

SPS Graduate Program Curricula  
2008-09

The following program requirements apply to SPS graduate students that begin their program in the 2008-09 academic year. If you defer starting the program, be aware 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.

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Clinical Research and Regulatory Administration

Graduate Certificate Requirements

<b>Courses</b>	<b>Units</b>
<b>Core Courses</b>	<b>3</b>
CLIN_RES 400 Essentials of Initiating Clinical Research	
CLIN_RES 401 Responsible Conduct of Research	
MSCI 303 Drug and Device Development or CLIN_RES 402	
<b>Electives (choose one of the below)</b>	<b>1</b>
CLIN_RES 403 Clinical Research Design and Methodology (Clinical Trials Conduct specialization)	
CLIN_RES 400 Regulatory Support and Administration (Regulatory Administration specialization)	
<b><i>Total required units:</i></b>	<b>4</b>

**Computer Information Systems  
Master of Science Degree Requirements**

<b>Courses</b>	<b>Units</b>
<b>Core Courses</b>	<b>6</b>
CIS 313-0 or CIS 313-DL Telecommunications & Computer Networks <sup>1</sup>	
CIS 314-0 or CIS 314-DL Intermediate Object-Oriented Programming <sup>23</sup>	
CIS 315-0 Advanced Object-Oriented Programming <sup>4</sup>	
CIS 317-0 or CIS 317-DL Introduction to Databases <sup>5</sup>	
CIS 350-0 or CIS 350-DL Strategic Information Systems <sup>4</sup>	
CIS 394-0 or CIS 394-DL Software Project Management & Development <sup>6</sup>	
<b>Electives (choose any 3 electives or 3 courses in an optional area of specialization)</b>	<b>3</b>
<i>Database &amp; Internet Technologies</i>	
<i>Information Systems Security</i>	
<i>Software Development &amp; Project Management</i>	
<b>Other Required Courses</b>	
LEADERS 481 or LEADERS 481-DL Foundations of Leadership	1
One of the following	1
CIS 498-0 OR CIS 498-DL Computer Information Systems Project - <i>or</i> -	
CIS 590 Capstone Project (see the SPS Graduate Handbook for guidelines)	
<b>Total required units:</b>	<b>11</b>

<sup>1</sup> Now CIS 413 Telecommunications and Computer Networks.

<sup>2</sup> 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>3</sup> Now CIS 414 Introduction to Object-Oriented Programming.

<sup>4</sup> Students who had not graduated by June 2010 and had not completed CIS 315 and CIS 350 prior to Fall 2010 may substitute electives for these courses.

<sup>5</sup> Now CIS 417 Database Systems Design and Implementation.

<sup>6</sup> Now CIS 494 Project Management I.

**Professional Graduate Series Certificates**

Please note: overlapping courses may count toward one PGS only

<b>Database and Internet Technologies</b>	<b>Units</b>
<b>Core Courses</b>	
CIS 314-0 or CIS 314-DL Intermediate Object-Oriented Programming <sup>1</sup>	1
CIS 317-0 or 317-DL Introduction to Databases <sup>2</sup>	1
CIS 419-0 or CIS 419-DL Web Application Development	1
<b>and one of the following:</b>	
CIS 431-0 or CIS 431-DL Database Administration	1
CIS 435-0 or CIS 435-DL Introduction to Data Warehousing and Data Mining <sup>3</sup>	1
<b>Total required units:</b>	<b>4</b>

<b>Information Systems Security</b>	<b>Units</b>
<b>Core Courses</b>	
CIS 313-0 or CIS 313-DL Telecommunications & Computer Networks <sup>4</sup>	1
CIS 452-0 or CIS 452-DL Fundamentals of Network Security	1
CIS 455-0 or CIS 455-DL Business Continuity & Disaster Recovery	1
CIS 457-0 or CIS 457-DL Management of Information Security	1
<b>Total required units:</b>	<b>4</b>

