

Drexel University  
CATALOG 2011-2012

**Table of Contents**

**The College of Arts and Sciences Graduate Programs**

About the College of Arts and Sciences ..... 3  
The English Language Center ..... 4

**Biological Sciences**  
MS in Biological Sciences ..... 5  
PhD in Biological Sciences ..... 7

**Chemistry** ..... 9  
MS in Chemistry ..... 11  
PhD in Chemistry ..... 13

**Communication** ..... 14  
MS in Communication ..... 15

**Communication, Culture and Media**  
PhD in Communication, Culture and Media ..... 17

**Environmental Policy**  
MS in Environmental Policy ..... 21

**Environmental Science** ..... 24  
MS in Environmental Science ..... 26  
PhD in Environmental Science ..... 27

**Law-Psychology**  
JD/PhD Law-Psychology ..... 29

**Mathematics** ..... 34  
MS in Mathematics ..... 36  
PhD in Mathematics ..... 37

**Physics** ..... 38  
MS in Physics ..... 40  
PhD in Physics ..... 41

**Psychology**  
MS in Psychology ..... 44  
PhD in Psychology: Clinical Psychology ..... 46  
PhD in Psychology: Applied Cognitive and Brain Science ..... 51  
JD/Doctoral Program in Law-Psychology ..... 54

**Public Policy**  
MS in Public Policy ..... 59

**Publication Management**

MS in Publication Management ..... 62

**Science, Technology and Society**

MS in Science, Technology and Society ..... 66

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## The College of Arts and Sciences

### Mission Statement

By pursuing excellence in research and scholarship, we educate our students to become ethical professionals and citizens with knowledge of and appreciation for the fundamental interactions among the humanities, social sciences and sciences in a fast-changing, challenging, and diverse world.

### About the College of Arts and Sciences

The College of Arts and Sciences was established on July 1, 1990, with the merger of the College of Sciences and the College of Humanities and Social Sciences. The educational objectives of the College encompass a wide range of goals: to provide general educational courses for the University's undergraduates; to provide interdisciplinary study in the arts and sciences for our Bachelor of Science and Bachelor of Arts majors; to offer Master of Science and Doctoral programs in selected areas of faculty and research strength; to promote research, scholarship, and creative activities which expand disciplinary boundaries and enhance faculty expertise and the quality of the University's instruction; and to improve the quality of life for the University's community through co-curricular programming in the arts and sciences.

For additional information, visit the [the College of Arts and Sciences website](#).



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## The English Language Center

As part of the College of Arts and Sciences, [Drexel's English Language Center](#) offers an intensive English program throughout the year. In addition to classes in academic skills such as essay writing and oral presentations, the Center offers courses in business English, English for academic purposes, computer skills in English, TOEFL preparation, and other subjects. Many graduate students begin their studies at Drexel in the English Language Center, particularly if they do not meet minimum TOEFL requirements (see the Special Language Enhancement Program, described below).

Interested applicants may contact the English Language Center at ; fax: 215-895-6775; e-mail: [elc@drexel.edu](mailto:elc@drexel.edu)

### The Special Language Enhancement Program

Students who have good academic qualifications but whose TOEFL scores are below the minimum required by their department may be accepted to Drexel through the Special Language Enhancement Program (SLEP). The program includes English language study, Drexel courses, and academic advising.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Biological Science

45.0 quarter credits

### Degree Requirements

Soon after matriculation the student completes a plan of study with the advisor, outlining his or her specific program. Both thesis and non-thesis options are available. Conducting formal research necessary for the thesis is dependent upon the student finding a faculty member whom will serve as their Faculty Advisor and supervise a mutually agreed upon research project.

Students wishing to pursue PhD candidacy are encouraged to elect the MS with thesis. After all other requirements are completed, the research MS student defends the thesis at a final oral examination. The nonthesis student takes a comprehensive examination.

#### Requirements for the MS Curriculum with Thesis 45.0 Credits

BIO 500	Biochemistry	3.0
BIO 532	Advanced Cell Biology	3.0
BIO 540	Readings in Molecular and Cellular Biology	3.0
BIO 635	Advanced Genetics & Molecular Biology	3.0
BIO 679	Issues in Scientific Research	3.0
BIO 997	Research in Bioscience	9.0
ENVS 506	Biostatistics	3.0
NFS 601	Research Methods	3.0
	Bioscience (BIO) or Environmental Science (ENVS) electives	15.0

#### Requirements for the Non-thesis MS Curriculum 45.0 Credits

BIO 500	Biochemistry	3.0
BIO 532	Advanced Cell Biology	3.0
BIO 635	Advanced Genetics & Molecular Biology	3.0
BIO 679	Issues in Scientific Research	3.0
ENVS 506	Biostatistics	3.0
	Bioscience (BIO) or Environmental Science (ENVS) electives*	30.0

\*Non-thesis students may elect to take up to 4 credits of BIO 997 Research in Bioscience.

#### Bioscience electives include:

BIO 530	Microbial Genetics	5.0
---------	--------------------	-----



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

BIO 566	Endocrinology	4.0
BIO 610	Biochemistry of Metabolism	3.0
BIO 615	Proteins	3.0
BIO 620	Biomembranes	3.0
BIO 625	Nucleic Acids	3.0
BIO 631	Bioinformatics I	3.0
BIO 644	Human Genetics	3.0
BIO 646	Stem Cell Research	3.0
BIO 649	Recombinant DNA Laboratory	5.0
BIO 650	Virology	3.0
BIO 663	Molecular Mechanics of Neurodegeneration	3.0
BIO 670	Medical Microbiology	3.0
BIO 675	Advanced Immunology	3.0
BIO 680	Special Topics: Parasitology	3.0
BIO 680	Special Topics: Biology of Neuron Function	3.0





# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Doctoral Program in Biological Sciences

The Doctor of Philosophy in Biological Sciences is conferred in recognition of breadth of scholarship and scientific attainment plus demonstrated ability to complete original research.

