

## **SCS Graduate Program Curricula 2006-2007**

The following program requirements apply to SCS graduate students that begin their program in the 2006-07 academic year. Please note that you are bound to the curriculum requirements in effect in the quarter you start taking courses, not the quarter you are admitted. While we will make every reasonable effort to accommodate students whose programs change, this is not always possible. Northwestern University reserves the right to modify or discontinue any program without notice.

Click on the links below to review the curriculum for your program.

### Computer Information Systems

- Master of Science Degree Requirements
- Professional Graduate Series Requirements

### Creative Writing

- Master of Arts Degree Requirements
- Professional Graduate Series Requirements

### Liberal Studies

- Master of Arts Degree Requirements
- Professional Graduate Series Requirements

### Literature

- Master of Arts Degree Requirements
- Professional Graduate Series Requirements

### Medical Informatics

- Master of Science Degree Requirements

### Public Policy and Administration

- Master of Arts Degree Requirements
- Professional Graduate Series Requirements

### Quality Assurance and Regulatory Science

- Professional Graduate Series

### Sports Administration

- Master of Arts Degree Requirements
- Professional Graduate Series Requirements

## Computer Information Systems

### Master of Science Degree Requirements

<b>Courses</b>	<b>Units</b>
<b><i>Core Courses</i></b>	<b>5</b>
CIS 314 Intermediate Object-Oriented Programming <sup>1</sup>	
CIS 315 Advanced Object-Oriented Programming <sup>2</sup>	
CIS 317 Introduction to Databases	
CIS 350 Strategic Information Systems	
CIS 394 Software Project Management & Development	
<b>Concentration area courses (choose three electives in one of these areas of concentration)</b>	<b>3</b>
<b><i>Database &amp; Internet Technologies</i></b>	
<b><i>Networks &amp; Telecommunications</i></b>	
<b><i>Software Development &amp; Project Management</i></b>	
<b>Other Required Courses</b>	
Leadership Series (I & II) <sup>3</sup>	1
One of the following	2
CIS 497 <sup>4</sup> and 498 Systems Project I & II - <i>or</i> -	
CIS 590 Capstone Project and additional elective	
<b><i>Total required units:</i></b>	<b>11</b>

<sup>1</sup> 06-07 students who completed CIS 212-CN 'Introduction to Object Oriented Programming' but not CIS 314 'Intermediate Object-Oriented Programming' prior to Fall 2008 may substitute an elective in place of the requirement to take CIS 314.

<sup>2</sup> 06-07 students who completed CIS 314 'Intermediate Object-Oriented Programming' but not CIS 315, 'Advanced Object Oriented Programming' prior to Fall 2008 may substitute an elective in place of the requirement to take CIS 315.

<sup>3</sup> LEADERS 481 'Foundations of Leadership' is equivalent to this requirement

<sup>4</sup> CIS 497 is no longer offered; 06-07 students should take an additional elective in substitution for CIS 497

## Professional Graduate Series Requirements

Please note: overlapping courses may count toward one PGS only

Database and Internet Technologies	Units
<b>Core Courses</b>	
CIS 314 Intermediate Object-Oriented Programming	1
CIS 317 Introduction to Databases	1
CIS 419 Web Application Development	1
and one of the following:	
CIS 431 Database Administration	1
CIS 435 Introduction to Data Warehousing and Data Mining	1
<b>Total required units:</b>	<b>4</b>

Networks and Telecommunications	Units
<b>Core Courses</b>	
CIS 323 Local Area Networks	1
CIS 441 Wireless Communications	1
CIS 444 Network Security	1
CIS 448 Information Systems and Telecommunications Management	1
<b>Total required units:</b>	<b>4</b>

Software Project Management and Development	Units
<b>Core Courses</b>	
CIS 314 Intermediate Object-Oriented Programming	1
CIS 315 Advanced Object-Oriented Programming	1
CIS 394 Software Project Management and Development	1
and one of the following:	
CIS 483 Software Testing and Quality Assurance	1
CIS 485 Software Systems Architecture	1
<b>Total required units:</b>	<b>4</b>