<b>Software Project Management and Development</b>	<b>Units</b>
<b>Core Courses</b>	
CIS 314-0 or CIS 314-DL Intermediate Object-Oriented Programming <sup>1</sup>	1
CIS 315-0 Advanced Object-Oriented Programming <sup>5</sup>	1
CIS 316-0 or CIS 316-DL Object-Oriented Analysis and Design	1
CIS 394-0 or CIS 394-DL Software Project Management and Development <sup>6</sup>	1
<b>and one of the following:</b>	
CIS 483-0 or CIS 483-DL Software Testing and Quality Assurance	1
CIS 485-0 or CIS 485-DL Software Systems Architecture	1
<b>Total required units:</b>	<b>5</b>

<sup>1</sup> Now CIS 414 Introduction to Object-Oriented Programming.

<sup>2</sup> Now CIS 417 Database Systems Design and Implementation.

<sup>3</sup> Now CIS 435 Practical Data Science Using Machine Learning.

<sup>4</sup> Now CIS 413 Telecommunications and Computer Networks.

<sup>5</sup> Students who had not graduated by June 2010 and had not completed CIS 315 and CIS 350 prior to Fall 2010 may substitute electives for these courses.

<sup>6</sup> Now CIS 494 Project Management I.

**Creative Writing (MA)  
Master of Arts Degree Requirements**

<b>Courses</b>	<b>Units</b>
Three workshops in one genre: <ul style="list-style-type: none"> <li>• Fiction: MCW 413 Studies in Fiction Writing (a.k.a. Fiction Workshop)</li> <li>• Creative Nonfiction: MCW 461 Studies in Writing Creative Nonfiction (a.k.a. Creative Nonfiction Workshop)</li> <li>• Poetry: MCW 411 Studies in Writing Poetry (a.k.a. Poetry Workshop)</li> </ul>	3
One cross-genre course: <ul style="list-style-type: none"> <li>• Fiction: MCW 479 Poetry for Prose Writers</li> <li>• Creative Nonfiction: MCW 479 Poetry for Prose Writers</li> <li>• Poetry: MCW 480 Prose Genres for Poets</li> </ul>	1
Two graduate-level literature courses. These literature courses may be taken from LIT, ENGLISH, COMP_LIT, MCW 490, or other departments of literary study. <sup>1</sup>	2
Three graduate-level elective courses. May not include more than two independent study courses. <sup>2</sup>	3
MCW 590 Thesis Research (see the SPS Graduate Handbook for guidelines) <sup>3</sup>	1
<b><i>Total required units:</i></b>	<b>10</b>

**Professional Graduate Series in Creative Writing (certificate)**

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

<sup>1</sup> Prior approval from the [academic coordinator](#) is required for registration in any courses offered by The Graduate School. No approval is necessary for enrollment in the following School of Continuing Studies master's courses: creative writing (MCW) or literature (LIT).

<sup>2</sup> Prior approval from the academic coordinator is required for registration in any courses offered by The Graduate School. No approval is necessary for enrollment in the following School of Continuing Studies master's courses: creative writing electives (MCW), literature (LIT), or liberal studies (IPLS).

<sup>3</sup> This course is now titled MCW 590 Capstone Writing and Revision.

**Creative Writing (MFA)  
Master of Fine Arts Degree Requirements**

<b>Courses</b>	<b>Units</b>
Seven workshops in one genre: <ul style="list-style-type: none"> <li>• Fiction: MCW 413 Studies in Fiction Writing (a.k.a. Fiction Workshop)</li> <li>• Creative Nonfiction: MCW 461 Studies in Writing Creative Nonfiction (a.k.a. Creative Nonfiction Workshop)</li> <li>• Poetry: MCW 411 Studies in Writing Poetry (a.k.a. Poetry Workshop)</li> </ul>	7 <sup>1</sup>
One cross-genre course: <ul style="list-style-type: none"> <li>• Fiction: MCW 479 Poetry for Prose Writers</li> <li>• Creative Nonfiction: MCW 479 Poetry for Prose Writers</li> <li>• Poetry: MCW 480 Prose Genres for Poets</li> </ul>	1
MCW 570 Seminar on Teaching Creative Writing	1
One of the following teaching or publishing courses: <ul style="list-style-type: none"> <li>• MCW 579 Practicum in Teaching Creative Writing</li> <li>• MCW 575 Journal Publishing</li> </ul>	1
Three graduate-level literature courses. These literature courses may be taken from LIT, ENGLISH, COMP_LIT, or other departments of literary study. <sup>2</sup> May not include more than two MCW 490 courses.	3
Three graduate-level elective courses. May not include more than two independent study courses. <sup>3</sup>	3
MCW 590 Thesis Research (must be registered for twice) (see the SPS Graduate Handbook for guidelines) <sup>4</sup>	2
<b><i>Total required units:</i></b>	<b>18</b>

