreditation Committee).

III.8 *Procedures are established for systematic evaluation of all 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.*

Faculty Annual Evaluation

Faculty in the IS department are evaluated annually through the Drexel University Faculty Annual Report and Performance Plan (FARPP) process. The evaluation form is in Appendix 3.11. This annual review process provides a regular and systematic route for the assessment and improvement of full-time faculty in both the tenured/tenure-track and teaching categories. It is designed to track the faculty's accomplishment and innovation in the areas of teaching, research, and service. At the beginning of each new academic year, all faculty members complete the FARPP form to summarize their accomplishments in the previous year and provide specific plans and goals for the coming year. They then meet with their department heads individually to go over the form and discuss the achievements of the past year and goals for the next year in research, teaching, and service. FARPP results are the primary basis on which annual decisions about merit salary increases are made and figure into decisions about promotion.

Mid-Point Review

Tenure and promotion review have been discussed in Standard III.2. Related to it is the mid-point review required for each tenure-track faculty member during his or her third year of service in a tenure-track position. The purpose of the review is a formative and important assessment of the candidate's progress toward tenure. The mid-point review is typically an internal process. Many of the same sources of evidence are collected at the mid-point review except that external reviewers are not sought. A department committee of five tenured faculty will meet and discuss the candidate's tenure progress. The committee then develops a report that includes observations and a

recommendation on the candidate's tenure progress in the criteria areas of research, teaching, and service. This final report is sent to the department head. The department head distributes their letter and the department committee report to the candidate.

III.9 *The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of the faculty.*

The College's decision-making process is governed by its bylaws created when the new College was formed (Appendix 3.12). The bylaws define the roles of faculty in College governance. This bylaws also mandates the Department to have three standing committees: Curriculum Committee, Tenure & Promotion Committee, and Search Committee. All these committees, as well as other ad-hoc committees appointed by the dean or the department head, are required to keep minutes of their meetings and save the minutes and other relevant documents in a secure shared drive maintained by the College. Each committee can decide how the minutes and documents can be accessed by other faculty members in the department, whether they have no access, read-only access, full access, or time-limited access, etc. For some committees, the information must be confidential.

The committees' documents in the shared drive help to preserve the organizational memory for the College and the department. At the time of faculty evaluation, more data are assembled for each individual faculty member. For example, student course evaluation data can be downloaded from the academic information system — Academic Evaluation, Feedback, and Intervention System (AEFIS); previous faculty annual evaluation forms can be requested from another secured storage device; individual research proposals and funded project activities can be downloaded from COEUS at Drexel (a research management system supported by the Office of Research in the University); and every year, updated CVs and faculty research publications are directly requested from individual faculty members.

III.10 *The program demonstrates how the results of the evaluation of faculty are systematically used to improve the program and to plan for the future.*

The investment of administrative time and the dialogue created through the faculty evaluations process is significant. These dialogues are usually verbal, but many written responses have been noted over the years as well. The tenor of the dialogues ranges from positive to critical. When they are critical, they are always an uncomfortable situation for reviewer and reviewee. This discomfort is more than adequately rewarded given the impact on the individual's development and the collective impact these evaluations have on teaching, individual courses and ultimately the program. The preceding applies to tenured faculty, teaching faculty and particularly untenured faculty. Promotion in rank and teaching faculty are part of the same process of building a record based on annual evaluation. It is a time-consuming process for all, but is essential to quality improvement. As teaching evaluation is a major part of the faculty evaluation, both positive and critical faculty evaluation results are useful for program improvement. Positive tenure/promotion evaluation results help to strengthen teaching areas or techniques of the evaluated faculty. Critical results also give us an opportunity to review our curriculum for any gaps or for future direction of the program concerning research agenda and curriculum development.

Summary

The faculty of the IS Department is an interdisciplinary faculty with knowledge and training in many related domains. They publish research papers in major journals or conferences in their fields and receive substantial funding for their collaborative research projects. They have worked considerably to ensure quality and innovation in teaching and curriculum development. Overall, the College, and the IS Department; have nurtured an excellent intellectual and collaborative environment to allow all the faculty members to engage in active, scholarly, and educational activities.

CHAPTER 4: STUDENTS

Overview

The Department of Information Science (IS), the College of Computer & Informatics (CCI), and Drexel University all strive to educate a student body who will benefit from our rich educational programs and who will complete their degrees while being prepared to provide services and leadership in the ever-changing field of library and information science. The Master of Science in Library and Information Science (MSLIS) program is well-documented, with descriptions, policies, and procedures accessible to the public through a variety of media. Our recruitment efforts are informed by a commitment to a diverse student body in both on-campus and online environments. The overall enrollment of MSLIS students has decreased, consistent with the national trend, although the percentage of minority students has increased by 5%. Scholarships and other financial aid are used to attract excellent students. Our admissions policies and procedures ensure a high quality of students with potential to contribute to the field.

Response to the Standards

IV.1 *The program formulates recruitment, admission, retention, financial aid, career services, and other academic and administrative policies for students that are consistent with the program's mission and program goals and objectives. These policies include the needs and values of the constituencies served by the program. The program 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 program's mission and program goals and objectives.*

CCI's IS Department serves a diverse group of constituencies that include both students and employers. The student body is diverse, spanning from recent college graduates to mid-career or later career stage individuals who have pursued disciplines, or have been working in libraries, without professional credentials. The student population brings diverse work experiences and

backgrounds, including individuals who may have had more than one career experience. Most MSLIS students continue to be part-time, while maintaining fulltime work, although a substantial number of students each year are electing to be full-time. The current student body is largely composed of online students with a lesser number of face-to-face students. The MSLIS program, as part of the IS Department, unites in the goal of preparing "today's students for tomorrow's world." More precisely, the MSLIS program prepares students to work effectively with people, technology, and information to make a fundamental difference in tomorrow's knowledge society. The MSLIS program integrates these contexts through the curriculum, engagement in activities outside the class, such as student organizations and attending professional events, and through exposure to the field of library science. These activities help students understand the ways in which librarians and other information professionals support systems and services and use new and emerging technologies in the field.

Enrollment Overview

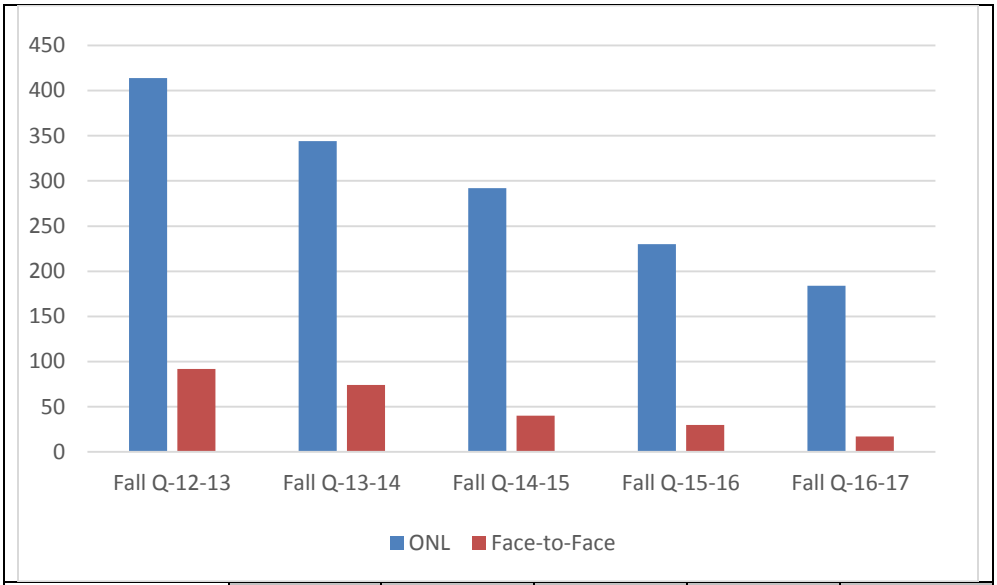
The student enrollment has decreased by close to 60% over the last five years reflecting the national trend. As part of our documentation, Figure/Table 4.1 shows the figures for online and face-to-face. While online enrollment is about half of what it was five years ago, the face-to-face enrollment is at 18% of what it was in 2012/13. Figure/Table 4.2, presents ratio data in full-time to part-time has remained fairly stable, with close to roughly 35-37% of students enrolled pursuing their degree full-time, and the other students pursing their degree part-time.

Although the change in student enrollment has been a concern for the faculty, the student populations remain a healthy size, and are one of the largest master's degree programs at Drexel University. Recently, there are also signs of stabilization in the decreased enrollment, if not a slight upward trend, due to increased applications. The enrollment trend and change in face-to-face to online, as noted in other places in this report, is a reflection of the MSLIS student populations, who are generally technically savvy, working students. Nearly all students attending full-time also work. As reported under recruitment, a number of efforts are underway to continue

to attract new students and increase outreach and dissemination of Drexel's unique status, as one of the only MSLIS ALA-accredited programs in a college of computing, with a strong online infrastructure.

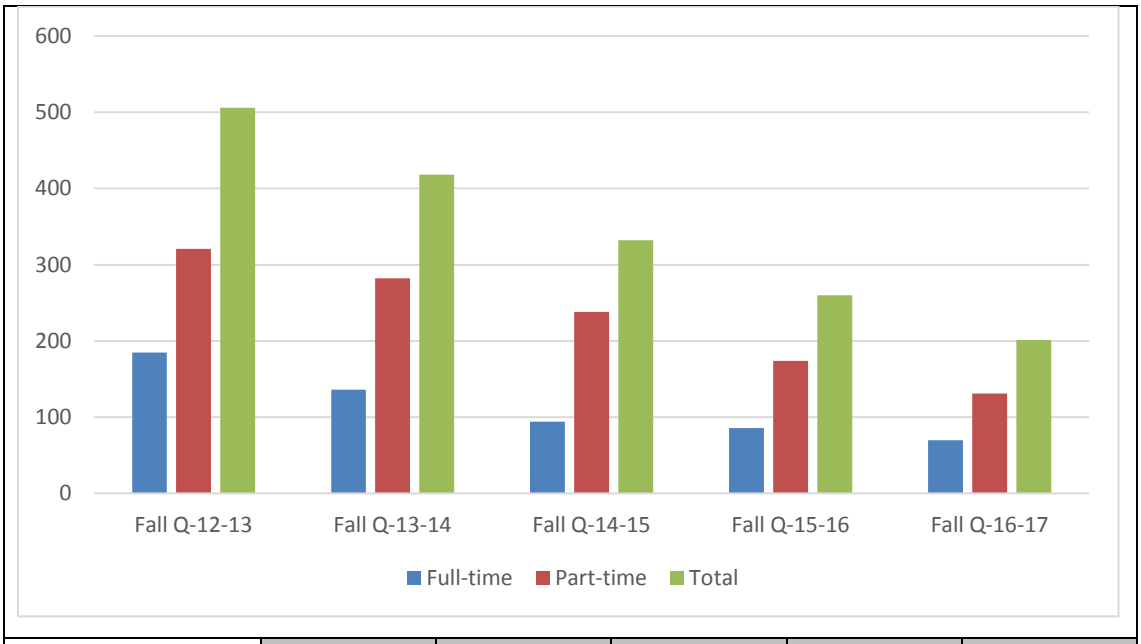
Figure/Table 4.1 MSLIS Enrollment Online and Face-to-Face AY (Academic Year) 2012/2013-AY 2016/2017

(Campus Census from Fall data collection period)



	Fall Quarter 12-13	**Fall Quarter 13-14**	**Fall Quarter 14-15**	**Fall Quarter 15-16**	**Fall Quarter 16-17**
ONL	414	344	292	230	184
Face-to-Face	92	74	40	30	17
Total	506	418	332	260	201

Figure/Table 4.2 MSLIS Enrollment Full-time and Part-time AY 2012/2013- AY 2016/2017
(Campus Census from Fall data collection period)



	Fall Quarter 12-13	**Fall Quarter 13-14**	**Fall Quarter 14-15**	**Fall Quarter 15-16**	**Fall Quarter 16-17**
Full-time	185	136	94	86	70
Part-time	321	282	238	174	131
Total	506	418	332	260	201

Students are the core of the College, and the IS Department works to meet the needs of today's diverse student body. Our goal is to cultivate a College-wide learning environment that meets the needs of students with a full spectrum of backgrounds and orientations. The IS Department faculty and professional staff, and other members of the Drexel University community, work to ensure that each student across all programs receives the attention and direction needed to accomplish individual educational goals.

Positive student experiences are central to the spirit of our College's day-to-day endeavors, and a driving force to prepare information professionals who can manage, lead, develop, implement,

and sustain optimal services across a wide spectrum of library and related information environments. Specific to students, we seek to educate individuals who can effectively contribute to the knowledge society in a range of capacities, from frontline workers to leaders and visionaries. To this end, the MSLIS program provides our students with high quality learning opportunities. The MSLIS program follows a valued recruitment and admission plan that assists students with exploring financial aid options, provides academic guidance, and follows University and College-level policies. The needs and interests of our students and of their future employers have influenced the development and implementation of the goals and objectives of the IS Department, including the MSLIS program.

Recruitment

The recruitment efforts of the MSLIS program balance the needs of both graduates and those who employ our students. Through research and experience, the recruitment program has been an increased focus to reach the maximum number and widest variety of potential students, and to provide a clear message of Drexel's program and the range of opportunities in the library profession.

The College carries out an active recruitment plan for the MSLIS program through 1) direct partnerships with regional and national library associations, 2) open house events (on-campus and online) and College visits, 3) outreach information materials (printed and online), 4) website resources, and 5) social media. Our approach for these is further explained below.

1) Direct partnership with regional and national library associations

CCI MSLIS faculty, alumni, and the director of recruitment, are present at many regional and national library association meetings. These meetings provide unique opportunities to meet with prospective students and recruit interested students. Students who have been admitted, or are interested in learning more about our program, are invited to stop by the Drexel table, meet faculty members or attend the Drexel receptions at these meetings. These meetings present an

opportunity for students to meet other, currently enrolled students — those pursing the degree online or both online and in person. These interactions provide a venue for face-to-face recruitment. In direct partnership with both regional and national associations (e.g., ALA, SLA, PALA, MDLA/DLA, VLA, MLA, etc.), the College offers members tuition discounts of up to 25% of the fee, as well as direct access to MSLIS and other sponsored college events and marketing. These discounts make the tuition more manageable, and help with our recruitment efforts, and with retaining current students.

2) Open house events (on-campus and online) and College visits

CCI hosts annual fall and spring MSLIS Graduate Open House events on-campus and online. This past year, CCI held three online MSLIS open houses. Participants included faculty, administrators, and prospective and current students. The open house events provide an opportunity to present the program's objectives, further engage prospective student interest and are informational for current students. The open house events include interactive sessions covering the MSLIS academic program, admission requirements, financial aid, student services, student life, and alumni services. As part of the on-campus open house, current and former student volunteers discuss MSLIS curricula and provide insight into program aspects that helped prepare them for past or current jobs after graduation. The College maintains a website with open house information at **http://drexel.edu/cci/admissions/open-houses/**, where online sessions are archived, and accessible to any of the attendees, or anyone who requests access. The College also welcomes all prospective students, alumni, and friends to tour the facilities at any time of the year. The CCI website provides an open invitation for in-person visits at any of the College locations: http://drexel.edu/cci/admissions/graduate-professional-development/visiting-cci/. Visits are often connected with the on-site open house events.

3) Outreach informational materials

Materials relevant to the College's graduate programs are provided to prospective students. These materials are distributed through direct mailings, trade shows, request for

information and recruitment-related events. They are made available as hard copies and distributed in a packet; the factsheet information for the degree programs also is accessible on CCI's website. The primary collection of outreach materials includes degree information (fact sheets) and informational reports listed in Table 4.3.

Table 4.3. Outreach Informational Material

Degree information (fact sheet)	Informational reports
▪ CCI Graduate Studies Fact Sheet (attached in Appendix 4.1)	▪ *U.S.News & World Report* Rankings
▪ MS Library and Information Science Fact Sheet	▪ Funding Your Graduate Education
▪ MS Information Systems Fact Sheet	▪ Join the Hottest Job Markets
▪ MS Software Engineering Fact Sheet	▪ By the Numbers: How a Master of Science in Information Systems Works for You
▪ MS Computer Science Fact Sheet	
▪ MS Health Informatics Fact Sheet	▪ Mentoring Programs/Graduate Peer Mentors
▪ MS Dual Degree Program Fact Sheet	

4) Website resources

The College website is a major information source for MSLIS students, providing links to University, College-wide, and MSLIS program information. Three key website landing pages include:

- **MSLIS website, http://drexel.edu/cci/academics/programs/graduate-programs/ms-in-library-and-information-science/**, provides access to the graduate catalog, MSLIS course requirements and descriptions, a sample plan of study, and the master schedule for each term. This site also highlights program features as well as current student and alumni.
- **College-level website, http://drexel.edu/cci/**, presents the dean's welcome, covering an overview the College, its University context, and the larger field of information. The College website provides access to information on CCI's academic programs and departments, admission processes and requirements, College-wide research activities, news and events,

and alumni networking. The site also links to resources for prospective and current students, and lists contact information for faculty and professional staff, including advising and admissions staff. A contact form is accessible to anyone seeking more information.

- **University/Student life, http://drexel.edu/studentlife/**, provides access to provost/academic calendars as well as the following Drexel-specific sites: Alumni Relations, Drexel Athletics, Drexel Central Recreational Athletics, and the Steinbright Career Development Center. Additional links connect to the Counseling and Student Health Centers, Drexel Family Association, Student Handbook and Code of Conduct, Student Organizations, LGBTQA Student Center, Off-Campus Housing, and International Student Employment.

5) Social media

The College follows University Policy (http://drexel.edu/ucomm/about/policies/social-media/) to ensure responsible use of social media for business purposes. The College uses Facebook, Twitter, Instagram, LinkedIn, and YouTube (@DrexelCCI) to promote the MSLIS program and share news of events, awards, and other recognitions. These media outlets are successful in reaching and engaging current and prospective students, as well as graduates and faculty. For measure, CCI's Twitter account has close to 2,000 followers, and a majority of posts that are related to the MSLIS community elicit a 'like' or 'retweet' from current students, which shows active engagement. This February, Christopher (Chris) Spangler, joined CCI as the Executive Director of Strategic Partnerships and Communications; and this month, Faith Kellermeyer, also joined CCI as the Social Media and Digital Marketing Coordinator. Under Chris' leadership, CCI is developing a CCI content strategy that will project a unified College message across Facebook, Twitter, and other social media while highlighting individual success and programs, such as the MSLIS. CCI's communications plan will be placing a specific emphasis generating dynamic content sharing more about the student experience and achievements of students and alumni, as well as other members of the CCI community. Blackboard Learn also is used as a platform to communicate College events, internship opportunities, and community needs to students. Students are required to log in to Blackboard for course materials, for both online

classes and those that are on campus. Blackboard is generally viewed as a successful source for reaching students given the active follow-up from posts sharing important news items, such as registration deadlines.

Financial Aid

The full, published tuition cost of the master's degree programs is slightly more than $50,000 for a full- time student pursuing the 45-credit degree program ($1,228 per credit for AY 2016/17). Most students qualify for a 25% discount through a membership with one of the direct partners (regional and national associations, such as ALA, SLA, PALA, MDLA/DLA, VLA, MLA, etc.). Student membership in a direct partner association can result in an adjusted total tuition of less than $40,000. This tuition still places Drexel's MSLIS program among one of the more expensive accredited ALA program schools in the country, which can present a recruitment problem. This challenge is offset, to some degree, by student desire to pursue an MSLIS degree at Drexel, given its known program strengths, the flexibility of an online program, and additional options for financial assistance.

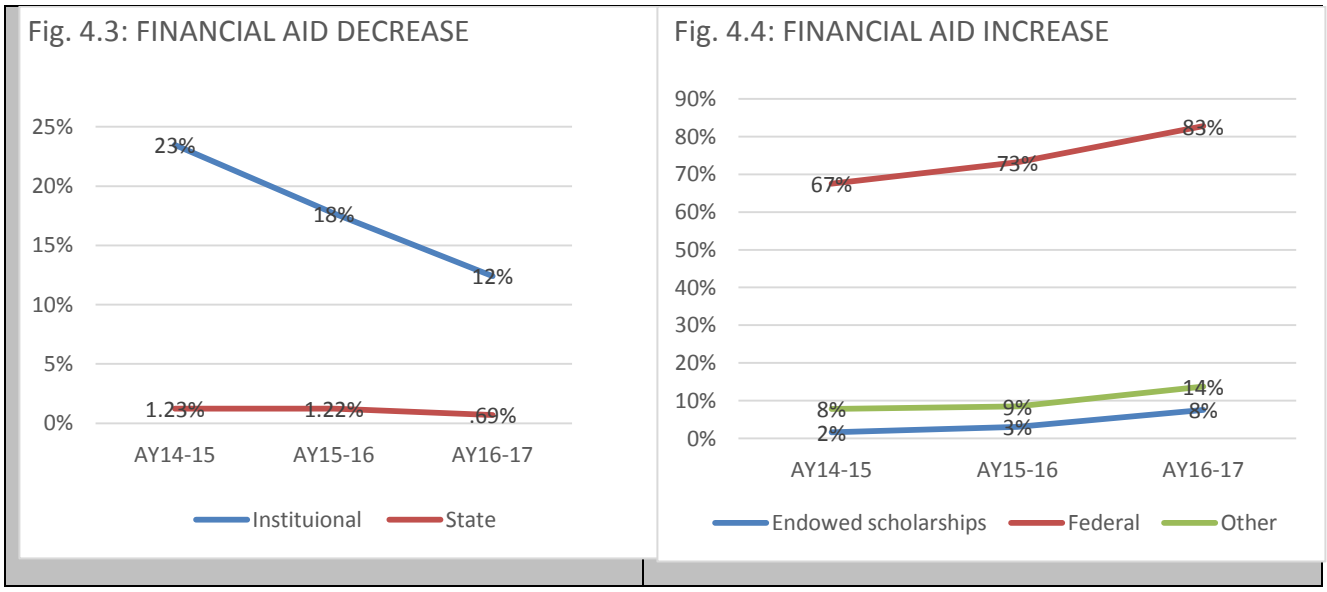
The College promotes a full range financial assistance through the web at **http://drexel.edu/cci/admissions/graduate-professional-development/admissions-information-and-requirements/graduate-funding/**, and links students to University resources at **http://drexel.edu/drexelcentral/finaid/overview**. Students requiring financial aid are required to complete a FAFSA (Free Application for Federal Student Aid) and have it released to the University. Students also complete the Institutional Financial Aid Application. These forms are made accessible to students via Drexel Central's Financial Aid website. Among the range of financial aid opportunities for MSLIS are fellowships, partner discounts, scholarships, loans, GI Bill for veterans, Yellow Ribbon match program, student work options, and the University's Tuition Remission Program. Table 4.4 reports the percentage of MSLIS students receiving financial aid over the last three academic years. Figures 4.3 and 4.4 below show the areas in which there have been a decrease and increase in financial aid.

Table 4.4 Percentage of MSLIS Students Receiving Selected Financial Aid

Type of Aid	AY (Academic Year)		
	AY 2014-2015	AY 2015-2016	AY 2016-2017
Institutional (Drexel)	23.46%	17.69%	12.41%
Endowed scholarships	1.65%	3.05%	7.59%
State	1.23%	1.22%	0.69%
Federal	67.49%	73.17%	82.76%
Other	7.82%	8.54%	13.79%

Institutional and state support have decreased over the last three academic years, due, chiefly, to budget constraints. Financial aid, however, has increased through endowed scholarships, federal aid, and options recorded in the Other category, which includes both tuition remission and partner programs with organizations such as ALA, etc., thus allowing Drexel to offer a 25% discount.

Figures 4.3-4.4 Financial Aid Increase and Decrease: AY 2014-2015 through AY 2016-2017



CCI continues to partner with Institutional Advancement to increase scholarship opportunities. Scholarships are competitive, and students with high grade point averages, outstanding recommendations, well-written essays, and high combined Graduate Record Examination (GRE) verbal and math scores are selected for consideration. An ongoing, notable College innovation is the part-time Dean's Fellowship, implemented under Dean Fenske, for part-time students, online and face-to-face, to enable more equal access to financial aid. Initially, the Dean's Fellowship was restricted to the full-time students, as is often the case with scholarships. CCI's leadership in this area presents a successful model for providing part-time students both financial incentive and recognition.

The assignment of scholarships is chaired by the Director of Recruitment, working with a team of academic advisors and financial offers. The number of applicants ranked on the scholarship list is always greater than the number of awards that the College has to offer. Some of the scholarships may not be combined with other incentives, following University policy, and this information is clearly in University and College documentation. The reason for some restrictions on the combination of discounts adheres to a University policy not to grant a discount greater than 25%.