The following general requirements must be satisfied in order to complete the PhD in Biological Sciences:

- 90 (post-bac) or 45 (post-MS) credit hours total
- establishing a plan of study
- 7 core courses
- additional courses dependent on advisor or committee recommendations
- candidacy exam/approval of dissertation proposal
- dissertation/thesis
- defense of dissertation/thesis
- a graduate research seminar presentation once a year for second, third, and fourth-year students.

### Thesis Advisor/Plan of Study

For students admitted without an identified Thesis Advisor, the Thesis Advisor must be selected by the end of Winter term in the first year. All students are asked to submit a Plan of Study (that has been agreed upon by Thesis Advisor and student) by the end of Winter term first year. It is anticipated that the graduate coursework will be completed during the first two years or less.

### Curriculum

Students take the following seven (7) core requirement courses: **21.0 Credits**

BIO 500	Biochemistry I	3.0
BIO 532	Advanced Cell Biology	3.0
BIO 540	Readings in Molecular & Cellular Biology	3.0
BIO 601	Research Methods	3.0
BIO 635	Advanced Genetics	3.0
BIO 679	Issues in Scientific Research	3.0
ENVS 506	Biostatistics	3.0

For a list of electives, visit the [Graduate Biology](#) course descriptions.

### Candidacy Examination

The function of the Candidacy Examination is to test the breadth and the depth of the student's capabilities in their chosen area of study. The graduate student becomes a PhD Candidate only after successfully completing the Candidacy Examination and completing 15 or 45 credits (for post-master's or post-bachelor's degree students, respectively). The candidacy exam is comprised of three parts whose order will be determined by the Candidacy Committee: written examination, dissertation research proposal, and oral examination.

Students entering the program with a Master's degree are expected to complete the candidacy examination by the end of the summer quarter of their first year. Students entering the PhD program with a Bachelor's degree are expected to complete this examination by the end of the summer quarter of their second year.

### Thesis /Dissertation and Defense of Thesis/Dissertation

The student will finalize their Dissertation only after approval to write is granted by the Dissertation Research Committee. Approval is based upon an evaluation of the breadth and depth of original research being conducted by the student. The



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

dissertation must follow the format specifications set forth in the Drexel's Office of Research and [Graduate Studies](#). Research conducted for the Dissertation must be presented in a lecture open to the public and then defended, privately, before the student's Dissertation Research Committee.

**Sample Sequence/Sample Plan of Study**

**First Year**

<b>Fall</b>		<b>Credits</b>
BIO 500	Biochemistry I	3.0
BIO 532	Advanced Cell Biology	3.0

**Winter**

BIO 540	Readings in Molecular & Cellular Biology	3.0
BIO 635	Advanced Genetics	3.0

**Spring**

BIO 601	Research Methods	3.0
ENVS 506	Biostatistics	3.0

**Second Year**

**Fall**

BIO 679	Issues in Scientific Research	3.0
	Elective	3.0

**Winter and Spring**

BIO 620	Electives and/or research determined by advisor or committee	
---------	--	--

Contact the [Department of Biology](#) at for more information.





# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

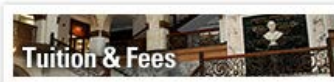
## Chemistry

### About the Program

The [Chemistry Department](#) offers graduate programs in analytical chemistry, atmospheric chemistry, inorganic chemistry, organic chemistry, materials chemistry, physical chemistry, educational chemistry, and polymer chemistry. The department also encourages interdisciplinary activities. Faculty members are active participants in the environmental engineering and science and biomedical science and engineering programs; others work with physicists and biologists in areas such as atmospheric science, biochemistry, and biophysical chemistry.

The chemistry faculty wants graduate students to understand the purpose of, and need for, fundamental research while working on problems of practical interest and application to the challenges facing mankind in the modern world. Areas of research include the use of digital electronic methods to analyze trace constituents of air and water, a study of the molecules of living systems, the effects of toxic chemicals and carcinogens, synthesis and characterization of compounds of medicinal and industrial interest, methods for studying macromolecules, and characterization of transient species using lasers.

The Chemistry Department strives to maintain a community of research scholars (faculty, postdoctoral fellows, and graduate and undergraduate students) that is large enough to provide a variety of experiences within chemistry, yet small enough to give each student individual attention. Both full- and part-time study are available.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Chemistry

### Requirements for Admission

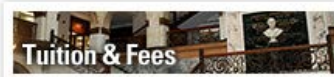
For admission to graduate study, the department requires a BS in chemistry or the equivalent. This requirement applies to full-time and part-time students working toward either the MS or the PhD degree. All entering MS and PhD students are required to take a series of two-hour exam in analytical, inorganic, organic, and physical chemistry to help assess their preparation for graduate work in chemistry. The scores obtained on these exams are used as a basis for course selection.

It is strongly recommended that students submit Graduate Record Examination (GRE) results with their application. GRE scores are helpful to the Chemistry Department and the Office of Admissions, and are required for those students requesting financial support, i.e., a teaching assistantship (TA) and/or would like to be considered for a Dean's Scholarship or a Provost's Fellowship.

### Financial Assistance

Graduate students at Drexel can obtain two main types of financial support: teaching assistantships and research assistantships. Teaching assistantships are available on a competitive basis to incoming students and are normally renewable for several years. All those requesting financial assistance must submit GRE scores.