<sup>1</sup> Students admitted during the 2008-2009 academic year are now required to take seven workshops, as the two registrations in MCW 495 Interdisciplinary Writing Studios are no longer required. Students who took MCW 495 Interdisciplinary Writing Studio may apply this credit to their workshop or elective requirement. Please contact your [graduate adviser](#) to officially apply any MCW 495 credits towards your degree.

<sup>2</sup> Prior approval from the [graduate adviser](#) is required for registration in any courses offered by The Graduate School. No approval is necessary for enrollment in the following School of Continuing Studies master's literature courses: literature (LIT).

<sup>3</sup> Prior approval from the [graduate adviser](#) is required for registration in any courses offered by The Graduate School. No approval is necessary for enrollment in the following School of Continuing Studies master's courses: creative writing electives (MCW), literature (LIT), or liberal studies (IPLS).

<sup>4</sup> Students who have not registered for their first MCW 590 by fall 2011 should register for MCW 589 Capstone Preparation and Writing and then MCW 590 Capstone Writing and Revision in a subsequent quarter.

**Liberal Studies  
Master of Arts Degree Requirements**

Courses	Units
<b>At least two of the following seminars:</b>	2
IPLS 401 Seminar in Liberal Studies I	
IPLS 402 Seminar in Liberal Studies II	
IPLS 403 Seminar in Liberal Studies III	
Graduate-level electives in humanities and related social sciences <sup>1</sup> ; may be applied toward a specialization (4 courses) in either: American Studies, History, Religious and Ethical Studies, or an individualized specialization	6
IPLS 590 Thesis Research (see the SPS Graduate Handbook for guidelines)	1
<b><i>Total required units:</i></b>	<b>9</b>

**Professional Graduate Series in Liberal Studies (certificate)**

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

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<sup>1</sup> Prior approval from the [academic coordinator](#) is required for registration in any courses offered by The Graduate School. No approval is necessary for enrollment in the following School of Continuing Studies master's courses: literature (LIT) and liberal studies (IPLS).

**Literature**  
**Master of Arts Degree Requirements**

<b>Courses</b>	<b>Units</b>
ENGLISH 410 <sup>1</sup> Introduction to Graduate Study	1
Four graduate-level literature courses (400-levels) <sup>2</sup>	4
Three electives in literature or related humanities <sup>3</sup> ; may be applied toward a specialization (4 courses) in either: American Literature, British Literature, Comparative and World Literatures, or an individualized specialization.	3
ENGLISH 590 <sup>4</sup> Thesis Research (see the SPS Graduate Handbook for guidelines)	
<b><i>Total required units:</i></b>	<b>9</b>

**Professional Graduate Series in Literature (certificate)**

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

<sup>1</sup> ENGLISH 410 is now called LIT 410

<sup>2</sup> Students may take up to 3 approved 300-level courses, which must carry graduate credit. Prior approval from the [academic coordinator](#) is required for registration. Prior approval from the [academic coordinator](#) is required for registration in any courses offered by The Graduate School.

<sup>3</sup> Prior approval from the [academic coordinator](#) is required for registration in any courses offered by The Graduate School.