For 2015/16, scholarships totaling $53,250 were allocated to 25 MSLIS students, as reported in Table 4.5. For AY 2016/17, scholarships totaling $44,718.40 have been confirmed for 12 MSLIS students, as reported in Table 4.6. The decrease in scholarship allocation to MSLIS students is due, in part, to the noted enrollment decline and priority funding allocation required for LS/focused doctoral students.

Table 4.5 Scholarship Aid for MSLIS Students AY 2015-2016

Scholarship Name	Amount Awarded:
MacPherson, Harriett D.	$500.00
Snyder, Grace Rich IST Scholarship	$500.00
Snyder, Grace Rich IST Scholarship	$500.00
Marie Hamilton Law ScholarshipFund	$1,000.00
Marie Hamilton Law ScholarshipFund	$1,000.00
Marie Hamilton Law ScholarshipFund	$1,000.00
Evelyn W Armstrong Endow Fund	$2,500.00
Evelyn W Armstrong Endow Fund	$2,500.00
Evelyn W Armstrong Endow Fund	$2,500.00
Margaret Crowl Endowed Scholarship	$2,500.00
Margaret Crowl Endowed Scholarship	$2,500.00
Margaret Crowl Endowed Scholarship	$2,500.00
Doris Hosler Endowed Fellowship	$2,500.00
Doris Hosler Endowed Fellowship	$2,500.00
Doris Hosler Endowed Fellowship	$2,500.00
Doris Hosler Endowed Fellowship	$2,500.00
Nelson, Ione A Scholarship	$13,750.00
Shears, Bettina Scholarship	$3,000.00
Judith Feller Endowed Scholarship Fund	$1,000.00
Huggins Endowed Scholarships	$1,000.00
Huggins Endowed Scholarships	$1,000.00
Margaret Kateley Rondeau Fellowship	$1,000.00
Margaret Kateley Rondeau Fellowship	$1,000.00
Nash Scholarship Fund	$1,000.00
Nash Scholarship Fund	$1,000.00
Total	$53,250.00

Table 4.6 Scholarship Aid for MSLIS Students AY 2016-2017

Scholarship Name	No. of awards	Full amount given
Marie Hamilton Law Schlp Fund	1	$3,500.00
Nash Scholarship Fund	1	$1,000.00
Nelson, Ione A Scholarship	7	$23,044.80

Shears, Bettina Schlp	1	$3,500.00
Phoebe Haas	1	$5,721.60
Grace Palmer Burrell Scholarship	1	$7,952.00
Total	12	$44,718.40

Appendix 4.2 lists the full range of scholarships for the College of Computing & Informatics.

This June, Chris Spangler, Executive Director of Strategic Partnerships and Communications, in coordination with Dean Yi Deng, launched CCI's Corporate Partners Program. More events are planned for the coming academic year, and will include outreach to LIS and publishing industry members. This initiative is focused on increasing enrollment and strengthening the CCI brand. It also will help CCI tell its story more clearly, and thus aid the University's Office of Institutional Advancement to raise money for scholarships, etc.

Funding options for MSLIS students also is offered through grants and other faculty research funds. Drexel's LIS tenure-track faculty have a successful record of procuring grants and funding to support graduate students. Drexel LIS faculty's success rate continues to be on the same level as other LIS programs, and nearly all grants submitted to the IMLS (Institute of Museum and Library Services) NSF (National Science Foundation), and NIH (National Institutes of Health) include some form of support for CCI graduate students and tuition awards when the budget can accommodate this support.

Recruitment of Minority Students

The University's institutional support for minority students has a long history of increasing the numbers of under-represented minorities, particularly at the undergraduate level. The original library science program was created by the then Drexel Institute in 1892, one year after the founding of the University. The focus then was on women, with only one male in the entering class. Since 1969, the MSLIS program and the larger college of residence (previously IST, and now CCI), has invested resources to support programs for African-American, Hispanic, and

disadvantaged students. Services originally developed for support of undergraduates have been extended to the graduate student level and connects students with University resources and services, such as Student Services, Counseling Health and Wellness, and the Writing Center to help students improve their written communication skills.

The majority of MSLIS students currently enrolled are female, and attend part-time (see Table 4.7). Table 4.8 reports the total headcount of ALA master's degree students enrolled from 2010-15, including degrees awarded, minority enrollment, and the percentage of minority students compared to the total headcount of ALA master's degree students. Although the overall enrollment of MSLIS students has decreased, which is consistent with the national trend, the percentage of minority students has increased by five percent.

Table 4.7 MSLIS Students 2016-2017

Program option	Male	Female	Total	%
Fulltime	10	53	63	24.2%
Part-time	31	166	197	75.8

Table 4.8 Minority Enrollment 2010-2015

Report Year	Total ALA (headcount) Masters Students	ALA Masters Degrees Awarded	ALA Minority Enrollment	% Total hc/Min. enrl.
2010	682	243	72	11%
2011	623	249	76	12%
2012	535	282	58	11%
2013	418	234	44	11%
2014 ALISE	332	207	50	15%
2015 ALISE	260	150	41	16%

Table 4.9 and Table 4.10 report more detailed results on Drexel's MSLIS student population by gender, ethnicity, and race. Table 4.9 reports the number of degrees awarded at the close of the AY 2014-15, and includes more detailed data; and Table 4.10 reports the number of students

enrolled, and includes more detailed data. Figures 4.5 shows the percentages of Drexel MSLIS minority and non-minority students awarded ALA accredited master's degrees in AY 2014-15, and Figure 4.6 shows the continued projection, with a 5% increase in enrollment of minority students compared to non-minority students for future graduates.

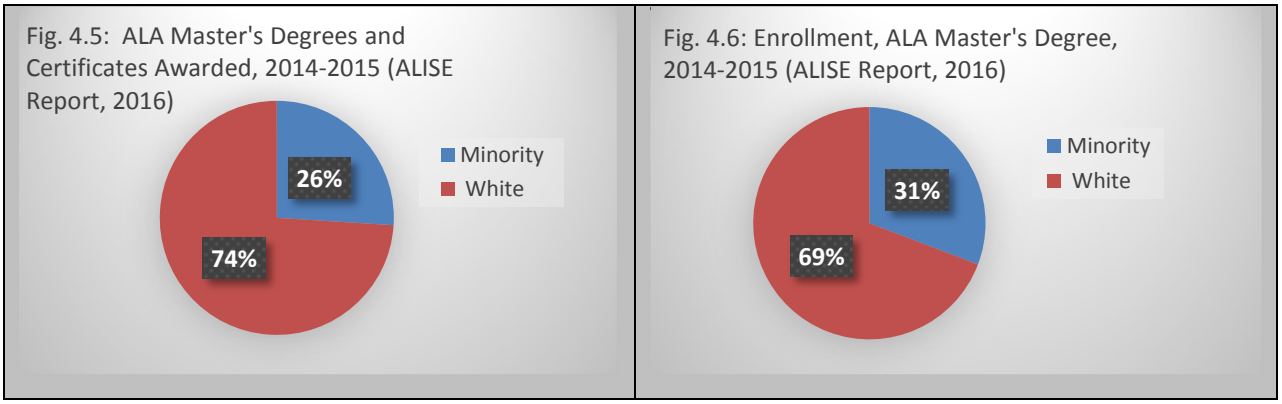
Table 4.9 Degrees and Certificates Awarded by Gender, Ethnicity, and Race, Master's – ALA-Accredited, 2014-2015 (ALISE Report, 2016)

School	Gender	Hispanic	American Indian, Alaskan Native	Asian	Black or African American	Native Hawaiian or Pacific	White	Two or More Races	International	Race or Ethnicity Unknown	Total
Drexel	Female	6		2	7		86	5	3	7	116
	Male	1			1		25	1	1	5	34
	Sub-total	7		2	8		111	6	4	12	150

Table 4.10 Enrollment (Number) by Gender, Ethnicity, and Race, Master's – ALA-Accredited, Fall 2015 (ALISE Report, 2016)

School	Gender	Hispanic	American Indian, Alaskan Native	Asian	Black or African	Native Hawaiian or Pacific	White	Two or More Races	International	Race or Ethnicity	Total
Drexel	Female	9		6	12		149	12	4	27	219
	Male	2					31		1	7	41
	Sub-total	11		6	12		180	12	5	34	260

Figure 4.5-4.6 Percentage of Minority and Mon-minority students Awarded ALA Master's Degrees and Certificates, and Enrollment for AY 2014-2015



IV.2 *Current, accurate, and easily accessible information about the program is available to students and the general public. This information includes documentation of progress toward achievement 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 program demonstrates that it has procedures to support these policies.*

The College website is a main information artery for current and prospective students (http://drexel.edu/cci/)The website provides access to information on CCI's academic programs and departments, admission processes and requirements, College-wide research activities, news and events, and alumni networking. This College website also links to the University's A-Z index, Directories, Directions & Maps, and Emergency Information. The facilities page, **http://drexel.edu/cci/about/our-facilities/**, further provides links to the campus map, so that students and visitors may easily navigate the physical campus, find classrooms, meeting places, lecture events, and other buildings and resources.

The faculty page, **http://drexel.edu/cci/contact/Faculty/**, serves as a landing page for linking to individual College faculty pages. These individual pages provide faculty contact information, and highlight current and key publications, association participation, and other leadership activities. More than half the faculty maintain detailed websites, linking out from the individual faculty pages. These detailed websites are also part of the College's official domain, and often include summaries about their teaching and research interests and current funded research projects, access to course syllabi and other instructive information, pictures of recent events, and links to more publications.

MSLIS Program Documentation

The MSLIS Program webpage is at: **http://drexel.edu/cci/academics/programs/graduate-programs/ms-in-library-and-information-science/**. This page provides access to the Graduate Catalog, MSLIS course requirements and descriptions, a sample plan of study, and the master schedule for each term. This site also highlights program features as well as current student and alumni. In addition to the website, the MSLIS fact sheet (available in print and online), weekly online student newsletter, and program slide deck are used to disseminate information about the program.

MSLIS Program Learning Objectives

The MSLIS program goals are part the academic program description, and have been refined and articulated as part of CCI's "MSLIS Program Learning Objectives and Curriculum Reform" activity.

Graduates of the MSLIS program are prepared to assume leadership positions in designing, executing, and evaluating information services and products and in managing organizations that facilitate access to recorded knowledge.

Their preparation enables them to gain the knowledge and abilities required to:

- Explain the foundational principles, professional ethics and values, and social and technological contexts within which various information professionals work.
- Identify and analyze the information needs of various communities (e.g., academic institutions, local neighborhoods, workplaces, schools) and design and implement library/information programs and services to meet those needs.
- Analyze and apply information policies and information-related laws (including the standards and guidelines of pertinent professional organizations) that advance the creative and ethical applications of information technologies and the delivery of information resources throughout society.
- Foster the core values of the profession (e.g., access, equity, intellectual freedom, privacy, social justice) in all programs and services offered in these communities.
- Encourage the development of information literacy in support of all areas of individuals' and communities' needs (e.g., in formal and informal education, career development, health care and financial planning, research innovation, political and social engagement, etc.).
- Lead and manage information agencies, projects, and people through creative and effective approaches to planning, budgeting, policy making, fundraising, communication, and advocacy.
- Use research and data in sophisticated ways to demonstrate the value of the library and to help individuals and communities address community challenges (e.g., poverty and hunger, population shifts, economic development, preservation of cultural heritage, etc.).
- Help individuals and communities to understand, appraise, organize, manage, and preserve digital assets available through a variety of formal and informal sources and to create and manage their own digital identities and materials effectively.

The College has been engaged in an assessment of the MSLIS program, including regular evaluation of student learning and achievements. The assessment activity and results are made accessible on the web at: http://drexel.edu/cci/academics/programs/graduate-programs/ms-in-library-and-information-science/program-assessment. Tables presenting core course objectives

mapped to MSLIS program learning objectives with students' ratings from winter 2014 through summer 2015, and winter 2015 through summer 2016, are accessible as well. These assessments include student rankings at an average of 8.7 (on a 10-point scale), with faculty meeting learning objectives connected to larger program objectives.

Degree Requirements

The standard requirement for the MSLIS degree is 45 quarter credits. This requirement can be met in five quarters of full-time study, although part-time study and a completion of the degree averaging two to two and a half years is typical. The time limit set by the University for completion of any degree is five years, although the College of Computing & Informatics strongly recommends that part-time students complete the master's degree in no more than four years for a meaningful and cohesive educational experience.

Transfer credit may be accepted for appropriate graduate-level courses from other ALA accredited institutions of higher learning. Up to three courses can be transferred for the MSLIS degree program. A student requesting transfer credit for a course must have earned the grade of B or higher, and the course completion date must not be more than five years from the time of the transfer request. Approval of transfer credit is at the discretion of the IS department head. Previously, MSLIS students who had acquired professional competencies through substantial work experience may have qualified for the Credit for Work Experience (CWE), resulting in reduction in degree requirements to a minimum of 36 credits. CWE credit required that the training and experience was high quality and provided reasonable preparation for the field of the student's planned concentration. (Note that CWE was discontinued in fall 2016.)

Admissions Requirements

The College website and other supporting documentation in the application clearly detail admissions requirements. Table 4.11 summarizes the information found on the MSLIS websites supporting documenting admissions requirements.

Table 4.11 MSLIS Admissions Requirements

• Drexel's Graduate Catalog: **http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/**.
• Course requirements: **http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/#degreerequirementstext**.
• A sample plan of study: **http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/#sampleplanofstudytext**.
• Course descriptions: **http://catalog.drexel.edu/graduate/collegeofcomputingandinformatics/libraryandinformationscience/#courseinventory**.
• Drexel's Term Master Schedule, to find out when courses are offered: (**https://duapp2.drexel.edu/webtms_du/app**.
• Application-Graduate Admissions page: **http://drexel.edu/cci/admissions/graduate-professional-development/**.

These requirements and the procedures specific to the MSLIS are further reviewed below in response to IV.3

Financial Aid

Access to financial aid resources are made available on the Financial Aid resource website. This page, and the relevant resources are summarized here in Table 4.12.

Table 4.12 Financial Aid Resources

Financial Aid resource page: http://drexel.edu/cci/admissions/graduate-professional-development/admissions-information-and-requirements/graduate-funding/
▪ The Drexel Dean's Fellowship: **http://drexel.edu/drexelcentral/finaid/grants/graduate-scholarships/**
▪ Grants and scholarships: **http://drexel.edu/drexelcentral/finaid/grants/**
▪ Partner Organization Discount: **https://online.drexel.edu/partnerships/current.aspx**
▪ CCI Scholarships: **http://drexel.edu/cci/resources/current-students/scholarships/**
▪ Student Loans: **https://fafsa.ed.gov/**
▪ GI Bill for Veterans: **http://drexel.edu/drexelcentral/finaid/financing/veterans/**
▪ Yellow Ribbon Program (free and unlimited and unlimited number of military veterans across: **http://benefits.va.gov/gibill/**, and **http://drexel.edu/drexelcentral/finaid/financing/veterans/yellow-ribbon-program/**
▪ Drexel Jobs: **https://www.drexeljobs.com/applicants/jsp/shared/frameset/Frameset.jsp?time=1495420501313**
▪ Tuition remission: **http://drexel.edu/hr/career/tuition/**

The Financial Aid resource page further informs students that businesses and professional industry organizations offer various scholarships and awards, and they can consult other resources, including the library for assistance. The College weekly student newsletter regularly posts work experience opportunities, as well as calls for relevant awards and scholarships. The response to IV.1 (above) and Appendix 4.2 provide additional information on scholarships and aid.

Criteria for Evaluating Student Performance

Student performance evaluation is tied, primarily, to the classes in which they are enrolled. The faculty prepares assignment evaluation and class participation and assignment rubrics that are

shared with students in conjunction with the overall class description, as well as individual assignments. Evaluation rubrics are developed for both required and elective courses, and are made accessible to students. The rubrics are shared among faculty for classes that have multiple instructors. Individual faculty may make modifications, although the shared rubrics remain consistent with offerings of the same class by different faculty members. More information on the rubrics is provided below, in *IV*.4, under the heading "Evaluation." The final grade for a completed class serves as an overall performance indicator. Course grades follow the Provost Grade Policy (http://drexel.edu/provost/policies/grades/) including the policy statement and grade scale, as presented in Table 4.14.

Table 4.13 Provost Grade Scale

Grade	Points
A+	4
A	4
A-	3.67
B+	3.33
B	3
B-	2.67
C+	2.33
C	2
C-	1.67
D+	1.33
D	1
F	0
AU	0
INC	0
W	0
CR	0
NCR	0

Assistance with Placement and Services

The department does not have an official placement service, although the electives INFO 893: Practicum I and INFO 894: Practicum II give students with limited practical work experience guided field-work, which can assist with professional placement. Data on these offerings is presented in Chapter 2, Curriculum. The Steinbright Career Development Center, http://drexel.edu/scdc**,** provides career services to MSLIS students and other members of the University community. Dragon Jobs, **http://drexel.edu/scdc/career-services/searching-for-job/dragon-jobs/,** is a dynamic job board that receives posts almost daily, covering a range of full-time and part-time positions. Dragon Jobs is accessible to the full student body and alumni. The University also sponsors a range of career events, **http://drexel.edu/scdc/calendars-events/events**, to aid students with placements including mock interviews, topical sessions on interview strategies and tips, and resume preparation. These options provide a rich set of resources to aid with career placement, and are further supported by services and policies reviewed in this section.

MSLIS students have access to the full range of student services provided by the University. Guidance and counseling is provided by the Drexel Counseling Center. The Center maintains a staff of specialized counselors who can respond to both emergency and nonemergency needs. The Office of Equality and Diversity provides access to disability resources to meet the needs of students, faculty, and professional staff with disabilities. Disability specialists are available to work closely with students to assess their individual needs and link them with the services necessary to ensure them the opportunity to participate fully in college life.

Policy Resources

The Graduate Student Handbook, available online, http://drexel.edu/graduatecollege/forms-policies/graduate-handbook/, provides students with access to a list of policies, procedures and guidelines covering essential topics. Table 4.14 provides a list of these policies, and Appendix 4.3 shows the entry point for this resource, via the Graduate Student Handbook. Additionally, the

Office of the Provost provides online access the academic policies, http://drexel.edu/provost/policies/overview/. Many of these academic policies are relevant to MSLIS students.

Table 4.14: Graduate College: Policies, Procedures and Guidelines

Academic Standing Policy
Adding/Dropping/Withdrawing from a Course
Advisor and Plan of Study
Change in Matriculation and Program Status
Classification of Students
Course Repeat
Doctoral Tuition Policy Guidelines
Enrollment Status
Grades
Graduate Minors
Graduation Application
Graduation Requirements
Leave of Absence
Readmission to the University
Retroactive Changes to Course Registration Records
Statute of Limitation
Time for Completion
Transfer Credit
Withdrawal from the University

Print and online publications and public information sessions are also used to disseminate information on policies.

IV.3 *Standards for admission are applied consistently. Students admitted to the 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 the program, the program's goals and objectives, and the career objectives of the individual. Within the*

framework of institutional policy and programs, the admission policy for the program ensures that applicants possess sufficient interest, aptitude, and qualifications to enable successful completion of the program and subsequent contribution to the field.

The procedures for admission have been formulated to ensure that policies are applied consistently. Admission requirements are made known to applicants through publication in the *Drexel University Catalog*: **http://www.drexel.edu/provost/catalog/**, brochures and information pieces distributed by the College, information provided at open houses as well as by personal interviews and correspondence. The admission standards are applied carefully and uniformly to all applications that are received by the College.

Applicants who do not meet the minimum requirements yet provide evidence of potential ability to contribute to the profession and to succeed in graduate study may have some requirements waived and admission granted with provisional status. Evidence to support the waiving of the standards is taken from Graduate Record Examination (GRE) scores, letters from applicants, professional experience, letters of recommendation, or an interview.

Since the last study, until AY 2016/17, students have had the option to select a concentration when applying for the program. Over the last two years, however, the University has been moving away from concentrations. The change was motivated largely by the MSLIS curriculum revision to better prepare our students for LIS careers. As reported in Chapter 2, the new MSLIS degree program is designed around three major areas: 1) Digital Technology Services, 2) Information and Data Services, and 3) User and Community Services. The pathways allow for students to pursue a full range of information-related careers in these areas (see also: Appendix 2.22). The pathways ensure that students are able to enroll the courses they need and improve course selection guidance. The change from concentrations also offers greater flexibility in professional preparation, as students can complete more than one pathway, leading to greater opportunity in entering the professional workplace. The change to pathways also aligns with the

University policy, whereby concentrations have been assessed as too narrow in scope and a hindrance to advancing curriculum. Drexel is committed to fulfilling the course options for current students who have selected concentrations, but is now moving toward a pathways model that better suits the student population.

Admission Requirements

Normally, applicants must have a cumulative average of 3.0 for any subsequent graduate work in order to be considered for admission. Applications also must be supported by Graduate Record Exam (GRE) scores if the cumulative grade point average (GPA) average is below a 3.2; the graduate application; official transcripts from all previous colleges and universities; essay/statement of purpose; and a current resume and recommendations from persons able to appraise the student's aptitude for graduate study and his or her ability to contribute to the profession. Master's applicants will be automatically reviewed for a GRE waiver at the College's discretion based on a previous degree GPA. Generally, the threshold needed to receive a waiver is an overall 3.2 cumulative GPA.

For an applicant, whose bachelor's degree is from a non-U.S. institution, official Test of English as a Foreign Language (TOEFL) scores also are required. Students must obtain a 600 on the written exam, 250 on the computer-based test or a 100 on the Internet-based exam. (The score of 100 was recently changed to 90). The IELTS (International English Language Testing System) exam also is accepted with a score of 6.5 or higher. An I-20 form and accompanying bank documents are required for international applicants. WES (World Education Service) Course-by-Course Evaluation of foreign transcripts/degrees may be required for international applicants. Applicants who do not meet the minimum requirements yet provide evidence of potential ability to contribute to the profession and to succeed in graduate study, may have some requirements waived and admission granted with provisional status. Evidence to support the waiving of the standards is taken from the GRE scores, letters from applicants, professional experience, letters of recommendation or an interview.

Procedures

The procedures for admissions and the award of financial aid follow. They have been formulated to ensure that policies are applied consistently across the various academic units involved in the solicitation, completion, decision, and communication of admission applications and scholarship applications.

Admission standards are made known to applicants by publication in the *Drexel University Catalog*, which can be found online at **http://www.drexel.edu/provost/catalog/**, brochures and information pieces created and distributed by the College, as well as by personal interviews and correspondence. These standards are applied carefully and uniformly to all applications that are received by the College. No students are admitted in any category without the approval of Director of Recruitment Matthew Lechtenberg, who is delegated this responsibility by the dean.

Standard Admissions

The applicant submits all required documentation (i.e., application form, transcripts, test scores, recommendations) through the University's application portal. The University is the recipient of application recommendations, invited by the applicant, as well as standardized test scores. The College has access to them and makes them available in the admissions process for review as official documents. Academic partners involved in application completions (Enrollment Management, DUO and CCI) monitor the receipt of the documentation and inform the applicant when any of it has not been received through the Discover Drexel Portal, an à la carte database serving applicants. Enrollment Management computes the grade point average. When all necessary documentation has been received, the application is reviewed by Enrollment Management and the CCI recruiting team who recommend admission or denial. The dean may override a decision.

Face to face: All admission processes and material receipts begin with Drexel's Enrollment Management and ends at the College. The College handles admission decisions in conjunction with Enrollment Management.

Online, Drexel University Online (DUO): All DUO online application completion processing begins and ends with DUO. GRE waivers and admission decisions and handling of new students occurs at the College, in conjunction with Enrollment Management as described above.