Forms, details about requirements, and information about application deadlines are all available on the the [Chemistry](#) page of Drexel's Graduate Admissions website.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Chemistry

### Degree Requirements

The MS degree is awarded after satisfactory completion of a minimum of 45 credit hours in chemistry and related fields, at least 30 credits of which must be taken at Drexel. Both thesis and nonthesis options are available.

#### Course Requirements

The course requirements for both thesis and nonthesis options are one complete sequence in the major area of interest; one of the sequence courses from each of analytical, organic, polymer, and inorganic chemistry; and two courses in physical chemistry. The remaining credits may be chosen from graduate courses within the department or from other departments offering courses related to the student's major areas.

**Major sequence (choose one of the following):** **9.0 Credits**

<a href="#">CHEM 521</a>	Inorganic Chemistry I	3.0
<a href="#">CHEM 522</a>	Inorganic Chemistry II	3.0
<a href="#">CHEM 523</a>	Inorganic Chemistry III	3.0

or

<a href="#">CHEM 530</a>	Analytical Chemistry I	3.0
<a href="#">CHEM 531</a>	Analytical Chemistry II	3.0
<a href="#">CHEM 755</a>	Mass Spectrometry	3.0

or

<a href="#">CHEM 541</a>	Organic Chemistry I	3.0
<a href="#">CHEM 542</a>	Organic Chemistry II	3.0
<a href="#">CHEM 543</a>	Organic Chemistry III	3.0

or

<a href="#">CHEM 557</a>	Physical Chemistry I	3.0
<a href="#">CHEM 558</a>	Physical Chemistry II	3.0
<a href="#">CHEM 555</a>	Quantum Chemistry I	3.0

or

<a href="#">CHEM 561</a>	Polymer Chemistry I	3.0
<a href="#">CHEM 562</a>	Polymer Chemistry II	3.0
<a href="#">CHEM 563</a>	Polymer Chemistry III	3.0

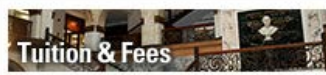
Additional sequence courses\* **15.0**

Electives **21.0**

\*One of which must be chosen from the following: CHEM 555 (Quantum Chemistry I) or CHEM 557 (Physical Chemistry I).

#### Thesis Option

Up to 9 credits of coursework may be replaced by either CHEM 997 or by sections of CHEM 680 involving laboratory research. No later than the spring term of the first year of coursework, a student should choose a research advisor with whom to work in carrying out an original investigation in chemistry. The results will be written up in thesis form and submitted to an MS thesis committee consisting of the research advisor and two other departmental faculty appointed by the advisor. The acceptance by this committee of the MS thesis completes the thesis option requirements for the MS degree. Students in the MS program receiving financial aid from the department must elect the thesis option if they do not



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

pursue the PhD program at Drexel.



**Drexel University**  
Copyright © 2011. All rights reserved.

3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu) •

# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Doctoral Program in Chemistry

### Degree Requirements

The PhD degree is awarded in any of eight main areas of chemistry: analytical, atmospheric, inorganic, organic, materials, physical, educational or polymer chemistry. The degree recipient must demonstrate scholastic breadth in chemistry and contribute significantly to scientific advancement in a chosen major area. Requirements of the program include coursework, candidacy examinations, a chemical information retrieval or technical writing course, and successful completion of a publishable PhD thesis.

#### Course Requirements

Ninety credits of graduate-level work must be completed for the PhD degree. The Chemistry Department requires 30 credits of coursework in chemistry (outlined in the [Course Requirements](#) section of the MS program). The balance can be made up of advanced special topics courses and research credits.

#### Candidacy Requirements

To become a candidate for the PhD in chemistry at Drexel, a student must pass a prescribed set of cumulative examinations.

#### Cumulative Examinations

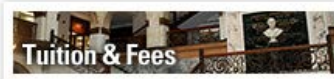
Written examinations designed to test a student's background in his or her major area are given monthly during the academic year and occasionally during the summer at the discretion of the faculty. Students should begin taking these examinations after having completed three courses in the major area (usually the main sequence courses), though beginning these exams earlier is possible for well-prepared students. Students normally begin taking these examinations in the fall term of their second year.

#### Research Seminar

The literature review seminar is designed to help the student conduct his/her research more efficiently by (i) promoting a greater fundamental understanding about the student's own specific research project and (ii) providing context and perspective about previous accomplishments in the field by other research groups as well as her/his own. The subject of the seminar will be related to but broader than that of the thesis research. The examination at which the research seminar is defended is held no later than the end of the **winter** term of the **second** year for **full-time** students or the end of the **spring** term of the **second** year for **part-time** students. A written report is submitted to the committee no later than two weeks before the examination. A passing grade on this examination is required for continuation in the PhD program.

#### Thesis

A PhD thesis — the heart of the PhD degree — must be written, accepted by the research supervisor, presented to a PhD Thesis Examining Committee, and defended orally to the satisfaction of the Examining Committee. It is the responsibility of the student, not the research supervisor, to submit an acceptable thesis. It is expected that the students will have at least one peer-reviewed research article accepted for publication by the time of the thesis defense.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)





# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Requirements for Admission

### MS in Communication

Applicants must meet the general requirements for admission to graduate studies. Applicants with a GPA below 3.0 must provide scores from the Graduate Record Examination. Prospective students must also submit with their applications a 1,500-word statement explaining why they want to enter the program. The program's screening committee carefully reads the essays to evaluate each applicant's writing skills and sense of purpose.

The program accommodates students from both science and humanities backgrounds. Some students pursue their degrees while already working in technical or scientific fields; others are new to the field. For students without appropriate prior work experience, the program features a 6-month internship.