<sup>4</sup> ENGLISH 590 is now called LIT 590



Medical Informatics – On Campus<sup>1</sup>  
 Master of Science Degree Requirements

Courses	Units
<b>Track Courses (as required upon admission)</b>	0-4
<i><b>Clinical Track</b></i>	
CIS 313 Telecommunications & Computer Networks <sup>2</sup>	
CIS 317 Introduction to Databases <sup>3</sup>	
<i><b>Technologist Entry Path</b></i>	
MED INF or MHI 401 American Health Care System	
MED INF or MHI 402 Introduction to Clinical Thinking	
<b>Core courses</b>	7
PUB HLTH 302 Introduction to Biostatistics	
MED INF or MHI 403 Introduction to Medical Informatics	
MED INF 404 Health Care Enterprise Operations or MHI 404 Health Care Organization Operations	
MED INF or MHI 405 Health Care Information Tech Integration & Standards	
MED INF or MHI 406 Decision Support Systems & Health Care	
MED INF or MHI 407 Legal, Ethical & Social Issues in Informatics	
MED INF or MHI 408 Medical Technology Acquisition & Assessment	
<b>Other Required Courses</b>	2-4
LEADERS 481 Foundations of Leadership	
MED INF or MHI 590 Thesis Research <sup>4</sup> (see the SPS Graduate Handbook for guidelines)	
Additional electives necessary to reach 11 unit requirement	
<b>Total required units:</b>	<b>11-13<sup>5</sup></b>

<sup>1</sup> No more classes will be offered on-campus for this program. Students should complete this program online.

<sup>2</sup> Now CIS 413 Telecommunications and Computer Networks

<sup>3</sup> Now CIS 417 Database Systems Design and Implementation. From fall 2011, this course is titled CIS 317 'Database Systems Design and Implementation.' All versions of these courses are considered equivalent.

<sup>4</sup> 08-09 students may take MED\_INF 498 'Capstone Project' in substitution for MED\_INF 590

<sup>5</sup> The minimum number of units required for the degree is 11. 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.

**Professional Graduate Series**

Medical Informatics	Units
any necessary track courses, determined by SPS	0-4
<b>Core Courses</b>	
MED_INF 403 Introduction to Medical Informatics	1
any three MED INF courses <sup>1</sup> (except 590 <sup>2</sup> )	3
<b><i>Total required units:</i></b>	<b>4-8</b>

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<sup>1</sup> Students may take any courses from the Medical Informatics curriculum with the exception of the capstone to satisfy this requirement.

<sup>2</sup> Students may not take MED\_INF 498 or MED\_INF 590 to count towards the Professional Graduate Series.

**Medical Informatics - Distance Learning  
Master of Science Degree Requirements**

<b>Courses</b>	<b>Units</b>
<b>Track Courses (as required upon admission)</b>	0-4
<i><b>Clinical Track</b></i>	
CIS 313-DL Telecommunications & Computer Networks <sup>1</sup>	1
CIS 317-DL Introduction to Databases <sup>2</sup>	1
<i><b>Technologist Track</b></i>	
MED INF or MHI 401-DL American Health Care System	1
MED INF or MHI 402-DL Introduction to Clinical Thinking	1
<b>Core courses</b>	
MED INF or MHI 403-DL Introduction to Medical Informatics	1
MED INF 404 Health Care Enterprise Operations or MHI 404 Health Care Organization Operations	1
MED INF or MHI 405-DL Health Care Information Tech Integration & Standards	1
MED INF or MHI 406-DL Decision Support Systems & Health Care	1
MED INF or MHI 407-DL Legal, Ethical & Social Issues in Informatics	1
MED INF or MHI 408-DL Medical Technology Acquisition & Assessment	1
MED INF or MHI 409-DL Biostatistics	1
<b>Other Required Courses</b>	
LEADERS 481-DL Foundations of Leadership <sup>3</sup>	1
<i>One of the following:</i>	1
MED INF or MHI 498-DL Capstone Project – <b>or</b> -	
MED INF or MHI 590-DL Thesis Research (see the SPS Graduate Handbook for guidelines)	
Additional health industry or CIS electives necessary to reach 11 unit requirement	0-2
<b>Total required units:</b>	<b>11-13<sup>4</sup></b>

<sup>1</sup> Now CIS 413 Telecommunications and Computer Networks

<sup>2</sup> Now CIS 417 Database Systems Design and Implementation. From fall 2011, this course is titled CIS 317-DL 'Database Systems Design and Implementation.' All versions of these courses are considered equivalent.