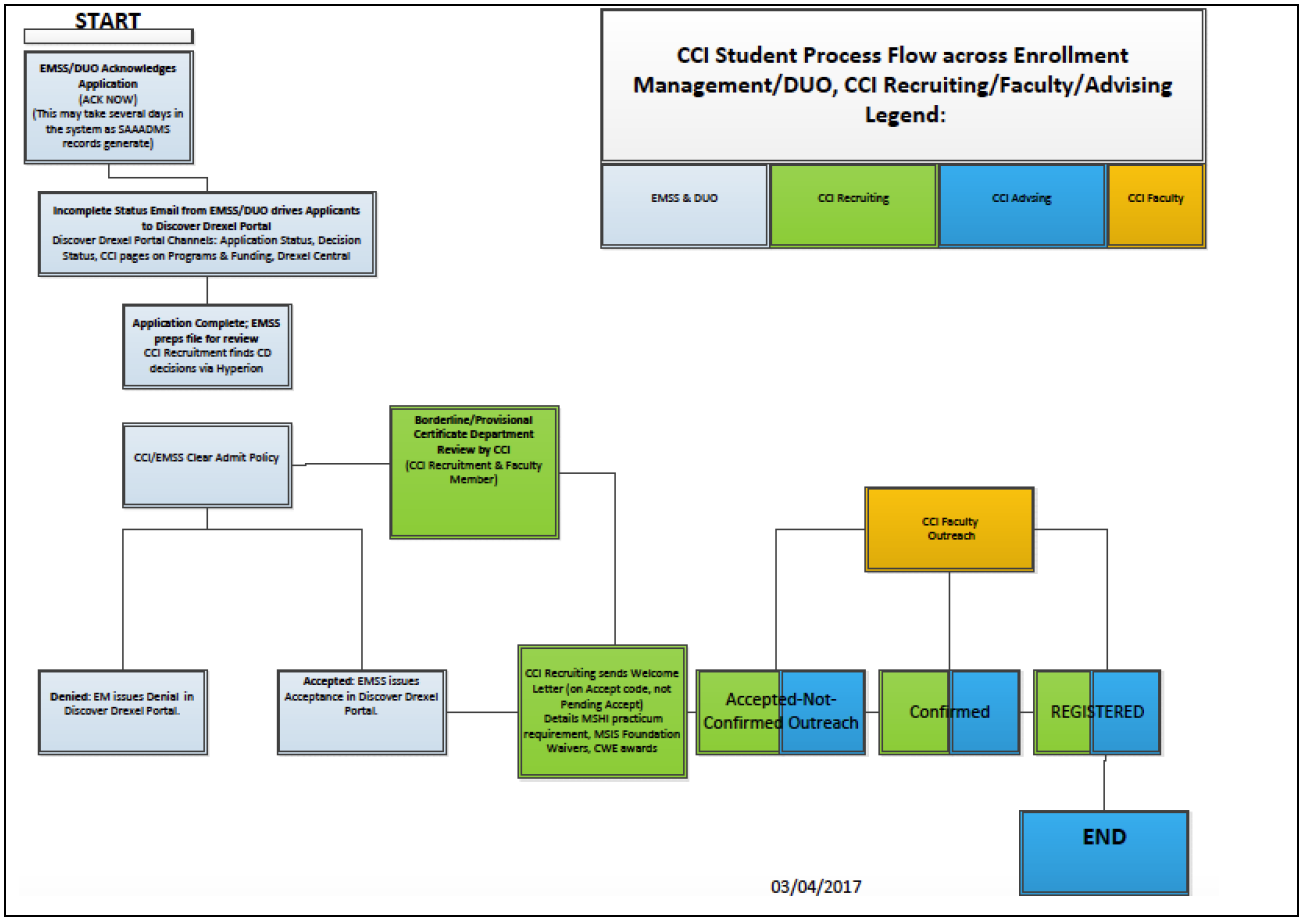
Over the last two and a half years, Matthew Lechtenberg and his team have been working on a "Clear Admit & Deny Policy," mapping out and codifying review decisions. This new policy was recently implemented in coordination with Enrollment Management, effective fall 2017. This policy allows Enrollment Management to accept students meeting previously described criteria if their applications have a GPA of 3.2 or above, and quality supporting materials. All applications below a 3.2 are reviewed directly by the CCI recruiting team.

Protocol for the Clear Admit & Deny Policy is as follows:

1. Clear Deny: *Either* GPA below 2.7, all three sections of required GRE below 50%, TOEFL below 85/IELTS below 6, or GRE below 50% in all three sections.
2. Live for EMSS (Enrollment Management & Student Success). Implemented February 2, 2017.
3. Clear Admit: All the following: GPA at/above 3.2, good letter(s) of recommendation, no prior academic or criminal issues (no to SARC question), TOEFL at or above 100 or IELTS at or above 6.5.
4. Live for EMSS February 2, 2017.

Figure 4.7 provides a workflow diagram of this process.

Figure 4.7 Admissions workflow process/incorporating 'Clear Admit & Deny Policy'



Sacramento: In 2014, CCI discontinued accepting LIS students onto the Sacramento campus, given the insufficient use of physical resources and the continued success of the online program, which allows students from the California region full access to MSLIS degree curriculum and CCI services. Admission to the MSLIS program at the Sacramento campus followed the standard process and continued since the last ALA accreditation review through 2014.

Provisional Admissions

Those applicants who do not meet the minimum requirements but demonstrate evidence of potential may be admitted with a provisional status. An example is an applicant currently working in a library with excellent recommendations, but who may have lower undergraduate grades and GRE scores than desired. To make this determination, the College may request more information or an interview with the applicant may be requested, and the dean may be consulted.

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

Curriculum Documentation and Plan of Study

Course and curriculum documentation help students construct coherent programs of study. The structure and content of the MSLIS curriculum and new concentration options are addressed in Chapter 2, Curriculum.

Course Scheduling

The course schedule is overseen by Associate Department Head (ADH) for Graduate Programs Linda Marion in coordination with the Program Director Denise Agosto and IS Department Head Ellen Bass. The ADH reviews course offering schedules with this team, and then coordinates with the Associate Director of Academic Operations Melissa Englund to facilitate releasing the schedule. The schedule is designed to support both full-time and part-time students, making sure program requirements are sufficiently accessible for first-year students, while also confirming that the needs are met for student in the middle of the program or heading toward degree completion. The course scheduling considers faculty availability (as faculty may be on sabbatical) and overall demand.

The scheduling plans also consider the specific needs of part-time students. Part-time students are considered an asset to the College's program given the work experience and maturity they bring to learning and the profession. Additionally, Drexel has a long-standing tradition of making higher education accessible to those in the workforce. The College considers this constituency and provides a full range of part-time educational opportunities. For example, given that most part-time students hold day jobs, face-to-face graduate courses are generally scheduled in the evening.

Evaluation

Students are evaluated on their performance in individual courses. The evaluation is made by the faculty member responsible for the course and can include assignments, papers, projects, examinations, and presentations. Drexel University's Office of Assessment, Accreditation and Effectiveness coordinates with the Office of the Provost to provide guidance in developing appropriate assessment strategies and giving student feedback. Drexel University recently released the *Assessment Handbook for Faculty and Staff* (2016). The Office of Assessment, Accreditation and Effectiveness also provides guidance on developing PLOs (program learning outcomes) for graduate/master's level programs that can integrate with the curriculum and mission of the program and discipline. These developments further help faculty in their development of rubrics for grading and providing feedback to students. The Office of Assessment, Accreditation and Effectiveness provides access to Rubric Development, http://drexel.edu/provost/assessment/resources/rubric-development/, an online resource that offers guidance and examples for developing rubrics that assist in grading and evaluation. More specifically, this resource provides guidance on designing *tasks*, *scale* and *dimensions*. Tasks involve performance and completion of an assignment; and scale links feedback to the task. This University resource provides guidance on offering positive, nonjudgmental language as part of the evaluations. Examples include:

- Positive terms that may be used: Mastery, Partial Mastery, Progressing, Emerging

- Nonjudgmental or noncompetitive language: High level, Middle level, Beginning level

Commonly used labels:

- Sophisticated, competent, partly competent, not yet competent
- Exemplary, proficient, marginal, unacceptable

CCI faculty members design rubrics for their classes and follow these guidelines in ways that work for the classes. The method by which evaluations are communicated to students during the course is left to the discretion of each faculty member.

To remain in good academic standing, students must maintain at least a 3.0 grade point average. If a student's cumulative GPA falls below 3.0, he or she is placed on probation and notified by the Office of Graduate Studies. The student must receive at least a 3.0 average in the next term (or the next nine credits) for which he or she is enrolled. The cumulative grade point average must be a 3.0 at that time or the student will be dropped by the University after an academic review, in consultation with the department head.

Program Flexibility and Advising

CCI has a tradition of providing students with a high degree of flexibility in designing their programs of study. MSLIS advising is organized to ensure that the students remain focused and construct a coherent program of study. The advising system involves four graduate advisors:

- Jay Dukenski, Director of Advising, advises all CCI MS students.
- Bevin Goodniss, Senior Academic Advisor, advises graduate students beginning with last names A-J.
- Lois Kasten, Academic Advisor, advises graduate students beginning with last names K-Z.

- Brenna Martin, Assistant Director of Faculty Support Services and PhD Program Manager, supports all PhD students in conjunction with the students' research advisors and committee.

Each student is assigned a graduate advisor upon admission to the MSLIS program. The graduate advisor is available to the student for questions about course selection, registration, program planning, and any other academic or administrative concerns. Students are expected to be in contact with their advisors on a regular basis for program planning and term-by-term course registration. Graduate advisors are available by e-mail, during graduate advisor walk-in hours (Monday through Friday 10:00 a.m. - 11:00 a.m. and 2:00 p.m. - 3:00 p.m.), and by appointments—in person or by phone. The schedule is equally accessible to both on-campus, and online students; while online students cannot do the physical walk-in, they can attend virtually. CCI's advising staff has prepared the "Drexel University College of Computing & Informatics Advising Syllabus" (Appendix 4.4), which provides guidance to both undergraduate and graduate students across the College. This document addresses advising expectations on the part of the advisor (specifically graduate advisors for MSLIS students) and the student, and provides guidance how the student can best prepare to get the most out of their meeting with their graduate advisor. This document includes a timeline of the Typical Annual Advising Cycle, as well as guidance on the best times to talk to their advisor about certain processes, such as the best time to explore study abroad, pursuing independent study, requesting a pre-requisite waiver, or addressing such challenges as when to take a leave of absence, if necessary.

Advising staff also provide online outreach to students through the CCI Graduate Student Community module, available via Blackboard Learn. The majority of Drexel's MSLIS students are online students, and this forum has proven to be an important point of contact for students to ask questions, share resources, and receive advising feedback. Historically, the College has one of the highest retention and graduation rates across the University, which is a testament to the quality of the advising in the College.

Mentoring

In addition to the academic advising program, the College continues a Graduate Peer Mentor Program to enhance the College community. Graduate peer mentors connect with current students and perspective students online and in-person. Graduate peer mentors help new students with their transition to the College of Computing & Informatics (CCI) at Drexel University, make them feel at home in an academic environment, and enhance their college experience. Graduate peer mentors are knowledgeable about College and Drexel resources and policies, and assist new students in transitioning to graduate life at Drexel, either in person or online. An overriding goal of the graduate peer mentor is to provide guidance on work/school/life balance. Graduate peer mentors are also accessible to perspective students who would like to learn more about CCI and support for in-person and online students, campus life, University policies, and the larger Drexel community.

Students eligible to serve as peer mentors must have a cumulative GPA greater than (or equal to) 3.5, have 12 credit hours completed at the time of application, and be enrolled at least part-time for at least three terms. Mentors are rewarded with a scholarship of $500 that is applied to their financial aid package. The Graduate Peer Mentor Program benefits both the mentor as well as the mentee. Mentors serve a four-term student leadership position, but exceptions may be made for graduating students.

The College currently has two graduate mentors. Although neither of these mentors are in the MSLIS program, they mentor MSLIS students who seek their assistance about CCI, the Drexel Community, various policies, and other aspects of graduate student life. Last year, for one quarter, there were three graduate peer mentors, one of whom was an MSLIS student during her last quarter and has now graduated. The College administration has received applications for next year's mentors, and has actively solicited MSLIS graduate applicants. The incoming

applications are being reviewed with the intent of bringing on the additional mentors before the start of the fall 2017 quarter.

The University also supports an alumni mentoring program. The emphasis of contact with alumni has been at the undergraduate level, connecting to Drexel's Co-op program. Associate Vice President of Institutional Advancement Michelle Yurko has recently been appointed as CCI's Institutional Advancement Officer, and strategies are being developed to focus more on the master's programs, including MSLIS alumni. There will be more opportunities to cultivate the alumni mentoring program. Director of Recruitment Matthew Lechtenberg is exploring options for leveraging the program for the MSLIS.

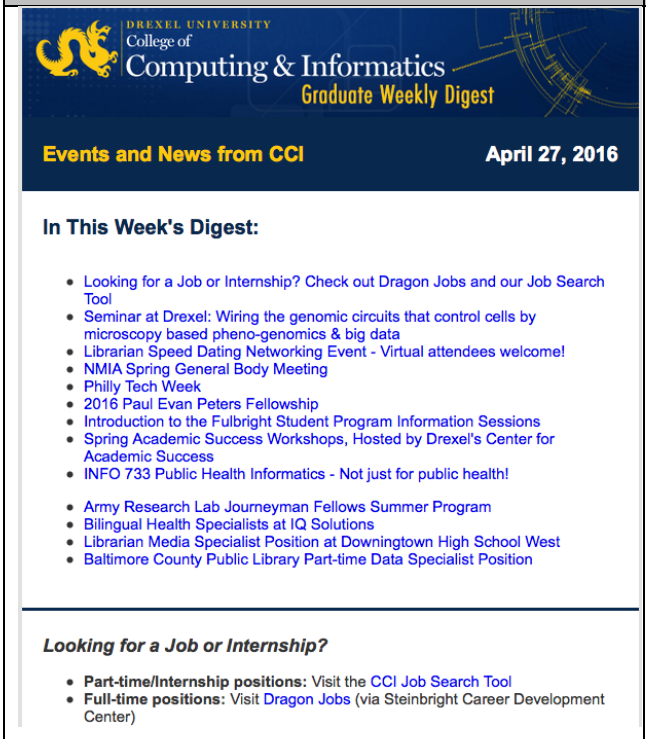
Career Planning and Placement

The Steinbright Career Development Center is the campus' central resource, providing staff for counseling and informational resources for MSLIS students and other members of the University community. This service is open on weekdays, 9:00 a.m.-5:00 p.m., and made accessible to both on-campus and online students. Students can request an appointment with professional staff for career and educational counseling, and can meet in-person or through a phone call. Students also may create a profile in the Dragon Jobs portal, to help them find opportunities matching their desired criteria. As already noted, the Steinbright Career Development Center sponsors a range of career events to aid students with placements. Event examples include mock interviews, topical sessions on interview strategies and tips, and resume preparation. The Center also supports various testing options to guide students in selecting appropriate career paths, which can be of value to MSLIS students in selecting the appropriate internship placement or future professional work environment.

As part of career planning, students often seek work experience and internships. The College of Computing & Informatics Graduate Weekly Digest links students to the Dragon Jobs portal maintained by the Steinbright Career Development Center, and lists other relevant job

announcements. Figure 4.8(a) (left side), presents a screen capture of the Digest's table of-contents for April 27, 2017. The first bullet connects students to these job resources, which are also highlighted at the bottom of the cover-page. Also, noted, are two open positions: a Librarian Media Specialist Position at Downingtown High School West, and a Baltimore County Public Library Part-Time Data Specialist Position. These types of listing often appear in the weekly digest, as various organizations and individuals, often alumni, e-mail the College directly to share opportunities and recruit Drexel MSLIS students. The Digest's table of- contents also provides an example of the types of events that the College facilitates across the University campus. One example to highlight here is 'Librarian Speed Dating: A Networking Event,' advertised for May 4 at the University's Hagerty Library (Figure 4.8(b), right side)

Figure 4.8 Work experience and internships. The College of Computing

4.8(a): Table of Contents	4.8(b): Career Event Example
	Librarian Speed Dating: A Networking Event Presented by the Sigma chapter of Beta Phi Mu Wednesday, May 4 at 7-9pm W.W. Hagerty Library, Room L33 & Online Virtual attendees welcome! At this career networking event, LIS students & recent graduates can meet a variety of librarians and archivists from all walks of the library world. Share experiences and get tips on your career. Register at **bit.ly/LibSpeedDating**

	Questions? Contact **sigmabetaphimu@gmail.com**

IV.5 *The program provides an environment that fosters student participation in the definition and determination of the total learning experience. Students are provided with opportunities to:*

IV.5.1 *Participate in the formulation, modification, and implementation of policies affecting academic and student affairs.*

IV.5.2 *Participate in research.*

IV.5.3 *Receive academic and career advisement and consultation.*

IV.5.4 *Receive support services as needed.*

IV.5.5 *Form student organizations.*

IV.5.6 *Participate in professional organizations.*

The College and the larger University advocate a learning experience that extends beyond the walls of CCI. Through the encouragement and guidance of the graduate advisors, faculty, and the Placement Office, students engage with the University and College community and participate in professional activities to enhance their classroom experiences. Drexel University Online (DUO), serves as a bridge, coordinating with the College and students, so that online students can access integral services, such as Academic Advising and the Placement Office. DUO's infrastructure enables online students to partake in University life, by joining student organizations, attending online events, and enriching their experience. The extent to which these opportunities and services are pursued is at the discretion of the individual student. *Sections IV.5.1-IV.5.6* are covered below, in further detail.

IV.5.1 *Participate in the formulation, modification, and implementation of policies affecting academic and student affairs.*

Student engagement at town halls, college and departmental committees, and other campus activities allows both on-campus and online students to have a voice in academic affairs.

Town Halls

The University President, John Fry, facilitates bi-annual town hall sessions open to faculty, professional staff, and current students. During these gatherings, President Fry delivers a State of the University presentation, followed by an open Q&A session. The most recent University Town Hall was January 11, 2017. President Fry's message was titled "State of the University 2017 and Beyond," which addressed several University developments. Specific to graduate students, President Fry reported on steps that the University is taking, including increasing financial aid, academic offerings, research opportunities, fundraising, and implementing conservative financial planning. This session and other similar gatherings provide students the opportunity to voice their concerns and give input on policies being developed that impact their experience. The venue also provides an opportunity for students and other members of the University community to raise concerns about existing processes, while also sharing their feedback about positive developments. Although online students may not be able to attend town halls in real time, they are archived and accessible, and the Office of the President provides easy access to the cabinet members at http://drexel.edu/president/leadership/staff/, and highlights that anyone should "feel free to direct questions and comments on common topics to members of the President's Cabinet."

College and Departmental Committees and Student Participation

Graduate students have an opportunity to serve on selected committees, and are invited to participate in certain forums. Examples include searches for College and departmental administrators or open forums for candidate lectures. The most recent activity was the search for the new IS department head. The public lecture of the two candidates was an open forum, and students were invited from departmental programs, including the MSLIS. Attending students

were invited to meet with each candidate to provide formal feedback in an anonymous survey. The lecture was recorded, and is accessible to individuals who asked for access. Eight students attended this recent event, representing the MSLIS and other IS Department programs. This is an area in which CCI can work to improve student representation and provide real-time access for online students in the future.

Open Lectures

The University, CCI, and other colleges across the campus provide numerous opportunities for students to learn, engage, and share their opinions. The University master schedule of events are shared through a central events calendar, http://drexel.edu/events**,** he Digital Dragon: Drexel University Online News, Events & More (https://online.drexel.edu/news/digital-dragon.aspx)provides access to online events accessible to all students. Campus-wide events, along with College opportunities, are also announced in the Graduate Weekly Digest, as already noted. Events often are recorded and made accessible on the University's YouTube channel. This past April, as part of National Library Week, CCI's Center Study of Libraries, Information, & Society (CSLIS) hosted a session panel for a session, 'On the Future of Libraries,' (April 10, 2017). This event featured lightning talks followed by a moderated discussion with audience members. Topics broadly covered how libraries, researchers, professionals, and communities are responding to today's rapidly changing sociopolitical and technological landscapes. Among attendees were faculty, professional librarians from the Philadelphia-metro area, and students enrolled in the MSLIS program, and attendance was supported both on campus, and online, in real time. This successful event, 'On the Future of Libraries,' serves as a model for how College activities can further engage student participation online, interacting with individuals on-campus.

IV.5.2 *Participate in research.*

Research

MSLIS students have opportunities to engage in research across the University and the College. Although faculty overseeing research projects generally hire doctoral students, they also recruit

master's students who have an interest in research and evaluation. Research opportunities have been made accessible to students who are online or work in a hybrid fashion, with both in person and online meetings. Skype, Zoom, WebEx, and Google hangouts are used by faculty and students to communicate and coordinate research activities. Over AY 2014-16, three MSLIS students worked with Dr. Alex Poole examining data curation and digital humanities at libraries within historical black universities. In addition, six masters students (three of which were MSLIS students) worked in the Metadata Research Center (MRC), engaging in original research, and one graduate student took leadership on a paper presented at the Dublin Core international metadata conference in Brazil. The CSLIS, MRC, Health Informatics Institute, NSF Center for Visualization & Decision Informatics provide important venues where students can engage in research or learn about new developments.

Students also participate in research through the curriculum. Examples of bringing research into the classroom includes 1) comparison analyses (comparing library workflows, library organizational charts), 2) content analyses (comparing metadata records, content and guidelines on library chat reference pages, pathfinders, or mission statement), and 3) case studies (examining a library or system in-depth). Research activities that involve human subjects, such as implementing a survey or conducting an experiment, require IRB (Institutional Review Board) review approval. This types of research generally requires more than a single quarter to complete, and students may pursue research through independent study. Finally, research is part of student learning, in that faculty include readings, reporting research, and development that impact library operation and services. Exposure to research is important to developing critical thinking skills and becoming a well-rounded information professional.

IV.5.3 *Receive academic and career advisement and consultation;*

Section IV.4, above, "Program Flexibility and Advising," provides a more detailed account of how students receive academic guidance working with a graduate advisor, by mapping out the best plan of study. In addition to attending office hours, MSLIS students can request an

appointment with a faculty member. Such interactions can occur face to face, over the phone, or via teleconferencing or other technologies. All full-time tenure-track and teaching faculty make themselves available to students both on-campus and online. Adjunct faculty are accessible via phone or virtual technologies, as well as in person if they are local.

Above Section IV.4 "Career Planning and Placement" gives further information on career planning and the Steinbright Career Development Center. This Center and the resources described are accessible to on-campus and online students. Online students also are invited to attend the job fairs, but must come in person to attend these events. The job fairs generally target undergraduate students, but are not exclusive, and master's students do attend.

IV.5.4 *Receive support services as needed;*
The Drexel University Student Handbook, http://drexel.edu/studentlife/community_standards/studentHandbook/, provides the University's policies, rules, regulations and standards of conduct as well as information to help students be successful at Drexel University. The Handbook applies to students at all levels, and provides information on a number of services for addressing grievances and challenges. Most of these services are accessible to both on-campus and online students.

Drexel also provides services via the Office of Counseling and Health Services and the Counseling Center to support student well-being. The Counseling Center offers website resources and telephone consultations for online students. Full-time online students who are able to engage in on-site therapy are eligible for free services. Part-time students are eligible for a one-time consultation with a Case Manager to help identify personal concerns and to find appropriate resources in the student's area or residence.

Additional services address the social, cultural, and educational life outside of the classroom. Core resources include:

- Creese Student Center: The University's student center complements the educational mission of the University through cultural, educational, social, and recreational programs. The Creese Student Center has an Information Desk.
- Ross Commons – Similar to the Creese Student Center, the Commons serve as a student center on the north side of campus.
- International Students and Scholars Services (ISSS): ISSS staff work to promote meaningful interaction between United States citizens and nationals of other countries.
- Commuter Student Engagement: This office provides its constituents with student learning and engagement opportunities outside of the classroom.
- Office of Veteran Student Services: This is a campus-wide effort that unifies services and supports and provides mentorship for veterans.
- Office of Student Conduct and Community Standards: The conduct process attempts to foster personal learning and growth, while at the same time holding individuals and groups accountable for inappropriate behavior.
- Public Safety: Drexel's Department of Public Safety is committed to ensuring a safe environment, providing preventative and protective services and programs to the entire Drexel University community. The Drexel University Police Department is on patrol at all times in buildings and around campus, and students have access to DrexelALERT, emergency telephones, and walking escorts.

IV.5.5 *Form student organizations;*

Student Organizations

The most active LIS organization on campus is the Drexel University Library & Archives Student Association (DULASA). DULASA is the umbrella group for the officially recognized student chapters of the ALA (American Library Association), SLA (Special Libraries Association) and SAA (Society of American Archivists). DULASA operates as a chartered campus organization and has been awarded an annual operating budget from the University's

Office of Campus Activities for the past twelve years based on the effort of student volunteer officers completing an annual cycle of paperwork and required trainings.

DULAAS currently has five officers coordinating events, and includes twenty-three members registered through the official club portal. Additionally, fifty-eight people, the majority of whom are active MSLIS students or recent graduates, follow DULASA through their Facebook page. Tim Siftar, liaison librarian for the School of Education and the College of Computing & Informatics, serves as the DULASA faculty advisor.