### PhD in Culture, Communication and Media

Applicants will be evaluated by the Department's Graduate Committee for admission to the program. Prospective students must submit with their application:

- a 1,500 word statement of purpose
- three letters of recommendation
- transcripts of all college-level coursework
- GRE scores
- for international students where English is not the official language, TOEFL or other English language proficiency scores are also required. For more information regarding international applicant requirements, view the [International Students Admissions Information](#) page.

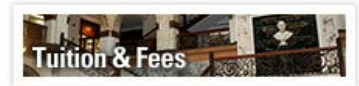
Minimum criteria include:

- Completion of a BA or BS degree in an appropriate field
- GPA of 3.0 or higher (preferred GPA 3.5 for courses in the major)
- For international students, a TOEFL score of 700 (100 iBT) or equivalent.

Students entering the program with a Master's degree or with some graduate credit will be evaluated by the Graduate Committee as to how many of their courses could possibly be counted toward the PhD

Students entering with an MS in an appropriate field are required by the university to take a minimum of 15 credit hours in the PhD program before being eligible to take qualifying exams.

For additional information on how to apply to either of these programs, visit the Drexel University [Requirements for Admissions](#) page.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Communication

### About the Program

Drexel's Master of Science in Communication prepares students for careers in a wide range of professional activities. The program specializes in three areas: technical communication, science communication, and public communication. Technical communication is for those seeking employment as technical writers, computer documentation specialists, and training specialists. Science communication has much to offer those who aspire to medical, science, and pharmaceutical writing. A concentration in public communication leads to careers in journalism and public relations. In addition, the program provides a strong foundation in theoretical approaches to communication. This theoretical basis is designed to ensure that, as the field changes, students will continue to have an intellectual framework for evaluating and implementing new technology and changing media.

Students can attend full time or part time, they can begin the program in any academic quarter, and they can complete all coursework in the evening. The program emphasizes flexibility, encouraging each student, in consultation with a faculty advisor, to fashion a particular course of study.

The program accommodates students from widely varying educational backgrounds: Many have backgrounds in science and mathematics; an equal number come from humanities-related areas. Some students pursue their degrees while already at work at demanding jobs in technical or scientific fields; others are new to the field.

### Requirements

The MS degree requires 45 credits of coursework, a professional portfolio of three to five items developed by the student, and six months of internship for those who lack significant experience in communication related fields.

### Portfolio

As a final graduation requirement, each student must submit a professional exit portfolio. Based on coursework and professional assignments, the portfolio undergoes a rigorous process of review by faculty members and by a professional outside the university.

### Internship

Students who need professional experience consult with their advisors and the program director to develop a suitable internship. Normally, this placement begins after the student has completed at least half the required coursework. Students who already have the equivalent of six months of professional experience or who gain the equivalent by working part time during their course of study can request exemption from this requirement.

### Curriculum

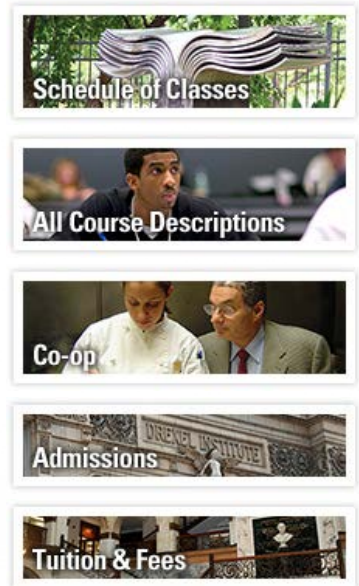
Students may use electives to increase communication skills, to broaden theoretical backgrounds, or to develop areas of specialization. Any appropriate graduate course offered in the University can serve as an elective if the student has sufficient background to take the course. In addition, the program offers its own elective courses including special topics (COM 690). Qualified students may also pursue independent study for elective credit in special cases.

Core Courses		Credits
COM 500	Reading and Research in Communication	3.0
COM 610	Theories of Communication and Persuasion	3.0

### Concentrations

#### Technical Communication

COM 510	Technical Writing	3.0
COM 570	Technical and Science Editing	3.0



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



COM 620	Message Design and Evaluation	3.0
COM 630	Developing Software Documentation	3.0
COM 875	Ethics in Technical and Science Communication	3.0
	Electives	24.0

#### Science Communication

COM 520	Science Writing	3.0
COM 570	Technical and Science Editing	3.0
COM 620	Message Design and Evaluation	3.0
COM 670	Medical Writing	3.0
COM 875	Ethics in Technical and Science Communication	3.0
	Electives	24.0

#### Public Communication

COM 635	Electronic Publishing	3.0
COM 650	Telecommunications Policy	3.0
COM 660	Investigative Journalism	3.0
COM 680	Public Relations Strategies	3.0
COM 880	Seminar: Ethics for Public Communication	3.0
	Electives	24.0



# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## PhD in Communication, Culture and Media

90.0 credits.

### Degree Requirements

The PhD requires a minimum of 90.0 credits beyond a Bachelor's degree, including 45.0 credit hours of coursework prior to taking qualifying exams, 15.0 credit hours of coursework after exams, and 30.0 hours of research credits.

The PhD coursework is structured around a set of required core courses, a set of required seminars with rotating topics, and electives in graduate communication lecture courses, independent study work, and dissertation credit.

All students in the program take five common core courses. They then take no less than five courses chosen from the Culture and Communications (COM) seminar offerings. Students are encouraged to take additional seminars after meeting that requirement, since seminar courses enable collaborative relationships with professors and introduce students to the scholarly community.