## Creative Writing Master of Arts Degree Requirements

Courses	Units
<b><i>Fiction Concentration</i></b>	
MCW 413 Studies in Fiction Writing	3
MCW 479 Poetry for Prose Writers	1
One of the following:	1
MCW 570 Seminar on Teaching Creative Writing <sup>1</sup> - <i>or</i> -	
MCW 575 Seminar on the American Publishing Industry <sup>1</sup>	
Four electives: may include internships or independent studies (maximum of 2 independent studies and 1 internship); at least two electives must be literary studies.	4
MCW 590 Thesis Research	1
<b><i>Creative Nonfiction Concentration</i></b>	
MCW 461 Studies in Writing Creative Nonfiction	3
MCW 479 Poetry for Prose Writers	1
One of the following:	1
MCW 570 Seminar on Teaching Creative Writing <sup>1</sup> - <i>or</i> -	
MCW 575 Seminar on the American Publishing Industry <sup>1</sup>	
Four electives: may include internships or independent studies (maximum of 2 independent studies and 1 internship); at least two electives must be literary studies.	4
MCW 590 Thesis Research	1
<b><i>Poetry Concentration</i></b>	
MCW 411 Studies in Writing Poetry	3
MCW 480 The Elements of Prose Genres for Poets	1
One of the following:	1
MCW 570 Seminar on Teaching Creative Writing <sup>1</sup> - <i>or</i> -	
MCW 575 Seminar on the American Publishing Industry <sup>1</sup>	
Four electives: may include internships or independent studies (maximum of 2 independent studies and 1 internship); at least two electives must be literary studies.	4
MCW 590 Thesis Research	1
<b><i>Total required units:</i></b>	<b>10</b>

## Professional Graduate Series Requirements

All Specializations	Units
<b><i>Core Courses</i></b>	
Four sections of MCW 411, 413, or 461, depending on genre concentration	4
<b><i>Total required units:</i></b>	<b>4</b>

<sup>1</sup> Teaching or Publishing seminar requirement was eliminated for all MA in Creative Writing students. Students who took MCW 570 or 575 may apply this credit to their elective requirements.

## Liberal Studies

### Master of Arts Degree Requirements

<b>Courses</b>	<b>Units</b>
At least two of the following seminars:	2 - 3
IPLS 401 Seminar in Liberal Studies I	
IPLS 402 Seminar in Liberal Studies II	
IPLS 403 Seminar in Liberal Studies III	
Electives in humanities and related social sciences; may be applied toward a specialization (4 courses) in either: American Studies, History, Religious and Ethical Studies, or an individualized specialization	5 - 6
Capstone Project, supported by either:	1
IPLS 590 Thesis Research (see Master's Thesis) - <i>or</i> -	
Additional elective	
<b>Total required units:</b>	<b>9</b>

### Professional Graduate Series Requirements

	<b>Units</b>
All Specializations	
<b>Core Courses</b>	
1 section of IPLS 401, 402, or 403	1
Any other 3 other MALS classes	3
<b>Total required units:</b>	<b>4</b>

## Literature

### Master of Arts Degree Requirements

Courses	Units
English 410 Introduction to Graduate Study	1
Literature Courses (400- or 500-level)	4
Electives in literature or related humanities; may be applied toward a specialization (4 courses) in either: American Literature, British Literature, Comparative and World Literatures, or an individualized specialization.	3
Capstone Project, supported by either:	1
ENGLISH 590 Thesis Research (see Master's Thesis) - <i>or</i> -	
Additional elective	
<b>Total required units:</b>	<b>9</b>

### Professional Graduate Series Requirements

All Specializations	Units
<b>Core Courses</b>	
English 410 Introduction to Graduate Study	1
Any other 3 other MALit classes	3
<b>Total required units:</b>	<b>4</b>

## Medical Informatics

### Master of Science Degree Requirements

Note: joint MD/MMI students must consult with their Feinberg advisors when constructing a course plan.

<b>Courses</b>	<b>Units</b>
<b>Entry Path Courses (path determined by SCS)</b>	1-4 <sup>1</sup>
<b><i>Clinical Entry Path</i></b>	
CIS 313 Telecommunications & Computer Networks	
CIS 317 Introduction to Databases	
<b><i>Technologist Entry Path</i></b>	
MED INF 401 American Health Care System	
MED INF 402 Introduction to Clinical Thinking	
<b>Core courses</b>	7
PUB HLTH 302 Introduction to Biostatistics <sup>2</sup>	
MED INF 403 Introduction to Medical Informatics	
MED INF 404 Health Care Enterprise Operations	
MED INF 405 Health Care Information Tech Integration & Standards	
MED INF 406 Decision Support Systems & Health Care	
MED INF 407 Legal, Ethical & Social Issues in Informatics	
MED INF 408 Medical Technology Acquisition & Assessment	
<b>Other required courses</b>	2
Leadership Series (I & II) <sup>3</sup>	
MED INF 590 Thesis Research <sup>4</sup>	
<b><i>Total required units:</i></b>	<b>11<sup>5</sup></b>

<sup>1</sup> Some students may have been assigned zero track classes.

<sup>2</sup> Online students take MED\_INF409-DL 'Introduction to Biostatistics'

<sup>3</sup> LEADERS 481 or MED\_INF 481-DL 'Foundations of Leadership' satisfy this requirement.

<sup>4</sup> 06-07 students may take MED\_INF 498 'Capstone Project' in substitution for MED\_INF 590

<sup>5</sup> This is the minimum number of units required for the degree. Students who have completed all other curriculum requirements and have fewer than eleven units should complete sufficient additional electives to meet this requirement. Consult the student handbook for further information.