Student engagement in DULASA fluctuates throughout the academic year. The engagement depends greatly on the interests of the student body and the availability of effective leadership. The fact that the majority of MSLIS students are part-time with significant job and personal responsibilities has likely had an impact on student engagement, although the online presence of DULASA's events makes it possible for part-time and remote students to engage during a time period that works for them.

MSLIS students also can participate in the Graduate Student Association (http://www.drexelgsa.com/). All graduate students are automatically members. The GSA can publicize DULASA sponsored events to other graduate students, thus providing MSLIS students with another, future professional network. IS Department doctoral students tend to be more active in GSA compared to MSLIS students, likely because of many MSLIS student are part-time and online.

DULASA and GSA are student-driven, although faculty mentors provide guidance, suggesting ideas, helping students to make professional contacts, inviting prominent guests, or connecting to places they would like to visit. Professional staff members also help students with logistics, such as budgeting and making travel arrangements. This student-driven approach is part of professional development.

IV.5.6 *Participate in professional organizations.*

DULASA is open to every LIS student, has strong support for both on-campus and online students, and has no membership fee or special membership requirement, although officers are required to be members of the affiliated national associations. DULAS events are generally well attended and can draw up to twenty or so students in person, with additional students participating online. Through social and professional events on-campus DULASA provides a venue and experience in which MSLIS students can meet library and information professionals from different types of libraries and information centers, library vendors, and information science experts. DULASA's goal is to live stream and record all events, so they are available to virtual attendees synchronously, and accessible later to all members.

Table 4.15 DULASA Sponsored Events

2017 events-Examples
• THREAT MODELING FOR LIBRARY PATRON PRIVACY OUTREACH: https://1513041.mediaspace.kaltura.com/media/Threat+Modeling+for+Library+Patron+Privacy+Outreach/1_dy7y383r
• Internship at Museum Natural History NY: https://1513041.mediaspace.kaltura.com/media/Internship_at_Museum_Natural_History_NY/1_n3gjpe8x
• DULASA Debrief from ACRL 2017 Annual Conference: https://1513041.mediaspace.kaltura.com/media/DULASA+Debrief+from+ACRL+2017+Annual+Conference/1_5cwjiy9r
• DULASA Redemptorist Archive Visit 20170127: https://1513041.mediaspace.kaltura.com/media/DULASA+Redemptorist+Archive+Visit+20170127/0_1lprmxzg
• DULASA Tour of Phila Archives: https://1513041.mediaspace.kaltura.com/media/DULASA_Tour_of_Phila_Archives/1_mc7a58f
2016 events-Example
• PART 8: Legal Research series, coordinated by the Greater Phila Law Librarian Assn and hosted with technology support by DULASA for the third year in a row.: https://1513041.mediaspace.kaltura.com/media/GPLLA-

DULASA+Legal+Research+Training+Session+8/1_ihoipzyr

Faculty teaching in the MSLIS program active in many organizations (ALA, ACRL, ASIST, SAA, PLA, etc.) and regularly forward announcements their classes, nominate students for awards, and share volunteer opportunities with students. This information is also included in the weekly digest. Faculty, thus, serve as an important link for students to these organizations.

Engagement in the student organizations noted above serves as a link to professional organizations. MSLIS students may also join national organizations, such as ALA, SLA, MLA, PLA, ASIST ACRL, and/or regional organizations, such as the Pennsylvania Library Association, New Jersey Library Association, Pennsylvania School Librarians Association. Close to 75% of MSLIS students belong to one or more professional organization. A chief motivator is the 25% tuition discount students receive when joining one of these organization. Student membership benefits are important for professional development. Additionally, regional affiliations help students learn about local activities and can connect them with professionals in the area.

Finally, at the College level, CCI has recently taken the lead in Drexel's membership in the Academic Alliance of the National Center for Women & Information Technology (NCWIT). Two faculty members in the Department of Information have taken the lead, and participation is open to MSLIS graduate students.

IV.6 *The program applies the results of evaluation of student achievement to program development. Procedures are established for systematic evaluation of the extent to which the 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.*

Evaluation of Student Achievement

There are many type of student achievements including excellence in academics, service, research, and professional accomplishments both inside and outside of Drexel University. Students' achievements are tracked through news of student success. This data is generally recorded by the communications staff. Additionally, students complete course evaluations after each quarter and are asked to comment on their individual learning and work goals. This systematic evaluation process is used to modify and enhancing course content as well as teaching methods, and is reviewed in more detail in Chapter 2. In addition, mid-point course evaluations, informal class discussion, and other interactions also support this process.

The school also shares news of graduate and alumni achievements through both the Graduate Weekly Digest and the College website. Currently, our website profiles include MSLIS student James Ritter speaking about his career journey to his current role as state librarian at the Maine State Library. The profile piece shares his experience and trajectory, and how Drexel's online program "encouraged him to embrace the mindset of lifelong learning." Another profile is given by MSLIS alumni Isabel Moreno-Santiago in video format, in which she describes her experience and what she learned through Drexel's program that has been vital to her professional goals. Both profiles are found at: **http://drexel.edu/cci/academics/programs/graduate-programs/ms-in-library-and-information-science/**.

Placement

MSLIS graduates have pursued placements in a variety of library environments, and are working in a range of professional positions, extending from fairly standard positions in reference, cataloging, and collection development, to emerging areas in curation, digital humanities, and social computing. The library science and the information profession is continuously changing due to technological and digital innovations. Today's MSLIS graduates enter the workforce with a different skill set compared to MSLIS students from as little as six years ago. Most have Facebook accounts, many use LinkedIn for professional exchange, and others have Twitter accounts that are used for professional engagement and learning. These changes have been

driven by technological innovation interceding our lives, and assist students in their pursuit of professional placement. Students have access to online job forums, are able to create profiles through LinkedIn, and even generate professional homepages, sharing their vitae, as well as information about their course activity.

Specific to the College, there have been efforts to track placement of MSLIS graduates. For example, 179 MSLIS alumni completed Drexel's Placement Survey Analysis in October 2013. Data from the report show that MSLIS graduates were equally dispersed between full-time and part-time positions. Of the 179 respondents, 137 (77%) were employed and 42 (23%) were unemployed. At the time of the last ALA accreditation review, the College oversaw the annual exit survey, and could track graduates' employment rates on an annual basis. Due to a University-wide policy change, the College no longer has this oversight. The process has been modified to include questions applicable to the larger University, which presents a challenge for tracking graduates. Despite this challenge, published data sources provide more insight into the success of student placement. Table 4.16 reports 2014 and 2015 MSLIS Graduates and Placement.

Table 4.16 Total No. of MSLIS Graduates and Placement (Library Journal) (2014-2015)

	Graduates			**Employed**			**Response Rate**	
	Women	Men	Total	Woman	Men	Total	No. Received	Rate
2014 (LJ 2015)	110	40	150	18	3	21	30	20%
2015 (LJ 2016)	103	17	120	4	1	5	8	6.7%

Table 4.17 below lists selected employers for graduated students spanning 2010-16.

Table 4.17: Selected Employers

Aramark (Industry)

Philadelphia Archdiocesan
Baltimore County Public Library
Boston College Law
Cape May County Library
College of Physicians of Philadelphia
Aquent (Industry)
Halcyon (Industry)
Drexel University
Fordham University School of Law
Free Library of Philadelphia
Harvard University
Just Reviews (Industry)
Lewisville High School
Dover Public Library
Librarian, Brick Township High school
Newtown Theological Library
Oregon Health & Science University
Penn State
Rider University
Sequoyah Regional Library
Swarthmore College
UConn School of Law
University of Chicago Law School
University of Georgia
Winder university
Yale University

There is a wide range of employment opportunities for MSLIS graduates in both traditional and nontraditional areas.

There are other, less formal indicators that provide the College with feedback on its graduates' success. One key example is number of employers who regularly reach out to the College to fill their staff vacancies. Informal contacts maintained between employers in the area and the College's faculty and administration have proven a valuable source of feedback on the success of the graduates. Another data source is student and graduate feedback. It has been the tradition that students quickly learn to be candid and open in their evaluation of the program; this attitude

is carried on after graduation as well. Finally, one of the most useful channels for feedback are the active alumni gatherings at ALA, SLA, and related conferences. These Drexel events are generally well-attended and provide an opportunity for recent and seasoned graduates to provide feedback to attending faculty as well as the Director of Recruitment Matthew Lechtenberg about Drexel preparation and their professional placement.

IV.7 *The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of student learning outcomes, using appropriate direct and indirect measures as well as individual student learning, using appropriate direct and indirect measures.*

Drexel University is moving increasingly toward formalized assessment. As a part of an ongoing University-wide initiative, in 2013, CCI's Assessment Coordinator Prof. Delia Neuman oversaw the creation of a College-wide Assessment Plan (see Appendix 4.5: MSLIS Learning Assessment Plan 2013-18). Direct measures for assessing student achievement include course assignments tied to each of the MSLIS program learning outcomes. Individual instructors are responsible for grading assignments and reporting grades to course coordinators who then consider aggregate grades in relation to each course objective. The benchmark is measured as follows: At least 90% of students in each year earning the equivalent of eight out of ten or higher on each specified objective and at least 80% earning the equivalent of nine out of ten for each objective. In cases in which aggregate grades fall below the benchmark, the course coordinators lead review and discussion of course content and assignment revisions with the assessment coordinator and with other appropriate faculty and administrators (see Appendix 4.6: Assessment Procedure for Course Coordinators).

Indirect achievement measures include end-of-term course evaluation surveys distributed in every course in the MSLIS program. Evaluation forms ask students to rate their perceived learning for each of the stated course outcomes, phrased as: "I would rate my ability to do the

following as …." Students use a ten-point scale to respond. The benchmark for success is at least 90% of students in each year rating themselves at eight or higher on each specified course objective and at least 80% rating themselves at nine or above. In cases when aggregate student ratings for course objectives fall below the benchmark, instructors work with the assessment coordinator and other appropriate faculty and administrators to revise course content to lead to improved student learning responses.

In keeping with the MSLIS Assessment Plan (Appendix 4.5), a new approach to assessing students' academic achievement was implemented in summer 2013. Table 4.18 below presents the schedule for the initial cycle.

Table 4.18. Implementation Schedule--MSLIS Assessment Plan.

Course	Data Collection	Data Analysis & Course Revision	Revised Course Offered
INFO 520	Spring 2013 (pilot)	Fall 2013	Winter 2014
INFO 522	Spring 2013 (pilot)	Fall 2013	Winter 2014
INFO 521	2013-2014	Fall 2014	Winter 2015
INFO 640	2013-2014	Fall 2014	Winter 2015
INFO 515	2014-2015	Fall 2015	Winter 2016
INFO 630	2014-2015	Fall 2015	Winter 2016

Six core courses were planned for this assessment, and two courses each year were focused. This plan ensured that each of the core courses were reviewed and revised as necessary. Out of six core courses, four courses were completed in 2013 through 2015. Appendix 4.6 presents review of INFO 520 and INFO 522; Appendix 4.7 presents INFO 521 and INFO 640.

Both indirect measures (end-of-term course evaluation) and direct ones (instructors' assignments) were used to assess students' achievements on each assignment that is related to each relevant program learning objective and course learning outcome. Aligning the assignments with the program learning objectives, course outcomes, and the tools used to assess students' performance

(projects, discussion board topics, papers, etc.) was done to provide a clear and systematic framework that links outcomes, assignments, and assessments to foster and guide the continuous improvement of the courses and of students' levels of achievement.

Tables 4.19-4.20 below present comparison of indirect and direct assessments of the above mentioned four core courses.

4.19 Direct and Indirect Assessment: INFO 522 (168 student)

Direct Assessment			
Course	**Objective**	**Level 9 (direct)**	**Level 8 (direct)**
INFO 522	Demonstrate (apply) an understanding of the fundamentals of database construction	53%	89%
Indirect Assessment			
Course	**Objective**	**Level 9 (indirect)**	**Level 8 (indirect)**
INFO 522	Demonstrate (apply) an understanding of the fundamentals of database construction	42%	72%

4.20 Direct and Indirect Assessments: INFO 521 (158 students)

Direct Assessment			
Course	**Objective**	**Level 9 (direct)**	**Level 8 (direct)**
INFO 521	Create online resources, such as a wiki page or a blog, to support information services.	98%	99%
	Assess and answer reference questions with widely used reference resources.	85%	99%
	Evaluate the provision of information services in virtual and in-person settings	67%	82%
Indirect Assessment			
Course	**Objective**	**Level 9 (indirect)**	**Level 8 (indirect)**
INFO 521	Create online resources, such as a wiki page or a blog, to support	68%	87%

	information services.		
	Assess and answer reference questions with widely used reference resources.	65%	89%
	Evaluate the provision of information services in virtual and in-person settings	84%	93%

4.21 Direct and Indirect Assessments: INFO 640 (192 students)

Direct Assessment			
Course	**Objective**	**Level 9 (direct)**	**Level 8 (direct)**
INFO 640	Apply basic concepts, theory, and practice of management in the context of information organizations (management analysis assignment).	86%	99%
	Apply fundamental concepts of financial management to develop and justify a program budget (budget exercise assignment).	65%	94%
	Apply commonly used management techniques and tools to identify core organizational issues and recommend approaches for improving performance (case study assignment).	85%-95%	99%
Indirect Assessment			
Course	**Objective**	**Level 9 (indirect)**	**Level 8 (indirect)**
INFO 640	Apply basic concepts, theory, and practice of management in the context of information organizations (management analysis assignment).	67%	85%
	Apply fundamental concepts of financial management to develop and justify a program budget (budget exercise assignment).	64%	79%
	Apply commonly used management techniques and tools to identify core organizational issues and recommend approaches for improving performance (case study assignment).	60%	85%
	Describe the nature and role of managers, including personal effectiveness, problem solving, leadership, conflict resolution, and change management (case study assignment).	72%	88%
	Apply group development skills to foster a collaborative work environment (case study assignment).	58%	78%

IV.8 The program demonstrates how the results of the evaluation of student learning outcomes and individual student learning are systematically used to improve the program and to plan for the future.

Course assessment connecting to program learning outcomes, student learning assessed by rubrics and final grades, provide important measures for assessing the curriculum and overall MSLS program. These assessments, and continued refinement of this work, is useful to the MSLIS curriculum revisions taking places, and identify areas that needs attention in revising and planning the new core courses. For example, with 522, the measure of "Demonstrate (apply) an understanding of the fundamentals of database construction" Level 9, the direct measure was just over 53% (out of 168 students), and the indirect, was a bit under 50% (at 42%, of 168 students). The 522 course has been removed from the MSLIS curriculum, although having a fundamental understanding of databases structure is an important learning activity. These assessment results have informed a current discussion and we are assessing the knowledge required for MSLIS students in this area, as we develop the new "INFO590 Organization of Data and Information" and "INFO591 Data and Digital Stewardship" courses. Another measure, the indirect score of 58% (out of 192 student) for "Apply group development skills to foster a collaborative work environment (case study assignment)," is a topic that required attention more broadly, across our MSLIS curriculum, with opportunity to leverage the Black Board group work functionalities, and other collaborative tools. A topic for an upcoming Wednesday faculty discussion is how to facilitate group activity, online, as a few faculty have had highly documented success, and can share with other faculty members.

The assessment of the courses presented above in *IV.7* presents examples of several data challenges, such as the low response rates on the evaluation forms and the noted variability across assessment strategies and grading practices. Despite these issues, this well-planned assessment effort has put in place a useful framework that can help with structuring systematic feedback. Following from section IV.7, the assessment coordinator presented reports to the

course coordinators for INFO 520, INFO521, INFO 522, and INFO 640. The course coordinators accepted the reported finding, and agreed to work toward addressing the issues and to work with the course instructors to develop guidelines (including evaluation rubrics) that would make the grading of targeted assignments more comparable, also taking into account the curriculum reform. Chapter 2 of this ALA self-study, addresses CCI's MSLIS curriculum reform, which has been in effect since AY 2014-AY15. This effort has helped to determine a more strategic plan for the implementation schedule of the Learning Assessment Plan (see Table 4.15 above). Given curriculum revision priorities, it was not feasible to fully review INFO 515 and INFO 630; however, once we complete new LIS core courses, we plan to resume our review process using the framework of the Learning Assessment Plan to improve our program further.

Finally, it is also important point out that during the annual review, individual faculty members discuss course assessments with the Department Head—both positive aspects, and plans to address challenges. Although these discussions are more specific to faculty members' performance, rather than the overall program, the discussion can identify program needs, underscore strong areas of student learning and the program design, as well as areas that require greater attention in the curriculum. Course coordinators take on the responsibility of revisions, working with feedback and frequently reach out to faculty who also teach the same course.

Summary

The MSLIS program, in the Information Science Department, College of Computing and Informatics, Drexel University, educates the student body and prepares future professionals to lead, develop, and sustain successful information services across a wide variety of library and related information environments. The MSLIS program follows a valued recruitment and admission plan, and provides academic guidance, career planning, and financial aid assistance. The program is well-documented, with descriptions, policies, and procedures publicly accessible through a variety of media, and student support from knowledgeable, accessible, and caring faculty and administrative staff.

DREXEL UNIVERSITY College of Computing & Informatics

CHAPTER 5: ADMINISTRATION, FINANCES AND RESOURCES

Overview

The College of Computing & Informatics (CCI) is one of fourteen Colleges and Schools within Drexel University. The College has appointed a new dean, Dr. Yi Deng after the search committee conducted a nationwide search to fill the position when Dean Emeritus David E. Fenske stepped down in June 2015. Two associate deans have been appointed: Gregory Hislop as senior associate dean for academic affairs and Ali Shokoufandeh as senior associate dean of research.

While President Fry continues as President, Dr. M. Brian Blake has been appointed as Executive Vice President for Academic Affairs and Provost to replace Dr. James D. Herbert's Interim Provost position. Dr. Blake also is a Distinguished Professor of Systems and Software Engineering at CCI. Dr. Ellen Bass was appointed as the department head for the Department of Information Science in May 2015; her position as the department head will be replaced by Dr. Xia Lin starting in September 2017.

One major institutional change is the declining University enrollment in the past three years. This has had an impact on the University as a whole. The enrollment decline is the byproduct of the University's strategic plan of "recruiting and enrolling future alumni, not just freshmen, with improving retention and graduation outcomes." Thus, the retention rate has gone up by five percent from 2014-15.

The College has made effective use of its current physical space in the Rush Building, University Crossing, and 3401 Market Street (University City Science Center). Faculty offices are generally comfortable and well equipped; faculty computers are updated once every four years; and Rush classrooms contain state-of-the-art telecommunications and presentation technologies. The iCommons, located in the Rush Building, serves as the main computing and collaboration facility

for the College, providing the faculty, students, and administration with equipment and services in the areas of computing, information systems, audiovisual equipment, and bibliographic access.

Response to the Standards

V.1 *The program is an integral yet distinctive academic unit within the institution. As such, it has the administrative infrastructure, financial support, and resources to ensure that its goals and objectives can be accomplished. 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 program within the general guidelines of the institution. The parent institution provides both administrative support and the resources needed for the attainment of program objectives.*

CCI is one of fourteen Colleges and Schools within Drexel University. The others — which include the College of Arts & Sciences; College of Engineering; Bennett S. LeBow College of Business; Antoinette Westphal College of Media Arts & Design; Close School of Entrepreneurship; Drexel University College of Medicine; College of Nursing & Health Professions; Goodwin College of Professional Studies; Dornsife School of Public Health; Thomas R. Kline School of Law; Biomedical Engineering, Science & Health Systems; Pennoni Honors College; and School of Education—comprise the major academic units of the University. (See Figure 5.1 for the Provost's Level Organizational Chart, which does not include the College of Medicine.) Information about the reporting units at the Provost's level also is available on the Office of the Provost website at: http://drexel.edu/~/media/Files/provost/org-chart/otp_orgchart.ashx?la=en. CCI has as much autonomy as any of the other schools and colleges at Drexel University.

Intellectual Content

All academic units have control over the intellectual content of their programs (with curricular oversight by the Senate Committee on Academic Affairs, the Faculty Senate, and the Provost's

Office). The CCI Curriculum Committee has the responsibility of overseeing the development and revision of all curricula in the College. All approved proposals for new courses or revisions to courses are brought to the full faculty for vote. If the proposals require changes in the University Catalog, they must also be approved by the Senate Committee on Academic Affairs (SCAA), the Faculty Senate, and the Provost's office. Details about the curriculum are provided in Chapter 2: Curriculum.

Selection and Promotion of Faculty

Selection and promotion of faculty also fall within the purview of the colleges and schools and these decisions are based on program-relevant criteria. CCI hires full-time tenured, tenure-track and teaching faculty. CCI forms a Search Committee that makes recommendations to the dean on the basis of the qualifications of the candidates, the fit of the candidate within the College, and input from faculty and students. The dean will review the recommendations from the Search Committee when making a determination of which candidate or candidates to offer a position. Before making an offer to a candidate, final approval must come from the Provost's Office. Details related to the hiring process are provided in Chapter 3: Faculty.

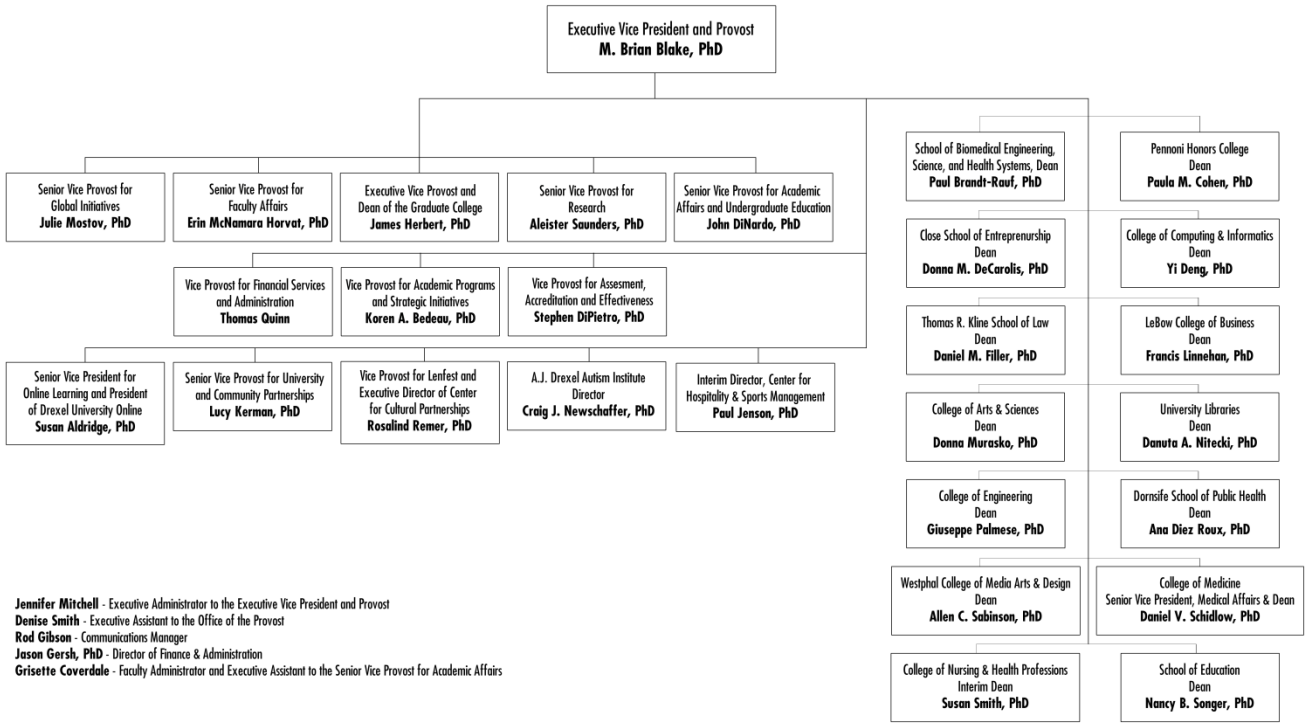
A Promotion and Tenure Committee is first formed at the department level. The department-level Committee reviews all cases for promotion and tenure in their respective departments (i.e., Information Science and Computer Science). For tenure cases, the department-level Committee consists of tenured faculty at the ranks of associate and full professor from the candidate's department and at least one faculty member from another department in the College or University.

For promotion to full professor, a Committee of full professors is formed. The department-level Committee makes a recommendation to the candidate's department head. The department head then makes a recommendation to the College-level Committee. The candidate has the opportunity to receive the committee report and the department head's letter and to make a rebuttal. The College-level Committee is convened by the Dean and consists of all Department

Heads and one tenured faculty member from each department (including associate deans with academic appointments, who may serve as voting members). If the Committee is considering a promotion to full professor, then the additional faculty members must be full professors. Otherwise they may either be tenured associate or full professors. The chair of a candidate's department-level Committee is a non-voting member of the Committee for that candidate. The College-level Committee votes its recommendations and writes a report for each candidate. The recommendations and report(s) are submitted to the Dean and shared with the appropriate candidate(s).