After completing the core requirements and a sequence of seminars, students are expected to take a minimum of 10 additional courses from existing graduate level lecture courses (depending on their interests and research needs). Students may take up to two graduate courses (six credits) outside the department. Additional credits to meet the 90.0 credit requirements will come from independent study and dissertation credits.

Student advising will include appointments with both graduate director and an assigned mentor during the first two weeks of fall courses, where an individualized plan of study (University form D1) will be completed and approved by the program director.

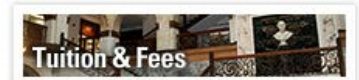
### Core Courses 15.0 Credits

COM 701	Contemporary Social Theory	3.0
COM 702	Communication Theory I	3.0
COM 703	Communication Theory II	3.0
COM 704	Research Methods in Communication	3.0
COM 705	Statistical Data Analysis in Communication	3.0

### Seminars 15.0 Credits

There are five categories of seminar: one in which students learn advanced work and influences on a specific theorist or theoretical school; one in which students learn about theories of language, discourse and the sign; one that teaches the paradigm of structural dynamics central to social sciences theory and research; one in which students study a research methods approach; and one that deals with approaches to research ethics. Students must take a seminar in each area (COM 801 through 805). Seminars can be repeated, with a maximum of three courses taken in each area, as long as the subject covered is different each time:

COM 801	Seminar in Contemporary Theory	3.0
COM 802	Seminar in Discourse and Semiotics	3.0
COM 803	Seminar in Structural and Cultural Dynamics	3.0
COM 804	Seminar in Research Methods	3.0



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

COM 805	Seminar in Communication Ethics	3.0
---------	---------------------------------	-----

**Communication Lecture Electives 30.0 Credits**

Ten courses are required, for a total of 30.0 credit hours of electives. These may be chosen from COM 500 to 800 level courses, including 800 level seminars that are a different topic from earlier courses taken.

**Dissertation Credits//Additional Electives\* 30.0 Credits**

\*Students may take up to two graduate-level courses outside of the Department of Culture and Communication.

COM 799	Independent Study	
---------	-------------------	--

For the dissertation, students work with a principal advisor, one of the Culture and Communication Department faculty, and no less than two additional faculty from within the department. Students must find one additional outside reader, and students may bring in up to two outside readers.

**Qualifying Examinations**

After students have completed 45.0 credits, which will usually be at the end of their 6th term, they will be required to take a qualifying examination. The qualifying exam will be offered at the end of June and will be composed of three parts, theory, methods and a content area. Students will be given the grade of fail, pass or high pass on the exam. A grade of pass in all three sections of the exam will be required to qualify for the PhD. Students who do not pass one out of three sections of the exam on the first attempt may retake the section that they failed one time to qualify for the PhD. If they do not pass the second time they take the failed section of the exam they will be dismissed from the program. When a student passes all three sections of the exam, the proper paperwork will be filed with the university graduate office and they will be advanced to candidacy.

**Sample Curriculum Sequence**

**First Year**

*Fall Term*

COM 701	Contemporary Social Theory	3.0
COM 704	Research Methods in Communication	3.0

*Winter Term*

COM 702	Communication Theory I	3.0
COM 705	Statistical Data Analysis in Communication	3.0

*Spring Term*

COM 703	Communication Theory II	3.0
COM 805	Seminar in Communication Ethics	3.0

**Summer Term**

---

COM 803	Seminar in Structural and Cultural Dynamics	3.0
---------	---	-----

---

COM 804	Seminar in Research Methods	3.0
---------	-----------------------------	-----

---

**Second Year**

**Fall Term**

---

COM 803	Seminar in Structural and Cultural Dynamics	3.0
---------	---	-----

---

COM 802	Seminar in Discourse and Semiotics	3.0
---------	------------------------------------	-----

---

**Winter Term**

---

COM 801	Seminar in Contemporary Theory	3.0
---------	--------------------------------	-----

---

	Electives	6.0
--	-----------	-----

---

**Spring Term**

---

COM 804	Seminar in Research Methods	3.0
---------	-----------------------------	-----

---

	Elective	3.0
--	----------	-----

---

**June of Second Year: Qualifying Exams (after a minimum of 45.0 credit hours and prior to a maximum of 54.0 credit hours)**

---

**Third Year**

**Fall Term**

---

COM 803	Seminar in Structural and Cultural Dynamics	3.0
---------	---	-----

---

	Electives	6.0
--	-----------	-----

---

**Winter Term**

---

	Electives	9.0
--	-----------	-----

---

**Spring Term**

---

COM 799	Independent Study	3.0
---------	-------------------	-----

---

	Electives	6.0
--	-----------	-----

---

**Summer Term**

---

COM 799	Independent Study	3.0
---------	-------------------	-----

---

	Elective	3.0
--	----------	-----

---

**Fourth Year**

**Fall Term**

---

COM 799	Independent Study	6.0
	Elective	3.0

*Winter Term*

COM 799	Independent Study	6.0
---------	-------------------	-----

**Dissertation Proposal Defense**

**Fifth Year**

Dissertation credits

Dissertation Defense: Students should defend the dissertation and graduate towards the end of their fifth year, during either the spring or summer quarters.

Visit the [Department of Culture and Communication](#) web site for more information.



**Drexel University**  
Copyright © 2011. All rights reserved.

3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Environmental Policy

### About the Program

The graduate program in Environmental Policy prepares students for careers as policy analysts who have a strong commitment to environmental values, are scientifically and methodologically competent, and can work effectively in the democracy policy process with the various groups and institutions engaged in environmental issues.