## Public Policy and Administration

### Master of Arts Degree Requirements

Courses	Units
<b>Core courses</b>	
MPPA 402 Elements of Public Finance & Budgeting	1
MPPA 403 Fundamentals of Public Administration	1
MPPA 405 Elementary Statistics for Political Research	1
MPPA 406 Analytic Methods for Public Policy Analysis	1
MPPA 407 Scope and Dynamics of Public Policy	1
MPPA 408 Sociology of Organizations	1
<b>Concentration area courses (choose four electives in one of these areas of concentration)</b>	4
<i>Health Services Policy</i>	
<i>Public Policy</i>	
<i>Public Safety and Security</i>	
<i>Technology and Information Management</i>	
<i>Urban Policy and Planning</i>	
<b>Other Required Courses</b>	
MPPA 590 Thesis Research	1
Four of the following zero-credit professional workshops: <sup>1</sup>	0
MPPA 400-1 Public Sector Strategic Planning and Leadership	
MPPA 400-2 Human Resources Management in the Public Sector	
MPPA 400-3 Public Sector Finance for the Nonfinancial Manager	
MPPA 400-4 Public Sector Information Systems Management	
Leadership Series (I & II) <sup>2</sup>	1
<b>Total Required Units</b>	<b>12</b>

<sup>1</sup> These workshops are discontinued; the 10-week, one unit MPPA 409 Research & Writing is the substitute if students are lacking one or more workshops.

<sup>2</sup> LEADERS 481 'Foundations of Leadership' is equivalent to this requirement.

### Professional Graduate Series Requirements

Please note: overlapping courses may count toward one PGS only

Public Safety and Security	Units
<b>Core Courses</b>	
Any four courses from the PSS specialization	4
<b>Total required units:</b>	<b>4</b>

Urban Policy and Administration	Units
<b>Core Courses</b>	
Any four courses from the UPA specialization	4
<b>Total required units:</b>	<b>4</b>

## Quality Assurance and Regulatory Science

### Master of Science Degree Requirements

Courses	Units
<b>Core courses</b>	<b>6</b>
QARS 401 Regulation and Quality Systems	
QARS 410 Introduction to Statistical Methods	
QARS 420 Practical Laboratory Management	
QARS 421 Applied Quality and Regulatory Practices	
QARS 430 Ethical and Legal Issues in Regulation and Quality	
QARS 435 Risk and Decision Management	
<b>Electives</b>	<b>2</b>
Any two elective courses	
<b>Other Required Courses</b>	<b>2</b>
Leadership I & II <sup>1</sup>	
Capstone Project <sup>2</sup>	
<b>Total required units:</b>	<b>10</b>

<sup>1</sup> LEADERS 481 'Foundations of Leadership' is equivalent to this requirement.

<sup>2</sup> QARS 590 'Research' satisfies this requirement.

### Professional Graduate Series Requirements

Quality Assurance and Regulatory Science	Units
<b>Core Courses</b>	
Any five courses from the MQARS curriculum	5
<b>Total required units:</b>	<b>5</b>

## Sports Administration

### Master of Arts Degree Requirements

Courses	Units
<b>Core Courses</b>	<b>7</b>
MSA 400 Sports in the Social Context	
MSA 401 Sports Research Methods & Quantitative Analysis	
MSA 402 Fundamentals of Sports Marketing	
MSA 403 Management and Organization of Sports	
MSA 404 Principles of Sports Finance & Accounting	
MSA 405 Legal & Ethical Issues in Sports Management	
MSA 406 Sports Risk Management	
<b>Concentration area courses (choose two electives in one of these areas of concentration)</b>	<b>2</b>
<i>Sports Management</i>	
<i>Sports Marketing &amp; Public Relations</i>	
<b>Other Required Courses</b>	<b>2</b>
Leadership Series (I & II) <sup>1</sup>	
MSA 590 Thesis Research or Practicum <sup>2</sup>	
<b>Total required units:</b>	<b>11</b>

<sup>1</sup> LEADERS 481 'Foundations of Leadership' is equivalent to this requirement.

<sup>2</sup> The Practicum is no longer offered. All 06-07 MSA students should complete a capstone.

### Professional Graduate Series Requirements

Please note: overlapping courses may count toward one PGS only

Sports Management	Units
<b>Core Courses</b>	
MSA 400 Sports in the Social Context	1
MSA 401 Sports Research Methods & Quantitative Analysis	1
Any two additional MSA courses	2
<b>Total required units:</b>	<b>4</b>

Sports Marketing and Public Relations	Units
<b>Core Courses</b>	
MSA 400 Sports in the Social Context	1
MSA 401 Sports Research Methods & Quantitative Analysis	1
MSA 402 Fundamentals of Sports Marketing	1
Any one additional course from the Marketing and PR specialization	1
<b>Total required units:</b>	<b>4</b>