The candidate has the opportunity to receive the committee report and the dean's letter and to make a rebuttal. The dean, who in turn makes an independent recommendation that, is submitted to the Provost along with the Promotion and Tenure Committee's, recommendation, and candidate's rebuttal letters (if any). The Provost has the right but not the obligation to convene the Provost Advisory Committee. The proceedings of the Committee are advisory only. The function of the Committee is to discuss broad aspects of University tenure and promotion cases but not to make a formal vote on any candidate. The provost makes an independent decision and then seeks final approval from the president and the board of trustees. In cases where a faculty candidate is being considered for hire with tenure, there is a tenure review for this candidate.

Figure 5.1 Provost Organizational Chart (As of March 18, 2017)



Admissions

CCI admits applicants to the program whether the applications are received from Drexel University Online (for the online program) or from Enrollment Management and Student Success (for the face-to-face programs). CCI sets admissions requirements for students in the MSLIS program and applies these requirements consistently. All applications are reviewed by a member of the College's admissions team and an associate dean. Admissions criteria and the admissions processes are described in detail in Chapter 4: Students.

University Support for the College and MSLIS Program

The upper administration is supportive of the programs of CCI and provides the resources and policies that enable us to attain our program objectives. CCI holds a strategic position within the University. Drexel positions itself as "Philadelphia's technological university" and information

technology is one of its designated focus areas. This provides a very good general atmosphere for the more "systems-oriented" programs. As of spring 2017, The Department of Information Science has thirty-four full time faculty members and twenty adjuncts. The College has sixty-seven full-time faculty members and thirty-three adjuncts. In general, the University provides the College faculty lines in response to enrollment (and related data points such as credit-hour generation). For teaching faculty lines, the College may create these lines subject only to approval of the Provost's Office. As of FY 18, online funds are not treated separately and the College needs to identify funds from within the College's budget to create or file a line. In general, start-up funds for tenured or tenure-track hires are shared equally between the College and the Provost's Office. In these cases, the source of the College's start-up funds is overhead share.

The Office of Faculty Development and Equity provides support to faculty. This office designs programs related to faculty recruitment, retention, and advancement. The office is motivated to "coordinate efforts across the University community to attract, recruit, retain, develop, promote and support diverse and talented faculty who engage and inspire our students" -- http://drexel.edu/facultyaffairs/about/welcome/ . This office offers annual Career Development Awards to faculty to help them increase collaborations with colleagues at other institutions. These grants are targeted at junior or mid-career faculty. Dr. Deborah Turner of CCI was an awardee for AY 2014-15 for her project "How People Interact with Information to Move Across Contexts Over Time When Negotiating a Better Quality of Life".

CCI receives indirect funds from external funding in the form of grants. The colleges and schools at Drexel University receive 30% of the indirect costs from funded research projects. If a grant proposal includes cost sharing (as is the norm for IMLS grants), there is no further distribution to the principal investigators (PI). If the grant proposal does not propose cost-sharing, then a portion of the College's indirect funds goes into a cost center for the PI if the budget allows. Because funded research projects are grouped based on PIs' department associations (but not degree programs), the exact percentage of funds that have come to the MSLIS program since the

reorganization is unavailable. In addition to funded research projects, the Department has created innovative ways to support LIS faculty and student. For instance, the Instructor of Record program (IoR) currently has funded three LIS doctoral students mentored by three LIS faculty members respectively. IoR provides a full-year tuition and stipend for each of these students.

CCI has a consistent history of being a financially sound unit within the University. The University continues to provide the College with sufficient and discretionary resources for online courses since this provides a means of self-funding, in addition to the support provided by the University. Funds in the Online Cost Center have been used to achieve program objectives through the addition of faculty (with major online teaching responsibility), upgrades to physical facilities and equipment, and faculty development and travel.

The MSLIS program is a distinctive program within CCI. It is the largest graduate program and the largest online program in CCI. The program and its associated concentrations are highly ranked by *U.S.News and World Report*: 11th for the overall MSLIS program, 7th for Digital Librarianship, 3rd for Health Librarianship, 4th for Information Systems, and 7th for Services for Children and Youth. Meanwhile, the MSLIS program also enjoys a high degree of autonomy within CCI. The program has an independent MSLIS curriculum committee. In September 2016, the department appointed Professor Denise E. Agosto as the new MSLIS program director, who leads the effort in student admission, curriculum, and other key aspects of the program.

Over the last three years, Drexel has been adopting a Responsibility Center Management (RCM) model of budgeting. RCM should offer a number of advantages over Drexel's previous traditional incremental model of budgeting: increased transparency into budget decisions, enhanced stewardship of funds, incentives for academic entrepreneurship and a data-based foundation for resource allocation decisions. The 2015/2016 academic year was a “parallel process” in which the University continues to operate according to the rules of its historical budgeting process; reports will be available, however, to illustrate how the institution would look from a financial standpoint if it were operating according to RCM. 2016 is the year of “hold

harmless/hold benefit" period in which the units operate according to RCM, but the financial impact of any decisions are managed centrally, to allow for identification/remediation of any unintended consequences. This transition to RCM has so far taken three years and the final result may not be known for another year or two. In the meantime, the transition has been a difficult process. CCI has been diligently following the processes of implementing RCM.

V.2 *The program's faculty, staff, and students have the same opportunities for representation on the institution's advisory or policy-making bodies as do those of comparable units throughout the institution. Administrative relationships with other academic units enhance the intellectual environment and support interdisciplinary interaction; furthermore, these administrative relationships encourage participation in the life of the parent institution. Decisions regarding funding and resource allocation for the program are made on the same basis as for comparable academic units within the institution*

CCI is well represented on the University's advisory and policy-making bodies as compared to comparable units. Dr. M. Brian Blake, appointed as provost in 2015, is also a distinguished professor at CCI. Dr. Danuta Nitecki, dean of libraries, is also a professor at CCI with full faculty responsibilities and privileges. Two CCI faculty members currently serve as senators on the Faculty Senate, with three faculty alternates under the current Charter. At the beginning of each academic year, the chair of the Nominating Committee validates the number of voting members in each academic unit. Starting this last academic year, the leaders of the College's clusters serve as a Nominating Committee for external representatives of the College throughout the University, thus increasing faculty governance.

In addition to the Faculty Senate, CCI faculty members serve on all its standing committees (Academic Affairs, Faculty Affairs, Budget, Planning & Development, Academic Support, Student Affairs, and Nominations). LIS faculty members, in particular, have made significant contributions as members or chairs of University-wide committees in support of Provost Search Committee (Dr. Turner), University Senate Committee on Academic Affairs (Drs. Marion,

Unsworth, and Yang), University Student Life Committee (Dr. Rogers), University Faculty Grievance Committee (Dr. Gasson), University International Council (Drs. Khoo and Lin), University Library Advisory Committee (Dr. Unsworth), University Steering Committee (Dr. Marion), Steinbright Faculty Advisory Committee (Dr. Marion), Fulbright Review Committee (Dr. Turner), and University Appellate Board/Conduct Board (Dr. Turner), University Emeritus Review Committee (Dr. Lin), and University Senate (Dr. Marion). Members in the University Senate Committee, Student Life Committee, Faculty Grievance Committee, and Academic Affairs Committee are nominated and voted by faculty.

The senior associate dean for academic affairs attends several University-wide meetings including the Associate Deans Council and the Commencement Committee. The senior associate dean for research attends the University-wide meetings of the Associate Deans of Research as well as the Students Tackling Advanced Research (STAR) advisory meeting (honors program for undergraduate students). CCI has professional staff representation on the Retention Workgroup and the Advising Leadership Group.

Students at CCI have the same opportunities for representation as do students in other units at Drexel. CCI has student representation in the Graduate Student Association. The active research environment at the College is evident in our participation in Research Day, an annual event that allows students at all levels (doctoral, master's, and undergraduate) to share their research with the University. CCI is well represented at this annual event, most recently held May 1, 2015, by students who presented posters and faculty who serve as judges.

The department's faculty also has participated in a wide range of interdisciplinary interactions. Dr. Andre Forte, associate professor of information science, is an affiliated faculty member at the Expressive and Creative Interaction Technologies (ExCITe) Center. Dr. Kristene Unsworth and Dr. Michael Khoo, both are affiliated faculty at the Center for Science, Technology and Society, College of Arts and Sciences. Dr. Gabriela Marcu, assistant professor of information science, is a research fellow with the A.J. Drexel Autism Institute at Drexel University. Dr. Ellen Bass,

professor of information science, has a joint appointment at College of Nursing and Health Professions and an affiliate with the School of Biomedical Engineering, Science and health Systems.

V.3 *The administrative head of the 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 administrative head 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*

As a private institution, Drexel University is not required to release salary information. Salaries, except for the top officers, are confidential. The Department Head's compensation package includes course load reductions, one summer month of salary, a monthly stipend, and designated administrative support.

The former College of Information Science and Technology was a single academic unit and did not have any departmental structures. The new College of Computing & Informatics (CCI) was formed in 2013 through a merger of three previously separate academic units: the former College of Information Science & Technology (The *iSchool* at Drexel); the Department of Computer Science (from the College of Engineering); and the Computing and Security Technology program (formerly housed in the Goodwin College School of Technology and Professional Studies). During this process, two departments were formed under CCI: the Department of Information Science and the Department of Computer Science.

Dr. Ellen Bass was appointed as the department head of Department of Information Science at CCI in May 2015. Dr. Bass holds a PhD in systems engineering from Georgia Institute of Technology. She has over thirty years of human-centered systems engineering research and design experience in air transportation, health care, meteorology, and other domains. The focus of her research is to develop theories of human performance, quantitative modeling methodologies, and associated experimental designs that can be used to evaluate human-

automation interaction and human-human collaboration in the context of total system performance. The outcomes of this research can be used in the systems engineering process: to inform system requirements and procedures, display designs and training interventions, and support system evaluation. Dr. Bass's research contributions can be decomposed into four synergistic areas: 1) characterizing human judgment and decision making; 2) modeling human judgment when supported by information automation; 3) computational models of human-human and human-automation interaction; and 4) design and evaluation of interventions to improve human judgment and decision making. Since joining Drexel in 2013, Dr. Bass' research is funded by Agency for Healthcare Research and Quality (AHRQ), Department of Education, Department of Health and Human Services: Office of the National Coordinator for Health Information Technology (ONC), FAA, NASA, National Institute of Nursing Research, North Central Texas Council of Governments (NCTCOG), NSF, and US Navy.

The Provost's Office sets up guidelines for department heads evaluations. The college/school dean/director must review the performance of the department head in the fall term of the final contract-year review, if the contract is renewable. The final contract-year review may be conducted at an earlier time at the prerogative of the college/school dean/director, at the request of the provost or president (for COM), or in response to a faculty petition signed by at least 25% of the voting members of the department. The Performance Review Process (PRP) consists the following steps: 1) The Performance Review Committee (PRC) will determine its own review process and mode of operation for surveying the department faculty, students, and other appropriate constituents, following the established college/school guidelines, standard operating procedures, or bylaws. 2) The PRC should apply the evaluation criteria described in this policy, in Article VI. Each college/school and department may formulate additional criteria not contradicting this policy and corresponding with its particular needs, but should adhere to the general criteria specified herein. Such additional criteria should be approved by the respective voting members of the department and be publicly announced at least two years prior to the start of the performance review. 3) The PRC shall survey all full-time faculty members of the

department, other department faculty members, the department's professional staff members, the department's undergraduate and graduate student committees, and other appropriate constituents as deemed necessary by PRC. 4) The PRC shall maintain strict confidentiality regarding all the sources of information assembled and interviews conducted in the performance review process. The identity of all interviewees will be kept confidential under all circumstances. 5) Before preparing the final report, the PRC will review the findings with the Department Head and solicit her/his response. The department head may respond verbally or in writing within five working days. 6) At the conclusion of its review the PRC will submit its final written report to the college/school dean/director with a copy of the report to the department head. This report will include a description of the committee's mode of operation, the criteria used in conducting the review, its findings and recommendations, excluding all confidential information. 7) The PRC should submit its written report to the college/school dean/director within ninety days from the day of the committee's first meeting. 8) The department head may submit, within ten business days, her/his written response and comments on the PRC's report to the college/school dean/director.

The department head's roles mainly include the following tasks: 1) Strategic Planning; 2) Educational Programs and Assessment; 3) Management and Stewardship; 4) Faculty Recruitment, Retention & Advancement; 5) Scholarly Work, Research, & Creative Activity; and 6) Shared Governance, Collaboration, and Department's Culture. Detailed information can be found at the Provost's Office website: http://drexel.edu/provost/policies/department_heads_selection/

The department heads evaluate program directors: IS Department Head Dr. Bass evaluates MSLIS program director Dr. Agosto using the Faculty Evaluation Form. This evaluation is conducted annually in October to review faculty's performance in the previous academic year. The evaluation is consisted of three parts: teaching, research, and service. The Department Head weighs these parts differently based on faculty roles. For instance, as the MSLIS program director, Dr. Agosto's evaluation will have an emphasis on her leadership role in all key aspects

as the MSLIS director. The department head quantifies the evaluation result in a 5-point scale and submit it to the dean.

V.4 *The program's administrative head nurtures an environment that enhances the pursuit of the 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.*

Staff Awards

CCI Academic Advisors Alison Stoute, Haley Dervinis, Greta Kazenski, and Eric Kennedy are the recipients of Drexel's inaugural Innovation in Academic Advising Award, in recognition of their exceptional service to students and the University. Drexel University is committed to the development of new strategies adopted by academic advisors to raise the effectiveness and/or efficiency of academic advising and increasing student performance and success. This award recognizes the team's demonstrated results in improving advising practices through new technologies, processes, and administrative approaches.

College Assembly and Business Meeting

The College continues to hold business meetings following a College assembly. The first part is an information meeting for all faculty and staff, and the second part is a session for formal faculty business. The information part of the meetings represents the evolving state of the College and its affairs. In addition, individuals from across the University are invited to make brief presentations and respond to questions. One recent example includes Provost Blake's participation in the September 2016 College assembly. Minutes for the College Assembly are posted on the College's intranet. As can been seen in the minutes (see Appendix 5.1), the faculty has voted on curricular issues, the strategic plan, doctoral student status, etc.

V.5 *The program's administrative and other staff support the administrative head and faculty in the performance of their responsibilities. The staff contributes to the fulfillment of the program's*

mission, goals, and objectives. Within its institutional framework, decision-making processes are determined mutually by the administrative head and the faculty, who regularly evaluate these processes and use the results.

The current cadre of College administrators includes:

Dean: Yi Deng.

Senior Associate Dean for Academic Affairs: Gregory W. Hislop, twelve-month administrative appointment; primary responsibilities include general administration, student services, and marketing.

Senior Associate Dean of Research: Ali Shokoufandeh, twelve-month administrative appointment; primary responsibility is coordinating and facilitating research efforts.

Executive Director of Strategic Partnerships and Communications: Christopher Spangler, twelve-month, full-time; primary responsibilities marketing, communications, and social media.

Chief Operating Officer: Kathy Funk, twelve-month, full time; primary responsibilities are budget/finance, human resources, adherence to University policies/procedures (as they relate to HR, procurement, general accounting), and Institutional Research.

The ratio of faculty to staff is considered to be one of the most positive effects of the budgetary discretion flowing from the online education cost center. As of April 2017, the College has thirty-five staff members. The director of faculty support reports to the senior associate dean of research. The director of advising reports to the senior associate dean of academic affairs. The dean has six full-time direct reports: two senior associate deans, two department heads, executive director of strategic partnerships and communications, and the chief operating officer.

The current governance structure of the College can be described as a combination of shared faculty governance and strong administrative leadership (the relative proportions varying over time and in the perceptions of different faculty.) Faculty and senior staff participate in

governance activities through such traditional structures as committees and work groups (e.g. Curriculum Committee, PhD Committee, and Strategic Futures Committee). The dean holds bi-weekly meetings with his direct reports, and biweekly meetings with his leadership group that consists of the three associate deans, two department heads, executive director of strategic partnerships and communications, the chief operating officer, director of faculty support, director of recruitment, director of advising, and manager (director) of IT.

In the IS Department, two Associated Departments directly report to the Department Head. The Associate Department Head for Graduate Affairs is currently unfilled and Dr. Grillo serving as the interim as well as in the role of the Associate Department Head for Undergraduate Affairs. Additionally, there are seven program directors: BSCST Program Director-Dr. Carroll, Bachelor of Science in Data Science-Dr. An, BS in Information Systems-Dr. Rogers, MS HI Program Director-Dr. Yang, MS in Information Systems-Dr. Gasson, MS in Library and Information Science-Dr. Agosto, and PhD in Information Studies – Dr. Forte. Mr. Jewett is the administrative staff supporting meeting scheduling, minutes taking, space reservation, and other administrative support to the Department Head and committees.

V.6 *The parent institution provides continuing financial support for development, maintenance, and enhancement of 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 program's teaching, research, and service.*

University Financial Support

The University and the College has had budget cuts for the last two years (FY 2016 and 2017) and another cut for the upcoming year (FY 2018). These cuts are directly related to decreasing enrollments (graduate enrollment decline over the past several years and undergraduate enrollment the past two years). The cuts by the College have come in the form of not filling

positions when a faculty or staff member retires or finds a job elsewhere. Some necessary positions, however, have been created and filled (e.g., new advising line, new communications director) and salary increases were given each year between FY 2010 and FY 2016.

Faculty Start-Up Packages

The Provost's Office provides half of the start-up support for newly hired faculty, including moving expenses, initial technology purchases, summer salary for two years unless grant funding is obtained, hardware and software requirements, PhD students, etc. However, with the impending changes to the budget process (RCM), 100% may default to the College. The University provides replacement computers for faculty on a four-year rotation.

Some retired faculty members are replaced with new hires. When senior faculty leaves Drexel, the department has been successful to get new hires. For instance, Professor Emeritus McCain retired in 2014; a new hire Dr. Yan teaches her MSLIS courses. Dr. Davis retired in 2016; two new faculty member Drs. Richards and Poole who are also specialized in digital curation teach her courses. Dr. Stahl retired in 2014; a new faculty member Dr. Marcu who is also specialized in human-computer interaction teaches his courses. Professor Emeritus Neuman retired in 2016. Her position as the director of School Library Media Program was not replaced because this program was terminated in response to a policy change in Pennsylvania.

Research Assistance

Since the last self-study, the College's research funding has increased greatly with more than $3 million in expenditures per year; for FY2016, the total expenditure plus overhead is $3,942,000. However, funded research needs to increase to reflect the growth of faculty and to support doctoral students. Research assistants are typically supported by external grant funding and start up packages. There is some department and college support for PhD students as teaching assistants and PhD instructors of record. Research assistants for faculty recruited in the last three years have been available for up to two years. The expectation of research assistants for newly

recruited faculty has been that they will be replaced by externally funded research assistants after the first two years. In addition, the College received 30% of the indirect costs from grants, as mentioned earlier.

Teaching Load

The nominal teaching load for a teaching faculty member is 12 credits (four courses) per term. Teaching faculty members generally teach four courses per quarter. The typical course load assigned to tenure track faculty members before tenure review is one 3 credit lecture course per quarter during the academic year. In addition, these faculty are assigned lighter service loads as compared to the tenured faculty. These workload assignments provide time for the faculty to launch their research programs. For a typical tenured faculty member, the common expectation at the Department is that the equivalent of one section per term is devoted to service, and one section per term is devoted to scholarly activity. Thus the typical teaching load is two sections per term for a tenured faculty member. For all faculty, the number of new course preparations is considered in teaching and service assignments. The College also has a policy that allows faculty members with external funding to apply 1/12 of their academic year salary and fringes to research funding and thus reduce the annual teaching load by one section. However, faculty are expected to teach a minimum of 3 sections per academic year. One of Drexel University's advantages is low student-faculty ratios. On average each faculty member generally teaches fewer than 25 students per section.

Advising Support

The College has always prided itself on the quality of its student services, including a strong student advising program, particularly in the MSLIS program (see Chapter 4: Students). We now have a Director of Advising and six advisors. As noted above, the director of advising reports to the associate dean for academic affairs. The faculty is called upon to provide guidance related to careers and specific course selections related to professional goals. Information about identifying a faculty mentor can be found on the College's website at: http://drexel.edu/cci/contact/Advisors/

V.7 *Compensation for the program's 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.*

Salary and Benefits

Individual salaries at Drexel, except for the top officers and the top-earning members of the faculty, are confidential. Nine-month faculty serving as associate deans or department heads receive limited summer compensation, a reduced teaching load, and a monthly stipend.

Compensation and the Hiring Process

Thus far, our faculty salary offers seem to be competitive. We have been successful in hiring high quality faculty. Staff salaries are based on education level, experience, and level of responsibility. The Compensation Division of Human Resources reviews all job descriptions and gives an applicable range of salary.

The MSLIS program has attracted exceptional faculty in recent years. The program has secured a senior hire, Dr. Greenberg from UNC Chapel Hill. For junior-level hires, the program has hired four faculty members since 2013: Gabriela Marcu (specialization: human-computer interaction graduated from Carnegie Mellon University), Alex Poole (specialization: digital curation; graduated from UNC-CH), Lori Richards (specialization: digital curation; graduated from UNC-CH), and Erjia Yan (specialization: bibliometrics; graduated from Indiana University). The department receives hundreds of applications when open tenure track faculty positions are announced. Typically, three to four candidates are invited for onsite interviews. If the dean decides to move forward, an offer is made to one candidate. Recent tenure track hires have been of extremely high quality based on having graduated from the most prestigious doctoral programs of their respective research fields and their records at time of offer.

Tenure and Promotion

The University administration has placed increasing emphasis on funded research as a measure of scholarly activity. Efforts continue to be made to make clear that funded research and scholarship are important to tenure decisions and mid-term reviews. In the College, excellence in teaching is also very important for successful tenure cases.

Funded Projects by LIS faculty

Between 2011 and 2016, LIS faculty members have secured $4,060,998 in funding from thirty-nine projects to support their research, teaching, and outreach activities. Table 5.1 shows the details of these projects.