To meet these requirements, students must complete a range of coursework designed to teach:

- knowledge of how policies are developed and implemented
- scientific and engineering basis of effective environmental policies
- an understanding of who the key players are in environmental politics, and how to work with them to accomplish environmental improvements.

For more information about this program, visit the College's [MS in Environmental Policy](#) page, or contact:

Robert Stokes, PhD  
Coordinator, Environmental Studies Program  
[bob.stokes@drexel.edu](mailto:bob.stokes@drexel.edu)



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



# Drexel University CATALOG 2011-2012

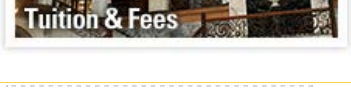
COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Environmental Policy

### Requirements for Admission

In addition to the general entrance requirements for all applicants, entrance to the MS Program in Environmental Policy requires a Bachelor's degree in Environmental Science, or in the natural, physical, or social sciences, or related engineering disciplines, along with additional course work as specified in the table below. Students entering from other programs at Drexel University or other institutions may be required to complete additional course work to meet the course prerequisites for the required courses.

For additional information on how to apply, visit Drexel's Admissions page for [Environmental Policy](#).



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)





# Master of Science in Environmental Policy

## Curriculum

**Core Courses** **9.0 Credits**

ENVS 501	Chemistry of the Environment	3.0
ENVS 506	Biostatistics	3.0
ENVS 511	Evolutionary Ecology	3.0
or		
ENVS 521	Environmental Health	3.0

**Required Specialization Courses in Environmental Policy** **27.0 Credits**

ENVP 522	Environmental Law	3.0
ENVP 523	Environmental Regulations	3.0
ENVP 650	Resource and Environmental Economics	3.0
ENVP 720	Environmental Cost Benefit Analysis and Valuation	3.0
ENVP 760	Social Change & Environmental Movements	3.0
ENVP 771	Theory and Practice of Environmental Policy Analysis	3.0
ENVP 772	Methods of Environmental Policy Analysis	3.0
ENVP 773	Practicum in Environmental Policy Analysis	3.0
ENVP 774	Economic Analysis of Environmental Policy	3.0

**Recommended Electives** **9.0 Credits**

ENVP 570	International Environmental Policy	3.0
ENVP 880	Environment and Society	3.0
ENVP 865	Special Topics in Environmental Policy	3.0

### Plan of Study

Within the first quarter of study, a student must meet with an assigned advisor and work out a plan of study. An example plan of study form can be viewed on the [Master of Science in Environmental Policy](#) web page.



**LEARN MORE**

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Graduate Study in Environmental Science

### About the Program

Environmental science is a multidisciplinary field in which we try to understand environmental problems and find solutions to them. This field requires understanding of a number of disciplines, including biology, chemistry, hydrology and climatology.

The environmental science program was created to focus on the need for scientists to aid in the development of local, national, and international environmental policy.

MS areas of concentration include: ecology, environmental assessment, environmental biotechnology, environmental risk management, paleoecology-geology, and toxicology and industrial hygiene. A student may alternatively craft a specialized plan of study outside of these strength areas under the guidance of an academic advisor.

The master's degree may be completed with either a thesis or non-thesis option. Those choosing to prepare a thesis must complete 45 credits (including 6 - 9 credits awarded for the thesis). Students choosing the non-thesis option must complete coursework totaling 48 credits. Most courses carry three credits.

Susan Cole is the Graduate Coordinator for Environmental Science. Susan Cole can be reached by telephone at or e-mail at [coless@drexel.edu](mailto:coless@drexel.edu). Her office is located in Room 109 of Disque Hall.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Environmental Science

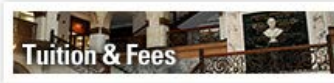
### Requirements for Admission

In addition to the general entrance requirements for all applicants, entrance to the MS Program in Environmental Science requires a Bachelor of Science degree in science, mathematics, or engineering. Minimally, students must have completed a year of calculus, general biology, general chemistry, physics, and, preferably, a semester of organic chemistry.

### PhD Program

Applicants to the doctoral program are judged on the basis of academic excellence and the alignment of their research interests with those of the faculty in the department. Prospective PhD student are welcome to contact the program to discuss their research interests.

Additional information about how to apply is available on the [Graduate Admissions at Drexel University](#) website.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Environmental Science

45.0 quarter credits

### Curriculum

The MSES degree requires three core courses that form the basis for further specialization. Students choose to complete the remainder of the program with an area of specialization and/or elective course options. Areas of specialization allow students to gain more depth in a particular area of interest. If student interest is not specifically addressed in any one area of specialization, elective courses may be used to build up an individualized plan of study. The program requires a total of 48 credits for non-thesis students and 45 credits for thesis students.

Core Courses		9.0 Credits
ENVS 501	Chemistry of the Environment	3.0
ENVS 506	Biostatistics	3.0
ENVS 511	Evolutionary Ecology	3.0

### Areas of Specialization and Electives

Students may choose an area of specialization in ecology, environmental assessment, paleoecology-geology or design a unique plan of study in consultation with faculty combining one or more areas of interest. Students interested in applying their background in environmental science to environmental regulation or economics may also take electives in Environmental Policy.



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)



## Doctoral in Environmental Science

The following general requirements must be satisfied in order to complete the PhD in Environmental Science:

- 90 (post-bac) or 45 (post-MS) credit hours total
- qualifying exam
- establishing a plan of study
- 3 core courses recommended, not required
- additional courses dependent on advisor or committee recommendations
- candidacy exam/approval of dissertation proposal
- dissertation/thesis
- defense of dissertation/thesis
- a graduate research seminar presentation once a year for second, third, and fourth-year students.