<sup>3</sup> Between fall 2009 and summer 2011 this course was titled MED\_INF 481-DL 'Foundations of Leadership.' All versions of this course are considered equivalents.

<sup>4</sup> The minimum number of units required for the degree is 11. 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

**Professional Graduate Series**

	<b>Units</b>
Medical Informatics	
any necessary track courses, determined by SPS	0-4
<b>Core Courses</b>	
MED_INF 403 Introduction to Medical Informatics	1
any three MED INF courses <sup>1</sup> (except 590 <sup>2</sup> )	3
<b><i>Total required units:</i></b>	4-8

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<sup>1</sup> Students may take any courses from the Medical Informatics curriculum with the exception of the capstone to satisfy this requirement.

<sup>2</sup> Students may not take MED\_INF 498 or MED\_INF 590 to count towards the Professional Graduate Series.

**Public Policy and Administration  
Master of Arts Degree Requirements**

<b>Courses</b>	<b>Units</b>
<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
MPPA 409 Applied Research and Writing	1
<b>Concentration area courses (choose four electives in one of these areas of concentration)</b>	<b>4</b>
<i>Health Services Policy</i>	
<i>Public Policy</i>	
<i>Public Safety and Security</i>	
<i>Urban Policy and Planning</i>	
<b>Other Required Courses</b>	
MPPA 590 Thesis Research (see the SPS Graduate Handbook for guidelines)	1
LEADERS 481 Foundations of Leadership	1
<b>Total Required Units</b>	<b>13</b>

**Professional Graduate Series Requirements**

**Please note: overlapping courses may count toward one PGS only**

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

Urban Policy and Administration	<b>Units</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>	7
QARS 401 Regulation and Quality Systems	
QARS 405 Applied Research and Writing	
QARS 410 Introduction to Statistical Methods <sup>1</sup>	
QARS 420 Practical Laboratory Management (a.k.a. Practical Quality 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>	2
Any two elective courses	
<b>Other Required Courses</b>	2
LEADERS 481 Foundations of Leadership	
QARS 590 Capstone Project (see the SPS Graduate Handbook for guidelines)	
<b>Total required units:</b>	<b>11</b>

**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>

<sup>1</sup> CLIN\_RES 409 'Introduction to Biostatistics' and MED\_INF 409-DL 'Introduction to Biostatistics' both substitute for this requirement.

**Sports Administration  
Master of Arts Degree Requirements**

<b>Courses</b>	<b>Units</b>
<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
MSA 403 Management and Organization of Sports	1
MSA 404 Principles of Sports Finance & Accounting <sup>1</sup>	1
MSA 405 Legal & Ethical Issues in Sports Management	1
MSA 406 Sports Risk Management (a.k.a. Sports Risk and Crisis Management) <sup>2</sup>	1
<b>Concentration area courses (choose two electives in one of these areas of concentration) <sup>3</sup></b>	<b>2</b>
<i>Sports Management</i>	
<i>Sports Marketing &amp; Public Relations</i>	
<b>Other Required Courses</b>	
LEADERS 481 Foundations of Leadership	1
MSA 590 Thesis Research or Practicum <sup>4,5</sup> (see the SPS Graduate Handbook for guidelines)	1
<b><i>Total required units:</i></b>	<b>11</b>

<sup>1</sup> As of Fall 2014, MSA 404 is titled Sports Business: Finance, Accounting and Economics

<sup>2</sup> As of Fall 2014, MSA 406 is titled ‘Sports Public Relations and Crisis Management’

<sup>3</sup> Students admitted prior to Fall 2014 should petition to take any available electives to meet their specific program track requirements

<sup>4</sup> The Practicum is no longer offered. All MSA students should complete either MSA 590 or MSA 498.

<sup>5</sup> MSA 498 ‘Capstone Class’ may substitute for this requirement.

**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>