Table 5.1 Funded projects by LIS faculty

FY	CCI Faculty	PI/Co-PI	Sponsor	Title	Amount Awarded
16	GREENBERG, Jane	PI	CVDI	CVDI: Transforming Data Adaptation Science and Service: An Innovative Visual Ontology Application	$30,753
16	CHEN, Chaomei	PI	University of Pittsburgh	Doctoral Fellowships Supporting Research on Coherence at Scale	$50,000
16	Dalrymple, Pru	PI	JHU	Mid-Atlantic HIT Workforce Training for Health Care Professionals	$75,064
16	MARCU, Gabriela	PI	Phila FIGHT	Positively Connected for Health (PC4H)	$37,494
16	MARCU, Gabriela	PI	Drexel (Internal)	Lilypad: Comprehensive data management for decision-making in special education	$100,000
15	CHEN, Chaomei	PI	CVDI	CVDI: Multi-Level and Multi- Source Visual Analytics of Evidence-Based Knowledge Diffusion Processes	$78,000

15	KHOO, Mick	PI	ExCITe Center (Internal)	A Free Repository of Material Things: A Next-Generation Information Ecology for Drexel Researchers	$5,000
15	YAN, Erjia	PI	NCDS	Assessing the impact of data and software on science using hybrid metrics	$48,248
15	MARCU, Gabriela	PI	Drexel (Internal)	Designing an information system to support data-driven decision- making in RTI	$44,515
15	GREENBERG, Jane	PI	NSF	HIVE Supplement: Datanet	$8,490
15	CHEN, Chaomei	PI	Elsevier	Tracking Emerging Trends in Scientific Publications	$99,602
15	DALRYMPLE, Pru	PI	Jefferson (NSF Prime)	Decision Support for Participation in Breast Cancer Clinical Trial	$4,942
15	YAN, Erjia	PI	IMLS	Building an entity-based research framework to enhance digital services on knowledge discovery and delivery	$247,713
15	GREENBERG, Jane	PI	Duke University	ABI Development: Dryad: Scalable Sustainable Infrastructure for the Publication of Data	$267,088
14	UNSWORTH, Kristene	Co-PI	NSF	The Ethics of Algorithms	$150,000
14	CHEN, Chaomei	PI	CVDI	CVDI: Scalable Visualization, Gap Analytics and Link Prediction for Multiple Big Data Industry Sectors	$84,000
14	KHOO, Mick	PI	Drexel (Internal)	From 'Bug Data' to Big Data: Communities of Practice, Networks of Practice, an Information Systems at the Academy of Natural Sciences, Philadelphia	$13,000
14	CHEN, Chaomei	PI	Lockheed Martin	A Survey of Energy Market Pinpoints	$25,000

14	AGOSTO, Denise	PI	OCLC/ALISE	A New Role for Libraries: Promoting Teens' Safety and Security in the Digital Age	$15,000
14	TURNER, Deborah	PI	Drexel (Internal)	Turner Faculty Career Development	$5,992
14	PARK, Jung-ran	PI	IMLS	Positioning a new generation of cataloging	$498,773
14	TURNER, Deborah	PI	IMLS	The Oral Present, Urban Library Services	$294,537
13	GOGGINS, Sean	PI	Amazon	AWS in Education Coursework Grant	$5,000
13	GOGGINS, Sean	PI	NSF	Toward a Context Adaptive Theory of the Relationship Between Structural Fluidity and Virtual Organization Performance (VOSS)	$399,945
13	GOGGINS, Sean	PI	NSF	VOSS REU: Proposal for Involving Undergraduate Students in The Structural Fluidity & Performance in Virtual Organizations Project: fiscal year 2012	$15,000
13	CHEN, Chaomei	PI	CVDI	CVDI: Site Coordination for ULL CVDI Projects 1 and 5	$30,000
13	CHEN, Chaomei	PI	IMS Health	Large-Scale Multidimensional Exploratory Data Visualization	$164,999
13	ROGERS, Michelle	PI	Robert Wood Johnson Foundation	Examining the effectiveness of Episurveyor to enhance an mHealth intervention combatting childhood obesity in a US low- income urban setting.	$72,952
12	CHEN, Chaomei	PI	Pfizer (Non-competing renewal)	Pfizer-Drexel Collaboration on Chronological Network Analysis of Research Project Data	$65,580
12	CHEN, Chaomei	Co-PI	Drexel (Internal)	Jumpstart: Interdisciplinary Studies of the Impact of Information Diffusion on	$49,820

				Prescribing Behaviors:	
12	KHOO, Mick	PI	IMLS	Digging into Metadata	$124,855
12	LIN, Xia	PI	IMLS	Improving Search, Sesnsemaking	$413,378
12	LIN, Xia	PI	Astra Zeneca - SIEVE	Development of Visual Analytic Interfaces for RDF-based Clinical Data	$49,575
12	NEUMAN, Delia	Co-PI	City of Philadelphia,	Citywide Literacy Provider Census	$25,307
11	LIN, Xia	PI	IMLS	Exploring Common Tools for Meaningful Concept Displays (MCD)	$47,621
11	HU, Tony	PI	NSF	EAGER: Graph-Based Theoretical Models and Mining Algorithms for Bioinformatics Data Analysis	$150,000
11	CHEN, Chaomei	PI	Pfizer	Chronological network Analysis of Research Project Data	$40,534
11	GOGGINS, Sean	PI	Office of Naval Research	Towards Optimization of Macrocognitive Processes: Automating Analysis of the Emergence of Leadership	$218,221
11	ABELS, Eileen	PI	ALA	Infusing Innovation in Rural Libraries- An Annotated List of Electronic and Print Resources	$5,000
	Total Number of Awards		39	***Total Award Amount***	$4,060,998

V.8 *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.*

Overhead Rate

The current IDC (indirect cost or overhead) rate for the University is dependent on the type of research being performed and the location of the majority of the work being performed. For FY 2017, the rates are shown in Table 5.2 (PRED.: PREDETERMINED; PROV.: PROVISIONAL; IPA: Intergovernmental Personnel Act).

Table 5.2 Indirect Cost Rate

Type	From	To	Rate % Location	Applicable to
PRED.	07/01/2017	6/30/18	56.5 On-Campus	Organized Research
PRED.	07/01/2017	6/30/18	26 Off-Campus	Organized Research
PRED.	07/01/2017	6/30/18	43 On-Campus	Instruction
PRED.	07/01/2017	6/30/18	26 Off-Campus	Instruction
PRED.	07/01/2017	6/30/18	36 On-Campus	Other Sponsored Activities
PRED.	07/01/2017	6/30/18	26 Off-Campus	Other Sponsored Activities
PRED.	07/01/2017	6/30/18	8.50 Off-Campus	IPA (A)
PROV.	07/01/2018	Until Use		

Travel Support

The college provides outstanding support for faculty travel to conferences and other meetings that are not covered by other (external) funding for tenure-track, tenured, and teaching faculty. For FY 16 and FY17, the travel funds allocated at the department are provided by the College's budget and supplemented from the online cost center. Equal access to these funds is provided to all research-active and grant-active faculty. In allocating these funds, trips with clear faculty development value (e.g., making a presentation, or supporting a particular learning objective) get priority. For 2015-16, each faculty member has a budget for one trip up to $3,200 per academic year. Professional staff members who request travel funds for professional development generally receive the support for travel and other associated expenses. Starting FY 18, the College travel funding is now a travel award. This will be a competitive award for a maximum of $1500 per year to use toward conference travel. The number of awards will be determined by the availability of department funds. All applications for CCI travel award funding need to be

accompanied by justification for how the funding will be applied to support one's research or faculty teaching within the fields of Computing and Informatics.

Sabbatical Leave

The University has a formal, but competitive, sabbatical leave plan. A faculty member becomes eligible in the seventh year of appointment and seven years after the last sabbatical leave. A person on sabbatical receives two-thirds pay for three terms or full pay for two terms of leave. The person agrees to return to the University for a full academic year after the leave. Because tenured faculty have the opportunity to request a sabbatical leave every seven years, in general the Department allows a number based on the number of tenured faculty divided by seven per academic year to meet the scheduling needs of the College. Should more than requests be submitted than can be addressed, some requests may be deferred to the following academic year. The year deferred does not count against their clock for their next sabbatical leave.

Leaves with Pay

Staff is not eligible for paid leave but may use their accrued vacation time for leave. Staff accrues vacation leave based on their employment date with a range of 15-20 days per year. The University adheres to the Family and Medical Leave Policy that allows employees to take unpaid leave for certain family and medical reasons. This policy can be found on the website at **http://www.drexel.edu/hr/policies/DU-HR33.htm.**

Student Financial Aid

Details related to the availability of financial aid for students are discussed in Chapter 4: Students. Online master's degree students, with a partnership agreement employer, are eligible for discounts up to 25%. The Level 1 Dean's Fellowship reduces tuition by $250 reduction per graduate credit and the Level 2 Dean's fellowship reduces tuition by $200 per graduate credit. The recipients are chosen by the Admissions Committee based on GPA. In addition to the University level support, the College has initiated a new program called the Dean's Fellowship

for online part-time students and for the Level 1 GPA (more than 3.7 on a 4 point scale). The discount for full-time and part-time Level 1 students is the same. It is intended for all full-time students who have a change in their lives, which otherwise would prevent them from continuing their education full-time, and for high-quality part-time students who generally have outside obligations and cannot attend full-time. The limitation to online is solely because the source of funding is the online education cost center, a fund that operates at the discretion of the College.

V.9 *The program has access to physical and technological resources that allow it to accomplish its objectives in the areas of teaching, research and service. The program provides support services for teaching and learning regardless of instructional delivery modality.*

The Rush Building

The Rush Building houses the offices of the department's faculty, professional staff, and administration, as well as most of the classrooms, computing facilities, and computer laboratories in which the department's courses are taught. Classes are occasionally scheduled in other classrooms and computing laboratories within the University. For the most part, the physical facilities available to the College are sufficient to the accomplishment of the department's objectives. In addition, some faculty members and PhD students have been moved to the University City Science Center Building — located at 3401 Market St., approximately a block from the Rush Building — and additional office space is being sought. The faculty wish to keep as many classes and offices as possible in the Rush Building since the self-contained nature of the Rush Building quarters fosters a sense of community and ownership among faculty, students, professional staff, and alumni. (A set of building schematics is available in Appendix 5.8.)

Science Center

3401 Market Street houses faculty offices and doctoral student workspaces. It also is home to College and University research initiatives, such as the Isaac L. Auerbach Cybersecurity Institute.

The Institute serves as University's first training facility dedicated to identifying challenges and discovering solutions in the areas of cyber infrastructure protection and incident response. (A set of building schematics is available in Appendix 5.9.)

Washington, DC Office

Opened in May 2013, the Drexel University-Washington, DC Center serves as a multifunctional academic and outreach center for the University, CCI, and its online subsidiary, Drexel University Online. The Drexel University-Washington, DC Center is located in the Lafayette Tower at 801 17th Street, N.W.

Faculty Offices

Each full-time faculty member has a private office in the Rush Building or the Science Center. Typical office space is over 100 square feet, although a few are smaller, and some are larger — due to the architecture of the old building. Offices for full-time faculty, adjunct, teaching faculty, emeritus professors, and graduate assistants have spread during the past few years and now occupy space on all floors of the building. Administrative and staff offices are on the third floor, with the exception of the offices of the Information Technology Manager and staff, which are on the first floor in Room 106. Basic faculty office facilities include a desk and a few chairs, file cabinets, substantial shelf space, and ports for data and voice access.

As the faculty has grown over the past few years, the department has made considerable effort to maintain the quality of faculty office space. A main goal has been to keep the faculty together as much as possible to foster the level of interaction we feel is essential for a multi-disciplinary department. However, as a result of considerable growth over the past several years, the Rush Building is no longer large enough to accommodate its population. Faculty offices are the most pressing problem, as well as the need for research laboratories and better classrooms. In a recent survey conducted in February 2017 regarding faculty satisfaction of facilities and services, the faculty provided relatively low ratings for space: 2.84/5 for collaborative space and 3.16 for

meeting space. More discussions on this survey can be located in the section "Faculty satisfaction survey on physical and technological resources".

Facilities, The College of Computing & Informatics

Computing services at the College of Computing & Informatics, (CCI) support general administrative and service functions, classroom instruction and student work, and faculty teaching and research. CCI has faculty and administrative offices, research laboratories, and outreach centers in several locations:

- *Rush Building*: The Rush Building houses on campus classes, CCI administrative offices (academic advising, admissions, faculty, etc.) and the iCommons computer lab which is used for general access computing by only CCI students.
- *University Crossings*: CCI also has on campus classrooms, administrative offices and faculty offices at University Crossings 100. Our University Crossings location also is home to several research laboratories. In addition, the iCommons computer lab offers general access computing facility and tutoring support for students.
- *3401 Market Street:* 3401 Market Street houses faculty offices, collaborative graduate student workspaces, and research centers, such as the Cybersecurity Institute.
- *Drexel University-Washington, DC Center*: Opened in May 2013, Drexel University's Washington, DC Center serves as a multifunctional academic and outreach center for the University, CCI, and its online subsidiary, Drexel University Online.

Computer Support for Teaching

The iCommons server room houses Linux, Oracle, Microsoft, Faculty Research Servers and a range of additional hardware and appropriate software for student use, all connected via an Ethernet Network. CCI has also equipped all classrooms with podiums containing PCs connected to the College network with high-resolution data projectors as well as classroom capture hardware and software. Classrooms are currently configured as "lab capable", supporting the use

of laptops connected via Wi-Fi and electrical outlets in the furniture for charging. Laptops can be borrowed by students from the iCommons or they can use their own. In addition, one classroom used for server and networking courses is outfitted with high-powered workstations for student use that is hidden in the furniture via pop up monitor modules and secure rack cabinets. This allows for laptop usage in the lab as well.

CCI is also hosting an instance of Apache VCL. This is a Virtual Computing Lab (VCL) environment for students to use that mimics the physical computer labs in CCI. This allows both online and face-to-face students to have the same experience when using computing facilities.

Each online student is assigned with a designated academic advisor based on his or her last name. Advisors provide different means to communicate with online students: e-mails, phone conversations, and face-to-face appointments if students live close to campus. Advisors also monitor students' course registrations, sending notifications to students if they do not sign up for classes on time, if they fail to meet certain pre-requisites for class, or if new courses may be of potential interest to students. Advisors also are in charge of communicating with students when they fail to meet the performance expectations of their classes. Advisors work with course instructors in handling students' performance issues. Beginning in fall 2016, all students have access to Blackboard course shells one week before terms start. This gives students, particularly online students, one extra week to get familiarized with course materials and to make drop/add course decisions. Advisors also work in collaboration with the Steinbright Career Development Center to provide career consulting services.

Computing Support for Research — General Faculty Support

Each faculty member is equipped with at least one workstation or laptop of his or her choice. An office facility is available for faculty and graduate research assistant use, containing PC workstations. All workstations are networked via Ethernet. The University and College hold licenses for a range of research-related software, including standard statistical packages, Web-

authoring tools, usability testing software, and various graphics software. A faculty technology list is available in Appendix 5.6 and a software list is available in Appendix 5.7.

Computing Support for Research-Dedicated Facilities

The College houses a research facility with substantial computing power. The Usability Laboratory contains six PCs, a Panasonic front-projection unit, and a two-way mirror for observation of participants in experiments. This provides an excellent facility in which to verify the usability of systems developed in research or classroom projects. The Auerbach and Berger Families Cybersecurity Laboratory provides an environment in which users can interact with various technologies, such as virtual machines in the cloud, to perform various attack/defend scenarios as well as other cybersecurity testing and research. Utilizing the CCI Open Stack cloud, users can build their own servers for a variety of tasks, including research purposes.

Connectivity

The entire College building is Ethernet networked with a Gigabit capacity. Drexel is also a wireless campus with each building containing multiple transceivers. Students and faculty have full laptop wireless access to the entire range of University services any place, and any time. Drexel makes use of the Internet2 connection which allows for 10GB connectivity providing extremely fast external connections and rapid transfer of very large files. This allows for researchers to collaborate across great distances as if they were in the same area.

Drexel Cloud is based on Open Stack, a cloud operating system that controls large pools of computing, storage, and networking resources throughout a data center, all managed through a dashboard that gives administrators control while empowering their users to provision resources through a web interface. Drexel continues to invest in the cloud, adding more cores, storage and memory at every opportunity. Additional resources are easy to add and researchers can contribute to this expansion with their research funding. The current capacity of the system includes:

- 1024 CPU cores
- 4.1 TB of memory
- Over 100TB of usable disk space.

Classrooms

Each of the department's classrooms used for lecture or seminar style courses has a podium containing a networked PC and combination DVD/VCR. These are connected to a ceiling-mounted projector and are equipped to record the classes for later playback via Echo 360, an automated lecture-capture system. The recorded lectures are made available on Blackboard shells for both online and face-to-face sections of the course. The podiums also accommodate PC or Mac laptops, should the instructor wish to project from a different system. The classrooms also have audio uplift systems (ceiling-mounted speakers) to ensure students can hear, which is especially helpful in rooms with odd angles. Additional equipment (laptops, portable projectors, and document cameras/overhead projectors on carts) also is available via the iCommons. This additional equipment provides backup for the classroom equipment and can also be used when a class has some need to meet in another area of the building. Almost all classrooms are equipped with whiteboards, and the building's remaining blackboards are being replaced. There are smart boards in the conference rooms on the third floor, fourth floor, and in the iCommons. Room 014 is fully capable of high-end video conferencing via Polycom. In addition, there is a mobile Polycom cart that can be wheeled into any room and used for high-end video conferencing.

In 2013, CCI redesigned its Information Technology Laboratory (Room 205 in the Rush Building) in support of the undergraduate degree program in information technology. This lab consists of enterprise class information technology hardware that students would encounter in industry positions. The hardware includes twenty high-powered workstations that are available to students and specialized networking lab simulation software. The hardware is networked and reconfigurable utilizing multiple virtual technologies as needed for the various classes the laboratory supports. In addition, a special system has been built into the classroom to allow for

conversion into a standard laptop computing lab utilizing motorized monitor lifts that allow the monitors and keyboards to recess into the desk.

All rooms have a web camera and microphone for web-based video interaction. Other rooms with additional equipment include Rush 006 and 205. Room 006 has twenty-six student computing stations and a podium PC. Room 205 houses a server rack with twelve servers and Cisco networking equipment, in addition to twenty-one PCs, and one at the podium. The following link provides detail on some classrooms: **http://drexel.edu/cci/about/our-facilities/rush-building/classrooms/**

Hagerty Library

The W.W. Hagerty Library holds an extensive collection of materials for all major fields in library and information science and information systems. The library houses nearly a half-million books, periodicals, microforms, and non print materials. Its strengths include technology, pure science, business, design, nutrition, and information science. The social sciences, architecture, fine arts, and general literature are also represented in the collection.

The Library's web-based information system allows users to access materials and online databases, electronic journals, and information resources worldwide. The Library continues to be a leader in offering Internet accessible databases. Detailed serviced provided by Drexel Libraries can be located in V.11.

Faculty Satisfaction Survey on Physical and Technological Resources

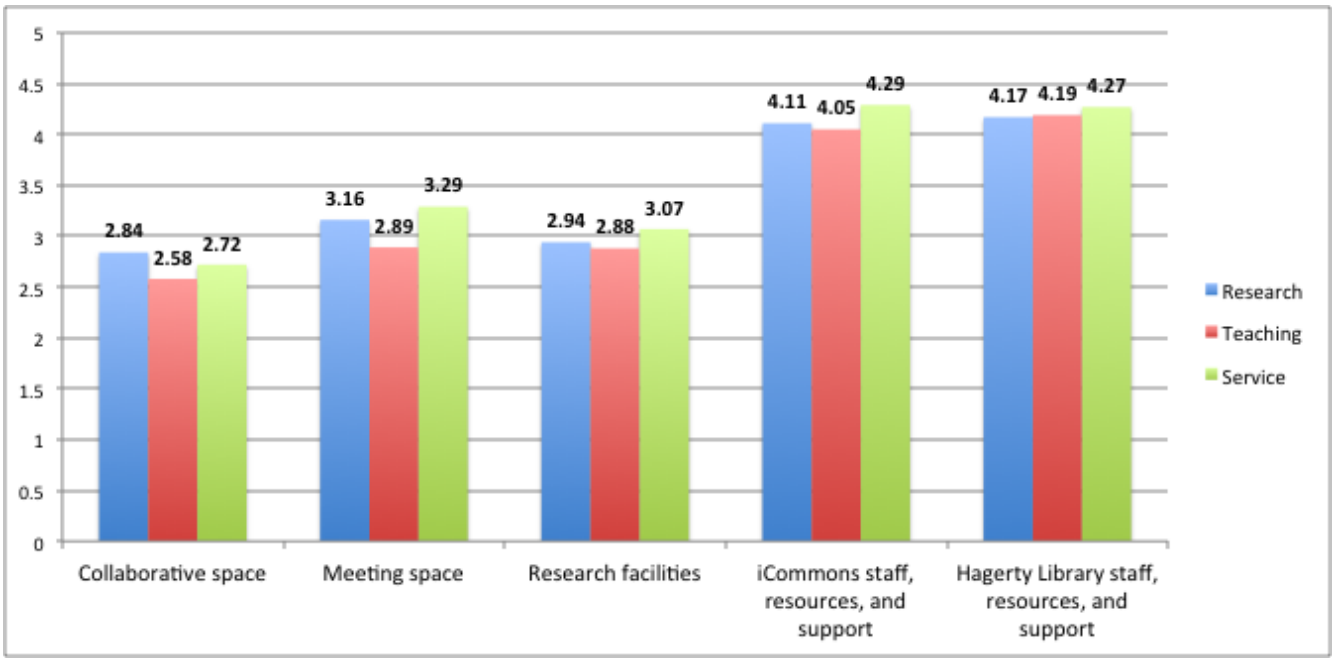
In February 2017, the Department of Information Science at CCI conducted a survey on the faculty's satisfaction of facilities and resources in the aspects of support for research, teaching, and service. In total, there were twenty-one responses. Based on the obtained data, while faculty at the department rated relatively low in physical spaces (2.5~3.3 on a 5-point scale where a 5-rating is excellent and a 1-rating is poor), they provided higher ratings for professional staff,

resources, and support (above 4). The weighted average rating for the surveyed five dimensions are shown in Table 5.3 and visualized in Figure 5.2.

Table 5.3 Faculty satisfaction survey results

	Research	Teaching	Service
Collaborative space	2.84	2.58	2.72
Meeting space	3.16	2.89	3.29
Research facilities	2.94	2.88	3.07
iCommons staff, resources, and support	4.11	4.05	4.29
Hagerty Library staff, resources, and support	4.17	4.19	4.27

Figure 5.2. Faculty Satisfaction Survey Results (Visualization).



Also in this survey, 80% of the faculty reported that they do not routinely seek and use resources housed in or licensed by non-Drexel resources for research, and 70% of the faculty reported that they do not use external resources for teaching. In reference to IT resources (e.g., software and staff expertise), the majority of the faculty responded that they only use CCI-supplied or licensed

IT resources (63%) or use other IT resources supplied or licensed by Drexel (16%) for research. As for teaching, the numbers are 63% and 26%, respectively. The survey results show that faculty are dependent on CCI or Drexel resources and that those resources are sufficient for the faculty's research and teaching most of the time.

The faculty 's open comments supported the survey statistics in that faculty feel satisfied with the service and resources but less satisfied with the physical spaces. For instance, one faculty member stated, "We tend to have excellent people supporting us, but insufficient space to meet our needs." Another faculty member stated, "Perhaps CCI needs more spaces for research, teaching, and services." The survey results show that the collaborative space and meeting space are the facilities that need to be improved in the coming years. This need to improve the physical space of the College has been recognized by the Strategic Planning Committee: "Unify the College in a single building with adequate space for modern research laboratories, faculty and student workspaces, and dedicated collaborative spaces will better support research and teaching while strengthening the social fabric of the College. Increase opportunities for socialization, collaboration, and exploration by creating social sandboxes where people regularly interact, get to know each other, and learn others' organizational norms."

V.10 *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 program.*

Rush Classrooms

Both Rooms 006 and 009 are laptop labs, and 205 is a computer lab. Room 205 has multiple blade servers interconnected with a network of Cisco gear.

All standard classrooms have ceiling mounted projectors that are connected to a podium desktop PC and each projector can be connected to a laptop.

Table 5.4 Room equipment at Rush Building

Room 006 Type: Laptop Lab Size: 23' x 12' Seats: 30	Room 009 Type: Laptop Lab Size: 18' x 12' Seats: 30	Room 014 Type: Lecture Size: 23' x 13' Seats: 30
Room 205 Type: Computer Lab Size: 23' x 13' Seats: 25 (at computers)	Room 209 Type: Standard Classroom Size: 17' x 13' Seats: 36	Room 213 Type: Standard Classroom Size: 20' x 14' Seats: 25

University Crossing Classrooms

CCI also has on campus classrooms, administrative offices and faculty offices at University Crossings 100, located at the corner of John F. Kennedy Boulevard and Market Streets. The building houses a student computer lab (featuring workstations and laptop plug-in stations, arranged in pods, to encourage collaboration among CCI students), as well as several classrooms with video-conference-enabled technology and media projection capabilities. Its Cyber Learning Center provides consulting and other learning resources for students taking computer science classes within the College. University Crossings also is home to several of the College's research groups and laboratories.

One Drexel Plaza

One Drexel Plaza houses faculty offices and on-campus classes via the Computing & Security Technology program.

Communications Across Buildings

Despite the geographical separation of working spaces, the College has made a keen effort to ensure a cohesive experience for faculty and students. First, College administrators' offices are all housed on the third floor of the Rush Building, including the dean's office, associated dean's offices, and senior staff members' offices. Second, the iCommons, located in the Rush Building,

serves as a centralized learning environment for both computer science and information science students. Third, all key IT staff members' offices are merged into the Rush Building. Fourth, the College's intranet system, mailing list, marketing materials, travel management, and proposal management are fully integrated between the two departments and are centrally administered. Fifth, all academic advisors' offices are located in the Rush Building and the sign-up system at the front desk provides a streamlined experience for students to meet with their advisors.

V.11 *Instructional and research facilities and services for meeting the needs of students and faculty include access to information resources and services, computer and other information technologies, accommodations for independent study, and media production facilities.*

Drexel University Libraries

Four physical library sites support the teaching and research needs of Drexel University. The W. W. Hagerty Library is the University City Campus library, located approximately one block from the College of Computing & Informatics (CCI). It is the primary site through which students access physical resources in support of CCI's teaching, learning, and research. In addition, there are two health science libraries, Hahnemann Library (located in Center City), and Queen Lane Library (located on the Queen Lane medical campus). These three libraries plus the Library Learning Terrace, a self-directed learning environment near the first-year student dorms, comprise the Drexel University Libraries, under the direction of Dean Danuta A. Nitecki (Drexel MLS '72, PhD). The Thomas R. Kline School of Law maintains its own independent Legal Research Center in the building adjoining the University City Campus library. Though CCI students and faculty utilize the services of these libraries, they primarily access library services virtually through the library website (**www.library.drexel.edu**). Archives and special collections elsewhere on campus include the Academy of Natural Sciences and the College of Medicine Legacy Center.