### Thesis Advisor/Plan of Study

For students admitted without an identified Thesis Advisor, the Thesis Advisor must be selected by the end of Winter term in the first year. All students are asked to submit a Plan of Study (that has been agreed upon by Thesis Advisor and student) by the end of Winter term first year. It is anticipated that the graduate coursework will be completed during the first two years or less. Generally there is no prescribed coursework -- students must take courses needed to complete their research under guidance of an faculty advisor.

### Curriculum

The following courses are recommended, but not required:

ENVS 501	Chemistry of the Environment	3.0
ENVS 506	Biostatistics	3.0
ENVS 511	Evolutionary Ecology	3.0

For a list of electives, visit the [Graduate Environmental Science](#) course descriptions.

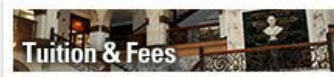
### Candidacy Examination

The function of the Candidacy Examination is to test the breadth and the depth of the student's capabilities in their chosen area of study. The graduate student becomes a PhD *Candidate* only after successfully completing the Candidacy Examination and completing 15 or 45 credits (for post-master's or post-bachelor's degree students, respectively). The candidacy exam is comprised of three parts whose order will be determined by the Candidacy Committee: written examination (or qualifying exam), dissertation research proposal, and oral examination.

Students entering the program with a Master's degree are expected to complete the candidacy examination by the end of the summer quarter of their first year. Students entering the PhD program with a Bachelor's degree are expected to complete this examination by the end of the summer quarter of their second year.

### Thesis /Dissertation and Defense of Thesis/Dissertation

The student will finalize their Dissertation only after approval to write is granted by the Dissertation Research Committee. Approval is based upon an evaluation of the breadth and depth of original research being conducted by the student. The dissertation must follow the format specifications set forth in the Drexel's Office of Research and [Graduate Studies](#). Research conducted for the Dissertation must be presented in a lecture open to the public and then defended, privately, before the student's Dissertation



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Research Committee.

**Sample Sequence/Sample  
Plan of Study**

<b>First Year</b>		
<b>Fall</b>		<b>Credits</b>
ENVS 501	Chemistry of the Environment (If applicable)	3.0
	ENVS elective	3.0
<b>Winter</b>		
ENVS 511	Evolutionary Ecology (if applicable)	3.0
	ENVS elective	3.0
<b>Spring</b>		
ENVS 506	Biostatistics (if applicable)	3.0
	ENVS elective	3.0
<b>Second Year</b>		
Electives and/or research as determined by Thesis Advisor and committee.		

Contact the [Department of Biology](#) at for more information.



# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Joint JD/PhD Law-Psychology Program

The Earle Mack School of Law and the Department of Psychology in the College of Arts and Sciences offer a joint and integrated JD/PhD Program in Law and Psychology. The program melds two already ongoing successful endeavors, the JD degree in the School of Law and the PhD in clinical psychology in the Department of Psychology.

Students in the program complete all 85 credits required for graduation from the law school and all 91 credits required to complete the doctorate. The program allows those students who wish to pursue professional degrees in both law and psychology a more efficient plan of study. The program is designed to be completed in seven (7) years, including required psychology practica, a year's internship in an American Psychological Association accredited predoctoral mental health/forensic setting, a masters thesis, a doctoral dissertation, and 20 hours per week of cooperative training and 50 hours of pro bono service in law.

Students who are accepted into the JD/PhD program will receive full tuition remission for all psychology coursework, plus a guaranteed annual stipend that is currently at least \$9,000 per year for all six years they are at the university prior to completing the clinical internship. Students with outstanding LSAT scores may be eligible for full tuition remission from the Earle Mack School of Law.

For information on the Admissions process, visit the [JD/PhD Application Instructions](#) page.

### Philosophy

The program bridges the gap between legal and psychological training. By and large, lawyers and social scientists come from different cultures, with different interests, different cognitive approaches to solving problems, different research methodologies, and different attitudes toward confrontation and argument. Each profession arrives at the "truth" in different ways, and its members are exposed to different styles of education during their post-baccalaureate training. Legal education develops an understanding of case analysis, statutory interpretation, the evolution of legal traditions, and methods for resolving disputes. Education in psychology develops research and clinical skills and understanding of behavioral theories, techniques, and statistical methods. Law, which has special rules concerning evidence and proof, relies heavily on precedent and the application of legal principles to specific facts toward the goal of settling conflicts that need immediate resolution. By contrast, psychology looks at problems through an empirical lens, using psychometrically-based tools and techniques to systematically evaluate questions, but rarely ending in a "final verdict." Because the limits of evidence and the meaning of "proof" in psychological research may differ sharply from the limits of evidence and proof in law, conflict may result when the two disciplines interact.

### Goals

Within the broad framework of the program's philosophy, the JD/PhD Program in Law & Psychology has three specific goals:

- Develop scientist-practitioners who will produce legally sophisticated social science research to aid the legal system to make better empirically-based decisions;
- Produce lawyer-psychologists who will participate in the development of more empirically and theoretically sophisticated mental health policy by legislatures, administrative tribunals, and the courts; and
- Educate highly trained clinicians who can contribute to the advancement of forensic psychology in such areas as criminal law, domestic relations, and civil commitment.

In fulfilling these goals, the program trains students in an integrated and conceptually unified curriculum so they acquire a mature understanding of the interaction between the two disciplines.

### Curriculum

Students attend the School of Law and the Department of Psychology simultaneously for six years, integrating course work in both disciplines each year. Students maintain continuous contact with the faculties of both schools and the developments in both disciplines over the course of each year.