Library as a Place

The Libraries have an on-site collection of approximately 424,000 physical volumes, with estimates that 10% represent call-number ranges most relevant to CCI research and curriculum interests. These represent classifications for broad subjects of library and information science, juvenile literature, information technology management, computer networks, systems and software. As members of a research university, students and faculty in CCI have total access to the full range of collections maintained by the Libraries in other disciplines, and especially utilize those in social science, health sciences, law, humanities, business, and engineering. Some of these materials are housed in the health sciences and law libraries, which are open to the campus community, though with occasional restrictions during study periods in the Law School. Physical collections also are housed in a remotely located shelving area from which library staff will retrieve and deliver requested materials for pick up at any physical library.

In addition to the onsite collections, there is individual seating (1,174) for study at tables, carrels, and within lounging arrangements, as well as 239 additional seats in forty-three group study rooms and classrooms. Restricted access is managed by a building security guard and through use of turnstiles or card access at all locations.

There are ninety-eight desktop computers on-site (plus eighty-seven in three electronic classrooms, where they are available for instruction and individual use); 107 laptop computers, networked and equipped with a variety of software programs, may be checked out for use within the Libraries. Print stations, photocopiers/scanners, desktop high-resolution scanners, and assistive technologies are available as well. Wireless Internet connection is available throughout the buildings (as well as elsewhere on campus). The Hagerty Library is open 113 hours per week and all Libraries' locations feature designated 24/7 spaces. Research assistance offers support for on-site users, as well as remote users via phone and instant-message service Monday through Thursday (9 a.m.-7 p.m.) and Sunday (3 p.m. -7 p.m.) for a total of forty-four hours per week. In addition, an increasing amount of on-demand support is offered by way of virtual meeting platforms, such as Skype, BBLearn Collaborate, and Zoom.

Managing Access to Information Resources

The value of a library to the academic enterprise is no longer limited to what it houses in a physical space. Drexel University Libraries recognizes the importance of serving constituents' information needs by ensuring access to electronic resources. The Libraries continue to expand their offerings of online resources. Collection development has expanded from making decisions about which physical materials to select and where to house them, to also evaluating access to resources owned elsewhere for potential use, quality of content, and ease of navigation. Fiscal decisions are more complex, requiring comparisons of different vendor and consortia bundling of titles and negotiating contracts for best prices. Decisions to remove titles are now less often driven by space concerns as they are by affordability and the library's ability to meet inflationary costs of continuations of core resources.

The Libraries' internal-funds allocation for information resources for CCI for FY 2016 and FY 2017 were stable, at $145,000 per year. Just over 55% is spent on electronic resources such as full-text journal and abstract & index databases; 43% is spent on journals, all electronic. The remaining funds are spent on monographs through liaison librarian selection, an approval plan, and a demand-driven e-book plan with Gobi/YBP Library Services. This budget is augmented by expenditures from the Libraries' general collections budget for interdisciplinary resources, for resources such as Elsevier's Freedom Collection package of electronic journals and eBrary's Academic Library Complete collection of electronic books.

Table 5.5. Examples of Resources Purchased.

Examples of resources purchased with funds allocated to CCI
ACM Digital Library
Books 24x7 IT Pro Collection
Children's Literature Comprehensive Database
Children's Literature in Education
Choice Reviews Online
Emerald Journals Online

Encyclopedia of Library & Information Science
IGI Info Sci-Global (e-books and journals)
Lecture Notes in Computer Science
Library, Library & Information Abstracts and full text
Library Literature and Information Science Retrospective
Library, Information Science & Technology Abstracts [LISTA]
Faulkner Advisory for IT Studies
Faulkner Security Management Practices

Table 5.5. Examples of Resources Purchased (General Collection).

Examples of resources purchased with general collections allocations supporting CCI
Academic Video Online
Access Science
Book Review Index Online
Ebrary's Academic Library Complete
Ebrary University Press
EbscoHost Education Research Complete
Elsevier SD Freedom Collection (journals)
Engineering Village
Gale AcademicOneFile
IEEE Xplore
JSTOR Arts & Sciences, I-VIII and Life Sciences
JSTOR eBooks: backlist
ProQuest Research Library
Sage Research Methods Online
Ulrich's Web
Web of Science

Resource Support

Although requiring different skills and knowledge of scholarly communication, librarians continue to apply their subject expertise and knowledge of campus curriculum and research in delivering the Libraries' core mission of being effective buyers and ensuring portal access to

information resources. For CCI, most of this work is the responsibility of a seasoned full-time liaison librarian, Tim Siftar (Drexel MSLIS, MSIS), who serves as liaison to both CCI and the School of Education. Other specialists with close ties to the College include specialists in Engineering, Life Sciences, Earth Science and Environment, Business, Media Arts, Medicine, Health Sciences, Law, Careers, Humanities, Social Sciences, and Public Health. Faculty members can submit requests for book purchases or for journal or database subscriptions directly to the liaison librarian and their requests are given high priority in acquiring materials. Selection decisions are made by the liaison librarian (for books) and after broader review in consultation with other liaison librarians and the library collection manager for resources that incur recurring, annual expense.

Circulation services and interlibrary resource sharing arrangements complement the Libraries' acquired access to physical and electronic resources. Managing access to physical collections for convenient shared use, especially through reserve services in support of student reading assignments, is a popular service activity. In Winter Quarter 2017, sixteen CCI courses actively utilized electronic reserves. Faculty and students can access the Libraries' subscription electronic resources remotely, 24 hours a day, 365 days a year, by way of a proxy server. All that is required for access is the patron's name and University identification and password. The Libraries' online catalog may also be accessed remotely (login is not required). Articles from journals not available in any format at the library may be requested from other libraries, free of charge, via the Libraries' interlibrary loan service.

Table 5.6. CCI's Borrowing From Other Libraries.

CCI's borrowing from other libraries		
Year	CCI Borrows	(LC Class)
2014	883	~30 Z's
2015	543	~20 Z's
2016	1,024	~25 Z's

Library Resources and Technologies for Online Students

Because most students in the MSLIS program are online students, it is important to make sure the needs of online students are met for library resources and technologies. For all MSLIS Blackboard course shells, there is a designated link at the home page that points to course e-reserves at Drexel Libraries. This ensures that online students have access to journal articles, book chapters, and other course readings. After course instructors scan required book chapters and submit them to the e-reserve, Drexel Libraries staff will review these scanned materials and make sure all materials are legible. E-reverse materials are accessible to students throughout the whole term. Another link at the home page of each Blackboard course shell is the "Technical support" link (**https://docs.cci.drexel.edu/display/CD/Technical+Support**). It includes a variety of Q&A for any questions students may encounter when interacting with course shells.

The Drexel University Libraries provide services to Drexel's online learning community equivalent to those available on the physical campuses. To request print material within Drexel University Libraries' collection, online students can use the Request Item option in the Library Catalog and select Distance Education Delivery as the pick-up location. Print materials from Drexel University Libraries or through EZ Borrow or ILLiad, will be mailed to students' home addresses. Students can renew books online through My Library Record or ILLiad.

The College in recent years has implemented a number of hybrid online/on-campus courses. These courses are designed to meet the needs of both online and face-to-face students. For online students, they will be able to participate in live broadcasts or review course recordings through echo360. Most CCI lectures taught in CCI classrooms are recorded by default and made available via a "Class Capture" or "echo360 Class Recordings" link in the corresponding Blackboard Learn course shell. Echo360 is the system that lets us record and live broadcast/stream in CCI classrooms, which are:

- Rush 006, 009, 014, 205, 209, 213

- University Crossings 149, 151, 153
- Science Center 326

Echo360 recordings can be watched online or downloaded for offline viewing. Audio and video of the physical CCI classroom, in addition to video of the computer display from the podium computer or a connected laptop are captured. The CCI classroom video camera is normally focused on the front of the room, specifically the podium and just in front of the front screen or a dry erase board, but most CCI classrooms now allow this to be easily changed.

Faculty and Student Use of Non-Drexel Libraries

College faculty and students occasionally use other regional libraries for coursework and research. There is a reciprocal borrowing arrangement for faculty and graduate students between Drexel and the University of Pennsylvania, and many CCI faculty use the University of Pennsylvania Libraries to support their teaching and research, borrowing books that Drexel Libraries do not own and scanning articles from journals to which Drexel Libraries do not subscribe.

Persons who work or attend school in Philadelphia may apply for library cards at the Free Library of Philadelphia. For some CCI courses, these connections are important as supplementary sources for material that Drexel has not collected in depth. All students and faculty also may use, free of charge, the EZ-Borrow service from PALCI (Pennsylvania Academic Library Consortium, Inc), a borrow-direct service that allows patrons to borrow books from more than sixty other academic libraries in Pennsylvania and surrounding states. This service provides a speedier alternative to interlibrary loan, with turnaround time of five to seven business days, and greatly expands the universe of materials to which students and the faculty have access.

Partnering for Learning and Research

The CCI liaison librarian typically guest teaches one or more research instruction class session per term for CCI students at all levels. Most of the classes take place at the undergraduate level, but at the graduate level, there are three to four brief orientation presentations lasting five to ten minutes for new students at the start of each term. In addition, the CCI liaison librarian makes guest appearances as requested in graduate courses such as INFO 648 about special resources on such topics as the health sciences databases, the Web of Science, or citation management software. In addition, custom research instruction tutorials are recorded for asynchronous use as requested by faculty and staff on using specific research tools. A set of shorter tutorials also is available from the library as a general introduction to research methods.

The CCI liaison librarian also maintains electronic library guides on the following topics: Archives Studies, Health Informatics, Human-Computer Interaction, Information Retrieval, Computer Science, and/or Library Science. The CCI liaison librarian attends faculty administrative and research meetings, is familiar with the research agenda of each faculty member and participates in the life of the College through committee service.

Research consultations for faculty tend to occur several times per week, whereas reference or research consultations with students and CCI support staff occur several times per day via e-mail, phone, IM, or scheduled or walk-in sessions. On a volunteer basis, the CCI liaison librarian advises the officially recognized graduate student club that consists of the combined student chapters of SLA, ALA, and SAA. He assists in guiding the officers through the campus club recognition process, recruits new students for the chapters and finds guest speakers for chapter events. Speaker presentations are typically live streamed during evening hours as well as recorded to encourage the inclusion of online students. Student chapter tours also are recorded for sharing online by way of the student club Facebook group.

CCI's concentration in Archival Studies offers yet another partnership opportunity between the Libraries and the College. Students can tour the University Archives in INFO 560 (Introduction to Archives I) in person if they are on campus, or virtually if they are online. Faculty and

professional staff have created assignments for the advanced access and appraisal courses (INFO 750 and 751) that utilize collections in both the University Archives and the Drexel University College of Medicine.

The dean of libraries also is a tenured full professor in the College's Information Science Department. She participates in promotion and tenure review, and faculty discussions, and served as a PhD advisor for a student who graduated in 2015.

Korman Center/Information Technology

Drexel University Information Technology provides university-wide instructional, administrative, and research services using its robust computing and communications infrastructure. It is comprised of three main departments and a business office managed by Arlene Anderson, director of business operations.

Core Enterprise Systems (CES)

Core Enterprise Systems (CES) manages the systems that make Drexel work behind the scenes. This group is charged with the maintenance, enhancement, integrity, and security of all centralized, mission-critical business applications required to manage the University's assets, including finance, human resources, and students. The group must work closely with the owners of the various information systems to provide required support as well as extend and enhance functionality. The role of the associate vice president (AVP) is to provide supervision, management, and technical expertise in order to create an environment in which transactions can be easily and efficiently processed with resultant management and decision support information provided for departmental and senior University officers. The AVP is also responsible for ensuring that cross-system integration processes are in place and that technical problems associated with applications are quickly resolved.

Core Technology Infrastructure (CTI))

This group maintains a stable level of service and provides a consultative role to integrate the myriad technology components within the University. The result is greater economies of scale and steady, controlled progress in the areas of server support and networking. The AVP's primary focus is on the planning and coordination of strategic projects involving network communications and server support. Duties include providing the leadership to integrate any technologies proposed by departmental and research groups into the overall campus computing and telecommunications architecture. Administrative duties include oversight of the daily operation of the group as well as pursuing externally funded projects.

Instructional Technology Support (ITS)

The department's focus is primarily on the support of "teaching" side (including faculty and student support services) of the "teaching and learning" paradigm. Responsibilities of the AVP focus on the maintenance of close contact with the academic community, serving as the computing and technology representative on various University and faculty committees, initiating and supporting collaborative teaching and learning initiatives among faculty, departments, and colleges as well as the Libraries. Other duties include serving as Drexel's representative to external bodies especially in relation to academic computing (e.g., Educause) and other external constituencies that the institution has (or should have) instructional-computing-centered relationships (e.g., the Philadelphia School District, international programs, satellite campuses, etc.). The AVP's responsibilities also include initiating and sustaining programs with external agencies such as use of computing facilities by outside agencies, the provision of commercial training, technical support contracts and the aggressive pursuit of grants from foundations and government agencies.

Washington, DC Office

Facilities include hoteled office space, meeting and conference room, a video capture location with videoconferencing capabilities, and a small green screen studio suited to filming interviews or video content for online courses. Offices can be utilized as short-term individual work areas

during a conference or small meeting spaces. CCI has hosted catered receptions and networking events in our lobby and conference space, roundtable discussion groups, and informational lectures. Our roof deck can also be used for meals and receptions.

Office Space:

- 1 Open Office: large enough for one faculty or staff member to meet with two others.
- 2 Open Desks: suitable for visiting faculty and staff.

Common Space:

- Small Meeting Room: suitable for a meeting of up to six people.
- Conference Room: configurable in a variety of setups including *small pods* (16-24 people), *roundtable* (16-22 people), and *theater* (35 people).
- Lobby: suitable for reception events of up to 70 people (when also utilizing the conference room).
- Roof Deck: shared space with other tenants of the building overlooking the White House and a great view of downtown Washington, DC. Seating for 24, standing room for 100.

V.12 *The staff and the services provided for the program by libraries, media centers, and information technology units, as well as all other support facilities, are appropriate for the level of use required and specialized to the extent needed. These services are delivered by knowledgeable staff, convenient, accessible to people with disabilities, and are available when needed.*

Library Staffing

Drexel University Libraries employs fifty-four professional staff, in addition to student workers and library graduate assistants. Nine information services librarians serve as subject liaisons to their respective schools and colleges. A full-time librarian with a master of science in library and information science from an accredited program, serves as subject liaison to the College and to

the School of Education. The subject librarian provides specialized reference support to CCI faculty and students, offers customized instruction for the department's classes or individual students, develops and maintains the book collection, advocates for electronic resources that serve the College, responds to faculty requests for materials, and serves as an overall point person for the department's faculty and students.

The College IT Support Staff

The College has an excellent professional staff of seven highly trained, full-time technical support people, plus student assistants (SAs). These individuals provide all the technical support for the College including the College systems, faculty support, and student support. As stated earlier, faculty rated iCommons support and facilities as good to excellent for research and teaching, with almost half the responses falling in the excellent category. The iCommons staff sets up equipment before a class and turns it off or retrieves it after the class has ended. The iCommons staff also is responsible for supporting the computer equipment throughout the Rush Building. The full-time staff members are primarily focused on the College hardware, software, and networks. This includes general infrastructure (web servers, file servers, network connections); control of hardware and software for open labs, closed labs, and classrooms; College application systems; and administration for online courses. The staff also supports research initiatives. Two full-time positions provide technical expertise for Blackboard support and training. The student assistants' tasks include working on maintaining and supporting the lab and classroom systems under direction of the full-time professional staff. The SA's also provide technical support to students, faculty, and professional staff.

ADA Compliance of Facilities and Educational Services

Nearly all of the student-access areas within the Rush Building are ADA compliant. There is a ramp in the back of the building for wheelchair access, as well as an elevator with access to all levels of the building. All of the bathrooms also are ADA-compliant, except for one of the men's bathrooms on the first floor. Moreover, most of the furniture in the classrooms and in the

iCommons can also be moved to accommodate wheelchairs and other assistive equipment. In addition to Rush Building facilities accommodations for persons with disabilities, the Drexel Office of Disability Services (ODS) works to provide all Drexel students with disabilities an equal opportunity for access to University employment, courses, programs, facilities, services, and activities. The ODS works with Drexel instructors to make course lectures, readings, and other components accessible to students with special needs, such as securing sign language interpreters for hearing impaired students and converting course materials to accessible formats. The fact that almost all courses are available online contributes to this accessibility. (**http://www.drexel.edu/disability/index.html**)

V.13 *The program's systematic planning and evaluation process includes review of its administrative policies, its fiscal and support policies, and its resource requirements. The program regularly reviews the adequacy of access to physical resources and facilities for the delivery of face-to-face instruction and access to the technologies and support services for the delivery of online education. Within applicable institutional policies, faculty, staff, students, and others are involved in the evaluation process.*

Procedures

The College Bylaws specify the planning and evaluation of all degree programs within the College that include the MSLIS program. The Finance Committee acts on behalf of the faculty to advise the dean, department heads, and administrative staff on matters pertaining to the College's financial plans and processes, including the setting of fund-raising priorities for developments and programs. The College Strategic Planning Committee is in charge of strategic planning. The committee:

- Reviews, revises, and maintains the Five-Year Strategic Plan for the College, including responding to the University's Strategic Plan with specific measures to ensure that the College's efforts align with the University's.

- Presents its recommendations to the faculty as necessary to ensure that the Strategic Plan meets the emerging needs of the College and the University.
- Consists of the dean, all department heads, at least one member of the CCI Senate Caucus, and other members as appointed by the dean to represent faculty interests related to any issues that emerge in the University's Strategic Plan.

Faculty are also involved in College governance, including, but not limited to, organization, governance, tenure and promotion, service responsibilities, and strategic planning.

CCI's Strategic Plan

The CCI Strategic Planning and Budget Committee was charged with maintaining and updating the College's strategic plan. The strategic plan document details the regular monitoring and updating of the plan over the years (see Appendix 5.4 for Drexel Board of Trustees Meeting for the College). Dean Yi Deng formed the CCI Visioning Committee in fall 2016 to replace the Strategic Planning and Budget Committee.

The Strategic Plan 2016-21 articulates goals for CCI to build this identity through four key areas of investment: Research Excellence, Education Excellence, Institution Building, and Community Engagement (full documents are in Appendices 1.1, 1.6, and 5.5). Computation and information connect all aspects of modern scholarship, education, business, health care, and other facets of everyday life. The College of Computing & Informatics (CCI) is uniquely positioned to become a crossroads of innovation at Drexel University. In the coming years, CCI will establish its identity and reputation at Drexel and among computing and informatics institutions globally.

Strategic Research Goals

Increase funding levels by increasing not only the number, but the quality of the proposals we submit. To increase quality, we must identify opportunities early and form the right teams for the

right opportunities. Administrative structures should support all phases of the grant writing process while trusting the faculty to know and do their research.

Create systematic support for faculty at all levels to identify and pursue career advancement goals. This includes not only supporting our early career faculty in building a strong research agenda and tenure case, but also associate and full professors in achieving higher levels of recognition and success. This includes 1) creating systematic mentorship opportunities, and 2) identifying appropriate balance between productivity in research, teaching, and service.

Create systematic grant writing and mentorship support for PhD students to help them identify and pursue fellowship, internship, and other career advancement opportunities.

Strategic Education Goals

Create and promote a distinctive identity for CCI education. CCI cannot compete on price and must compete on quality. Quality is diffuse, and being both high quality and distinctive will provide a better basis for attracting students. Possible components of this identity include experiential learning, multidisciplinary options, and innovative use of technology in education.

Improve quality and efficiency of educational offerings. Quality and efficiency are inseparable and both must be improved together. It seems less likely that there are sweeping initiatives in this area than many tactical initiatives that will have smaller impact. But in every case, quality and efficiency need to be two sides of the same coin. For example, expanding the use of undergraduate lab assistants might improve efficiency. That needs to be combined with better lab assistant training to improve quality.

Improve student retention. CCI does a good job of placing our students in competitive coops and our graduates in lucrative jobs. We could, however, improve the rates at which our students persist and graduate. This will involve two types of tactical efforts: 1) improving the student experience so that students make the choice to stay, and 2) creating opportunities to offset costs so that those students are financially able to complete their degrees.

Expand education offerings for students not majoring in a CCI degree. This should include educational program collaborations with other academic units at Drexel similar to the MSHI and cybersecurity degrees. It should also include minors and individual courses for other students to further support the goal of creating a computation—and information—literate student body. These offerings will be an important part of making CCI a hub of computing and informatics at Drexel.

Strategic Institution Building Goals

Unify the College into a single building with adequate space for modern research laboratories, faculty and student workspaces, and dedicated collaborative spaces to better support research and teaching while strengthening the social fabric of the College.

Increase opportunities for socialization, collaboration, and exploration by creating social "sandboxes" in which people regularly interact, get to know each other, and learn others' organizational norms.

Recognize contributions and excellence within the College with professional staff, faculty, and student awards.

Increase diversity of our students and faculty. Diversity can be measured along gender, race, socio-economic, and other dimensions. Efforts to diversify our student population in particular require a continual reexamination of CCI's academic culture, degrees, and administrative structures to assess whether we are sustaining or challenging traditionally exclusionary aspects of (especially computing) culture that lead to low minority engagement and high attrition.

Strategic Community Engagement Goals

Develop a strong integration with the Innovation Neighborhood. The Innovation Neighborhood is essential to Drexel's strategic plan and we envision CCI's role in this development as a central

one. CCI should work closely with the University to ensure a tight integration with neighborhood development.

Help build a stronger residential community. The innovation neighborhood is only one way that Drexel and CCI can foster growth in our West Philadelphia neighborhood. Creating opportunities to partner with residents of our local communities to support and meet their employment, innovation, and community needs should play a role in helping CCI identify research and education opportunities.

Expand partnerships with local industry. CCI's industrial ties have been critical for both research and education, providing applied problems and challenges for researchers and students to tackle while also establishing relationships with local groups who guide future directions through industrial boards, senior projects, and so on. CCI should expand its development of these relationships and strengthen the industry's contributory role in guiding our future research and education portfolio.

Increase involvement with local area schools and universities. CCI's partnerships with local schools and universities allow us to harness local talent and contribute in critical ways to our research and educational missions. Although we have long-established relationships with, for example, elementary and high schools in the West Philadelphia area, both CCI and the schools themselves would greatly benefit from increased involvement and collaboration and more visible participation within Drexel's educational initiatives like DragonsTeach and CASTLE.

V.14 *The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of administration, finances, and resources.*

Budget Decision-Making Process

Deans and business officers work collaboratively and with department heads, when appropriate, to build budgets, plan for changes in activity levels (enrollments, credit hour production, grant

funding), and should understand the financial implications of various programmatic decisions. Primary unit level-tasks include:

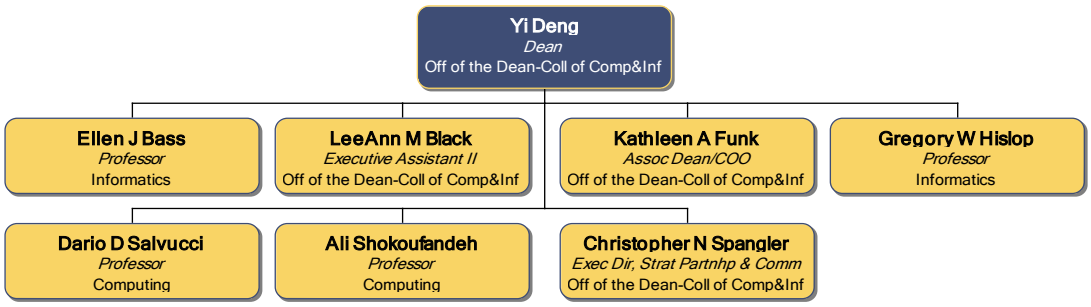
- Prepare *all-funds* budgets:
- Develop realistic revenue budgets with assistance from the Budget and Financial Planning Office and Enrollment Management & Student Success (EMSS):
- Build expenditure budgets based on total anticipated expenditures related to all fund types:
- Use scenario planning tools to understand financial implications of programmatic decisions:

In a general sense, the department head determines the budget for the MSLIS program by assigning faculty and adjuncts (using administrative staff) to help with all aspects of the program. The College does not specifically set funds aside for each program but gives the department head a budget that fully meets the needs for the program. This has been achieved through biweekly executive council meetings that include the College COO, dean, associate deans, and department heads.

Organizational Chart of the College

The overall organizational structure of the College can be seen in Figure 5.3. Dr. Ellen Bass leads the Department of Information Science as the Department Head. Kathleen Funk leads the College financial team as the Chief Operating Officer (COO). Dr. Gregory Hislop leads the college advising team. Dr. Dario Salvucci leads the Department of Computer Science as the Department Head. Ali Shokoufandeh leads the College research and operations team. Christopher Spangler leads the College's communication team.

Figure 5.3 College Organizational Structure



Figures 5.4 to 5.9 show the organizational structure of individual departments and units.

Figure 5.4 Organizational Structure of the IS department

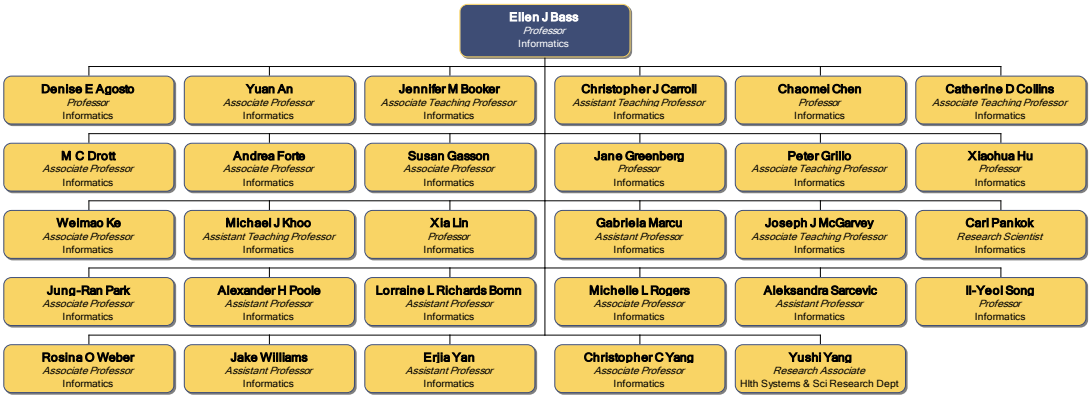


Figure 5.5 Organizational Structure of the CS Department

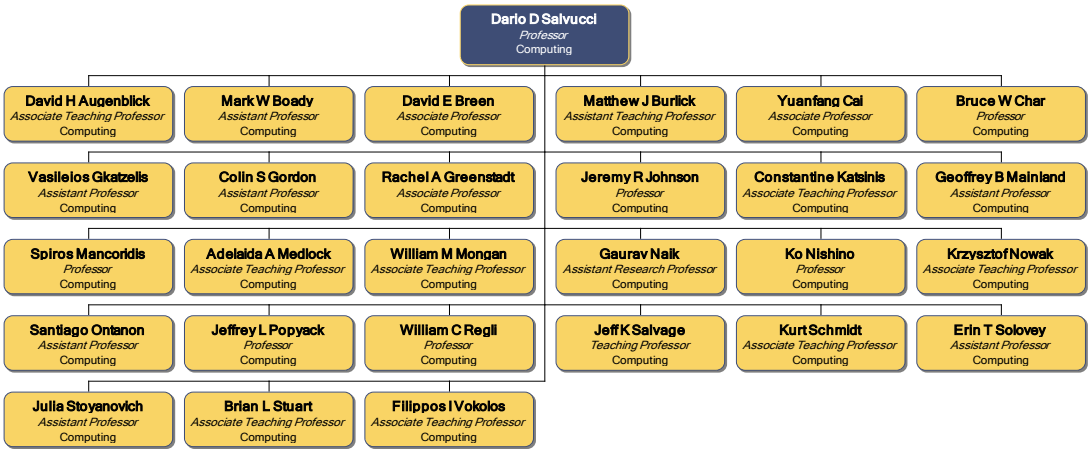


Figure 5.6 Organizational Structure of the College Advising Unit

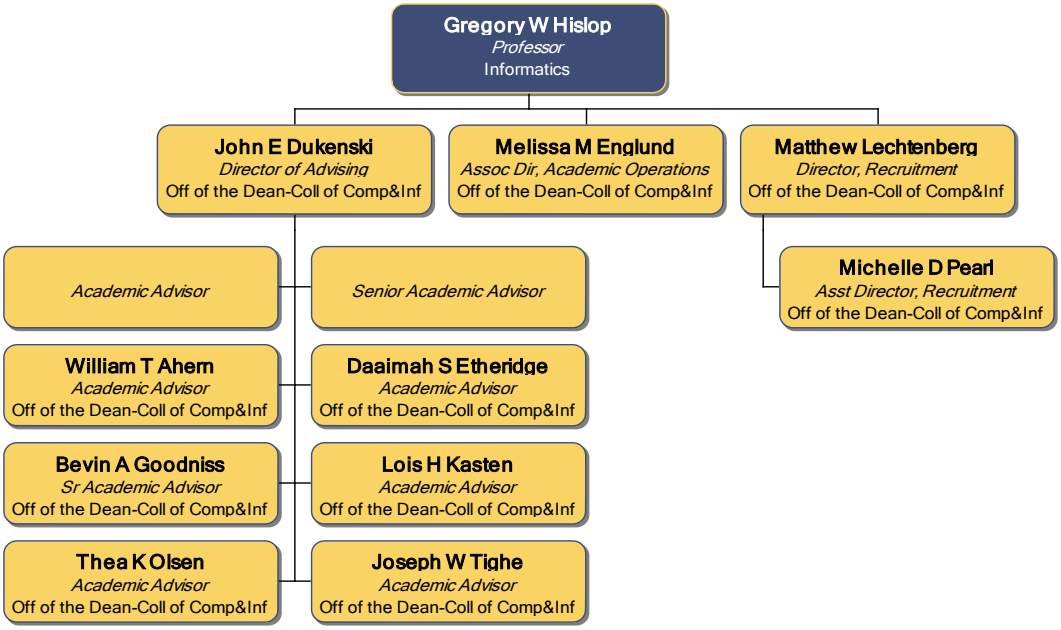


Figure 5.7 Organizational Structure of the College Research Operations Unit

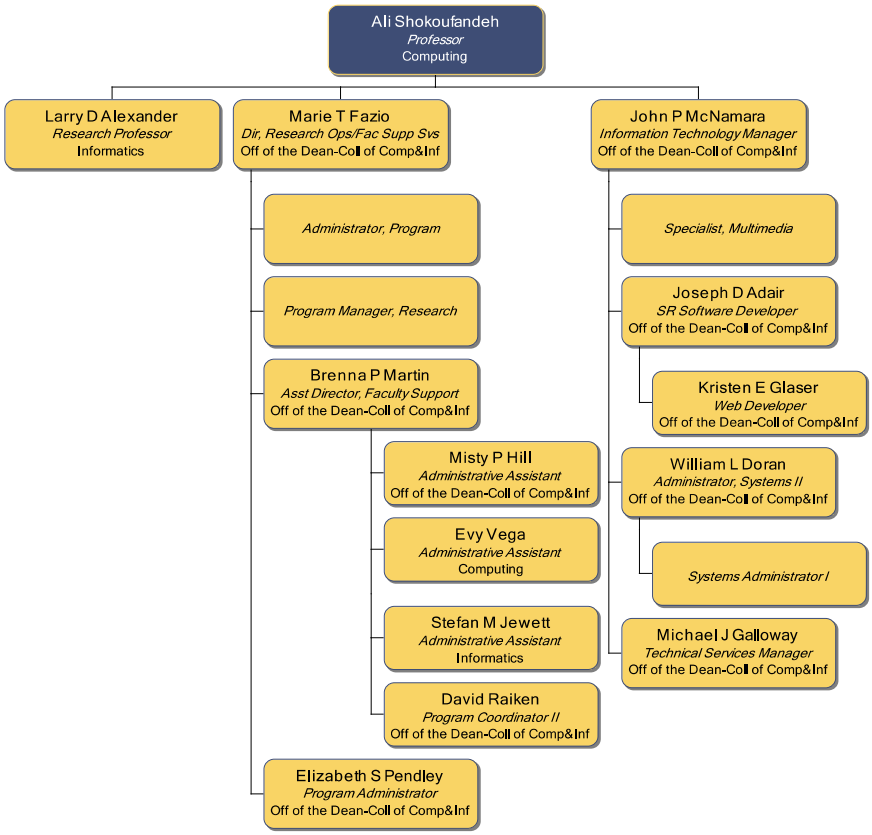


Figure 5.8 Organizational Structure of the College Financial Unit

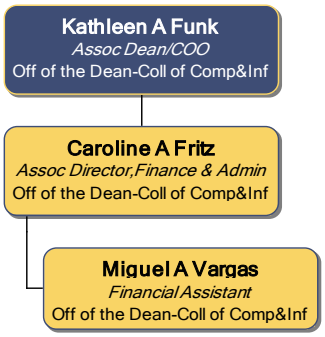
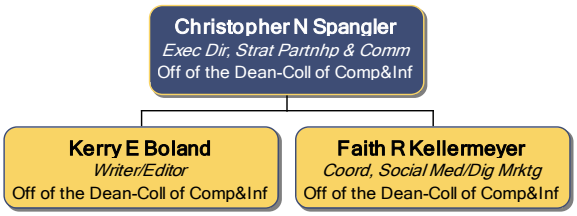


Figure 5.9 Organizational Structure of the College Communication Unit



V.15 *The program demonstrates how the results of the evaluation of administration, finances, and resources are systematically used to improve the program and to plan for the future.*

The MSLIS program uses CCI college assemblies and IS Department meetings to collect evaluation results of administration, finances, and resources. The results are also valuable to improve the program and plan for the future. CCI college assemblies serve as a unique occasion for college-level committees to communicate progress, gather feedback, and demonstrate evaluation results. For instance, College Bylaws Committee, College Curriculum Committee, and College Strategic Planning Committee have all presented in recent College assemblies. Ad hoc committees such as the Broaden Participation in Computing Committee have also presented in College assemblies. At the beginning of each term, the dean and College's COO present college enrollment numbers and financial statistics and made budget estimates and projections. The College IT team has also presented during assemblies to provide major updates on resources and facilities.

IS Department meetings deal with department-level affairs. The MSLIS Curriculum Committee has presented periodically in IS Department meetings to gather feedback on revisions on course learning objectives, programs of study, and course sequences and pre-requisites. IS Department meetings also serve as an opportunity for IS faculty members to cast votes on any curriculum change required by the CCI Curriculum Committee and Drexel SCAA.

College Assembly

The College holds regular College assembly meetings, typically one to two meetings per term (three to five per year). These meetings are open to all faculty and professional staff at the College. For those who cannot attend the meetings in person, live videos feeds are provided and recordings are uploaded to YouTube. For instance, the February 2017 College assembly is available at **https://www.youtube.com/watch?v=Q88M5mhO88E**

IS Department Meetings

The IS Department holds weekly meetings (sometime bi-weekly depending on the "item to discuss" requests from faculty) Wednesday at 11 p.m.-12 p.m. This time is reserved so that no class is taking place and every faculty member can participate. The same as College assembly meetings, IS Department meetings are available via live video feeds and recordings are available for those who cannot participate. Sample agenda items of College assembly and IS Department meetings can be found at the appendix (Appendices 5.1, 5.2, and 5.3 respectively).

Budget Process Principles

The five primary principles developed by the Drexel University Steering Committee state that the budget model should:

- Translate strategic goals into short and long-term operating plans, focusing on advancement of the University's academic mission.
- Utilize equitable methods to align funding with operating plans, while providing justifications for strategic allocations.
- Ensure that resource management, planning, and allocations are collaborative, data-informed, clear, transparent, and applicable to all funds.
- Provide academic leaders with clear and fair connections between performance and rewards to ensure accountability and encourage entrepreneurship for University-wide revenue growth.

- Promote exceptional stewardship over the University's financial and physical resources, while providing leadership the flexibility to make informed strategic decisions.

Summary

Strength and culture: The MSLIS program is the largest graduate program at CCI. The College administration has given this program a high priority in the aspects of administrative support, resource allocation, and strategic planning. MSLIS faculty members are well represented on the University's advisory and policy-making bodies, and their research has been supported by a number of internal and external grants. The inclusion of learning technologies such as echo360 allows online students to fully interact and engage with their peers and instructors. The designated advising team provides a full-service experience in supporting students' academic learning and career consulting.

Challenge: The transition to RCM has been long and is likely to continue for a couple more years. This transition has been accompanied by a substantial decrease in the University's undergraduate enrollment and its annual operating budgets for the last three years. This decrease does not directly connect to the LIS program, although it impacts the resources generally available to the College and, indirectly, to the program. The College and faculty are working collaboratively with the administrators at all levels to minimize the impact of the budget tightening on the operations of the degree programs across the University and at the College level.

Weakness: The Rush Building houses campus classes, CCI administrative offices, and the iCommons computer lab. CCI also has on-campus classrooms, administrative offices, and faculty offices at University Crossings 100 and the Science Center. CCI cannot fulfill its role in the profession and in the University without a building to unify its location. A central building unifying all of the Colleges disparate spaces is essential for long-term success. This important space need has been listed as an agenda item of the Drexel Building Committee for the Committee's future planning.

Synthesis and Overview

The final section of the Self Study synthesizes the principal character, strengths, limitations, and challenges of the school and program. This summary concisely reiterates the evidence for compliance with the Standards. It may also describe unique features, and the culture and context of the program, school, or institution in order to improve understanding of the program.

Our MSLIS program originated in 1892 and remains the second oldest of its kind in America. Of the continuously accredited programs, ours is the oldest as it has been accredited since 1942. In 2000, the MSLIS degree was first offered in online asynchronous mode. The College (formerly known as The *iSchool* at Drexel, College of Information Science & Technology) has reorganized through the formation of the College of Computing & Informatics (CCI) at the beginning of AY 2013-14. The formation of the College reflects the growing role of computing and informatics in all sectors of the economy. The College was formed after a University initiative, Program Alignment & Review (PAR), launched in 2012, found computing-related courses and programs to be spread across the University in several departments and colleges. The PAR report suggested bringing them together under one college. As a result, CCI was founded in 2013.

The College excels in a broad range of multidisciplinary research and education modalities in computing and informatics by uniting the former College of Information Science and Technology, the Department of Computer Science in the College of Engineering, and the Department of Computing and Security Technology in the Goodwin College of Professional studies. This expansion deepens and further broadens our LIS program, which lies at the center of CCI. The College consists of two departments: the Department of Computer Science and the Department of Information Science. The MSLIS program resides in the Department of Information Science.

This self-study provides evidence for compliance with the ALA 2015 standards. Our key outcomes since the last ALA accreditation review in 2010 are described in detail with respect to our governance, curriculum, faculty, students, and our administration, finance, and resources.

MSLIS Program Goals and Objectives

The systematic planning of the MSLIS program is consistent with the University's mission and values, combining theory and practice in education with a strong emphasis on technological applications. Drexel University's emphasis on providing professional education across most colleges is compatible with the LIS education program. The MSLIS program inherits its vision, mission, and goals from the College. While each component of the MSLIS program is guided by the overall vision and mission and goals of the College, the curriculum is derived from the outcomes that have been identified as central to our educational endeavor.

The MSLIS program regularly reassesses LIS curriculum and program learning objectives to ensure that our graduates are well prepared to meet and even exceed expectations in rapidly changing information environments. The new program including its learning objectives are the result of our extensive efforts toward systematic planning and development of our curriculum over a three-year period. The systematic planning and revision of the program are directed by input from various constituencies including students, faculty, alumni, employers and administration. As presented in this self-study, the program employs various evaluative mechanisms including direct and indirect measures assessing attainment of program objectives.

Curriculum

The MSLIS program combines study of the theory, principles, practices, and values of librarianship with individualized curriculum paths that enable students to focus their courses of study toward their specific interests within the broad range of information professions. With the new program starting in fall 2017, MSLIS students will choose from three broad areas of focus: 1) digital technology services, 2) information and data services, and 3) user and community

services. Both the degree program that was in place from 2011-17 and the newly revised program are tied to the knowledge and competencies of several professional associations, most notably ALA's Core Competencies of Librarianship, to which the required core courses are closely tied.

Faculty

As of spring term AY 2016-17, the College has a total number of sixty-seven full-time and thirty-three adjunct faculty members. Of those, thirty-four full-time and twenty adjunct faculty members are in the Department of Information Science. Multidisciplinary research and collaboration provided through faculty members with diverse backgrounds have been a strategic focus of our program. The LIS program takes advantage of the College's nurturing intellectual environment that allows the faculty to engage in active scholarly and educational activities. The College's reorganization and expansion has brought unique opportunity for LIS faculty to engage with synergistic collaboration across cross cutting and boundary-spanning collaboration.

Students

The MSLIS program educates a student body and prepares future professionals to lead, develop, and sustain optimal information services across a wide variety of library and related information environments. The MSLIS program follows a recruitment and admission plan based on value to the student, and provides academic guidance, career planning, and financial aid assistance. The program is well-documented with descriptions, policies, and procedures publicly accessible through a variety of media. The MSLIS program has a tradition of providing students with a high degree of flexibility in designing their programs of study. An advising system has been maintained to ensure that the students remain focused and construct a coherent program of study that tailors to their intellectual and professional goals. To this end, each student is assigned a graduate advisor upon admission to the MSLIS program. The graduate advisor is available to the student for questions about course selection, registration, program planning, and any other academic or administrative concerns. Based on the interests outlined in their application essays,

accepted students are matched with full-time faculty members. Each faculty member sends an e-mail welcoming the student to the program and offering to provide curricular guidance.

Although the overall enrollment of MSLIS students has decreased, which is consistent with the national trend, the percentage of minority students has increased by five percent. Our recruitment efforts are informed by a commitment to a diverse student body in both on-campus and online environments. Scholarships and other financial aid are used to attract excellent students. Our admissions policies and procedures ensure a high quality of students with potential to contribute to the field.

Administration, Finance, and Resources

Our College has new leadership since the last accreditation occurred in 2010. A new dean, Dr. Yi Deng, was appointed in September, 2016. Dr. Ellen Bass was appointed as head of Department of Information Science (IS) in May 2015. Dr. Bass' term will end at the end of August 2017; Dr. Xia Lin has been appointed as new IS department head starting September 1, 2017. One major institutional change is the declining University enrollment in the past three years. This has an impact on the University as a whole. The enrollment decline is the byproduct of the University's strategic plan of "recruiting and enrolling future alumni, not just freshmen, with improving retention and graduation outcomes." Thus, the retention rate has gone up by five percent from 2014-15.

The College has made effective use of its current physical and technical resources. The most recent faculty survey indicates that faculty are highly satisfied with resources and services provided by Hagerty Library and the iCommons. The iCommons serves as the main computing and information system, general infrastructure (web servers, file servers, network connections), hardware and software control for open/closed labs and classrooms, College application systems, and administration and technical support for online courses through the Blackboard system. Rush Building facilities accommodate persons with disabilities; nearly all of the student-access areas,

including bathrooms, are ADA compliant. The building accommodates wheelchair access and other assistive equipment.

Strengths

- **Our program.** Of the continuously accredited programs, our program is the oldest as we have been accredited since 1942. With such a long history, our program has been known for innovative research and technology-driven education. In 2000, the MSLIS degree was first offered in online asynchronous mode. The inclusion of learning technologies such as echo360 allows online students to fully interact and engage with their peers and instructors. Our curriculum has been renewed continually with a view toward providing innovative and cutting-edge education to our students who are then able to empower others in a rapidly changing information and technology-driven world. The MSLIS program is the largest graduate degree program and acts as the flagship degree in the College. The College administration has given the LIS program a high priority in the aspects of administrative support and resource allocation.

Our LIS program has an international recognition and a track record. The program is ranked eleventh nationally in the most recent 2017 *U.S.News and World Report* rankings for Library and Information Science programs as a whole. In terms of within-degree specializations, the program is ranked fourth for Information Systems, third for Health/Medical Librarianship, seventh for Services for Children and Youth and seventh for Digital Librarianship.

- **Our Faculty.** The LIS faculty are internationally renowned for its innovative research and professional activities. This is evidenced by strong publication and funded research in addition to other scholarly activities and professional service produced by our LIS faculty. The expansion through the formation of the College of Computing & Informatics further deepens and broadens the reach of the LIS program and provides the program with unprecedented opportunities. The expansion also brings forth great potential for LIS faculty to broaden their research agendas. Building an effective multidisciplinary team is fundamental in solving

complex problems that tend to predominate in a communication and information technology-driven society. Our College provides a fertile ground for LIS faculty to conduct and execute such a complex research program effectively and productively through synergistic collaboration.

- **Student Services.** Historically, our program has one of the highest retention and graduation rates across the University. The MSLIS program has always prided itself on the quality of its student services, including a strong student advising program. The quality of the advising students was evidenced by Drexel's inaugural Innovation in Academic Advising Award that the academic advisors received in recognition of their exceptional service to students and the University. This award recognizes the advising team's demonstrated success in raising the effectiveness of academic advising and increasing student performance through the new technologies, processes, and administrative approaches.

Our LIS program continues to leverage the above-mentioned strengths.

Challenges

- **Enrollment/Curriculum Planning/Recruitment**. Overall enrollment of MSLIS students has decreased, which is consistent with the national trend. During the accreditation review period the biggest challenge relating to curriculum planning and delivery has been decreasing enrollment, which has led to a need to reduce the number of courses offered each term. Up to this point, most of the reduction has been in terms of fewer sections of courses offered within single academic years, with limited impact on students. Reduced enrollment does continue to be an issue, however, and it poses a future threat to the number and breadth of electives the program can support. In order to increase enrollment, the College carries out an active recruitment plan for the MSLIS program through various mechanisms including direct partnerships with regional and national library associations, open house events (on-campus and online), outreach information materials, website resources, and social media.

- **Depletion of Faculty.** The number of faculty in the MSLIS program has been decreased due to the following: 1) the retirement of seven full-time faculty members (Carbo, Davis, Hahn, Lewis, Marion, McCain, Newman); 2) an unsuccessful case of third year/mid tenure review; 3) two unsuccessful tenure/promotion cases, 4) one hire who did not complete his dissertation in a timely manner, and 5) departures to other employment opportunities.

Decrease of the number of faculty has impacted on faculty governance and service in addition to teaching areas. However, new faculty hire (Greenberg, Yan, Richards, Poole, Marcu, Williams, Sarcevic, Carroll) have made up for teaching areas covered by certain retired faculty. For instance, Drs. Yan and Greenberg cover teaching areas by Drs. McCain, Turner, and Marion. Dr. Newman's teaching areas focused on the School Library Media Program; in response to a policy change in Pennsylvania and lack of enrollment, the School Library Media Program has been suspended. Thus, Dr. Newman's retirement has not made a direct impact on our curriculum. Nonetheless, the loss of the above mentioned faculty members has brought impact on research production and service/governance.

- **Finance**. Enrollment decrease in LIS program has been a great challenge.

The transition to RCM has been long and is likely to continue for a couple more years. This transition has been accompanied by a substantial decrease in the University's undergraduate enrollment and its annual operating budgets for the last three years. This decrease does not directly connect to the LIS program, although it impacts the resources generally available to the College and, indirectly, the program itself. The College, and faculty are working collaboratively with the administrators at all levels to minimize the impact of the budget tightening on the operations of the degree programs across the University and at the College level.

- **Space/Building**. The formation of the College of Computing & Informatics provides the LIS program with unprecedented opportunities. In order to fully realize these opportunities, however, our College needs to address multiple challenges associated with current space

constraints. CCI is spread across three buildings, resulting in limited opportunities for interaction and development of a vibrant, shared research culture. Although we inhabit multiple buildings, we have insufficient space to provide enough common areas, office space, and labs to meet current faculty, student, and professional staff needs. The most recent faculty survey indicates that faculty perceived the quality of the space for collaboration to be markedly inadequate. A central building unifying all of the Colleges is essential for long-term success and the further integration of the many disciplines now contained within the College.

To address these challenges, we are engaged with various strategic activities. Our College hired Executive Director of Strategic Partnerships and Communications Christopher Spangler, to enhance the College's marketing and recruitment efforts. In addition, efforts for increasing enrollment have been made through various strategies and further efforts will occur during the next review period of ALA accreditation. Recruitment of new faculty members is conditional on our program's enrollment increase. MSLIS student enrollment increases will bring forth new faculty hires. Our program will continue to seek funding and grants for supporting our students and research initiatives. The Drexel Building Committee has been making efforts toward addressing the needs of a collaborative meeting space.