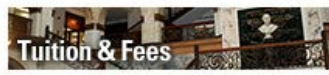
In the seventh year, after obtaining the JD, students undertake a year-long supervised internship in clinical and forensic psychology and complete their doctoral dissertation. They are awarded the PhD at the end of their seventh year.

Training consists of seven elements:

- The required existing core program in law and psychology at both schools;
- Interdisciplinary courses; e.g. , Law and Mental Health, Behavioral Science and the Law, Seminar in Advanced Problems in Mental Health Law, Law and the Mind Sciences, and Research in Law & Psychology;
- Supervised psycholegal research experience on teams of students' faculty mentors;
- Legal clinics and psychology practica and internships that combine knowledge from both fields in a practical setting;
- Electives in both fields, e.g. , bioethics, education law, health law, health psychology, employment discrimination, neuropsychology;
- Cooperative experience and pro bono service in legal settings; and
- Employment for at least one summer in a legal setting, e.g. , public interest law firm, governmental agency, private law firm, nonprofit association.

### Requirements

Only the first year law school curriculum has set required course (which encompass the first two years for students in the



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



joint program). The courses and seminars listed below for the third through sixth years in the law school curriculum, with some required exceptions, are recommended but subject to students' preferences

**Sample Plan of Study**

**First Year Law Courses**

***Fall Semester***

LAW 550S	Torts	4.0
LAW 554S	Civil Procedure	4.0
LAW 565S	Legal Methods I	3.0

***"J Term" (After the New Year)***

LAW 568S	Introduction to Interviewing, Negotiation & Counseling	1.0
----------	--	-----

***Spring Semester***

LAW 556S	Property	4.0
LAW 558S	Criminal Law	4.0
LAW 560S	Constitution Law	4.0
LAW 566S	Legal Methods II	3.0

**First Year Psychology Courses**

***Fall Term***

PSY 721	Principles of Psychotherapy	3.0
---------	-----------------------------	-----

***Winter Term***

PSY 520	Psychopathology	3.0
---------	-----------------	-----

***Spring Term***

PSY 510	Research Methods in Psychology I	3.0
---------	----------------------------------	-----

**Second Year Law Courses**

***Fall Semester***

LAW 552S	Contracts	4.0
----------	-----------	-----

***Spring Semester***

LAW 604S	Advanced Constitutional Law*	4.0
----------	------------------------------	-----

\*This course is a suggested elective and not required.

**Second Year Psychology Courses**

***Fall Term***

PSY 514	Learning Foundations of	3.0
---------	-------------------------	-----

Behavioral Assessment

---

PSY 610	Data Analysis in Psychology	3.0
---------	-----------------------------	-----

---

PSY 865	Special Topics in Psychology: Teaching in Psychology	3.0
---------	---	-----

---

**Winter Term**

---

PSY 522	Intellectual Assessment	3.0
---------	-------------------------	-----

---

PSY 710	Data Analysis II	3.0
---------	------------------	-----

---

**Spring Term**

---

PSY 515	Behavioral Assessment II	3.0
---------	--------------------------	-----

---

PSY 711	Data Analysis III: Advanced Topics	3.0
---------	---------------------------------------	-----

---

**Third Year Law Courses**

**Fall Semester**

---

LAW 634S	Evidence	3.0
----------	----------	-----

---

LAW 670S	Criminal Procedure: Investigations	3.0
----------	---------------------------------------	-----

---

TBA	Mental Health Law	2.0
-----	-------------------	-----

---

**Spring Semester**

---

LAW 644S	Family Law	3.0
----------	------------	-----

---

LAW 671S	Criminal Procedure: Prosecution & Adjudication	3.0
----------	---	-----

---

TBA	Advanced Problems in Mental Health	2.0
-----	---------------------------------------	-----

---

**Third Year Psychology Courses**

**Fall Term**

---

PSY 512	Cognitive Psychology	3.0
---------	----------------------	-----

---

PSY 530	Principles of Neuroscience	3.0
---------	----------------------------	-----

---

PSY 865	Special Topics in Psychology: Mental Health Law	2.0
---------	--	-----

---

**Winter Term**

---

PSY 620	Personality Assessment	3.0
---------	------------------------	-----

---

PSY 712	History and Systems of Psychology	3.0
---------	--------------------------------------	-----

---

PSY 865	Special Topics in Psychology: Advanced Problems in Mental Health Law	2.0
---------	--	-----

---

**Spring Term**

PSY 648	Forensic Psychology/Forensic Assessment I	3.0
PSY 550	Multicultural Perspectives	3.0

**Fourth Year Law Courses**

*Fall Semester*

LAW 643S	Children and the Law	2.0
LAW 830S	Professional Responsibility	3.0
TBA	Behavioral Science and the Law	

*Spring Semester*

LAW 622S	Employment Discrimination	3.0
LAW 642S	Special Education Law	2.0

**Fourth Year Psychology Courses**

*Fall Term*

PSY 524	Professional Issues and Ethics	3.0
PSY 649	Forensic Assessment II	3.0
PSY 552	Proseminar in Diversity	2.0
TBA	Behavioral Science and the Law	3.0

*Winter Term*

PSY 722	Psychotherapy Theories	3.0
PSY 898	Thesis in Psychology	3.0

*Spring Term*

PSY 517	Social Cognition in Clinical Psychology	3.0
---------	---	-----

**Fifth Year Law Courses**

*Fall Term*

LAW 931S	Co-Op	7.0
LAW 783S	Bioethics	2.0

*Spring Term*

LAW 788S	Medical Malpractice	3.0
LAW 678S	Juvenile Justice Law	4.0
TBA	Law and the Mind Sciences	2.0

**Fifth Year Psychology Courses**

**Fall Term**

---

PSY 897	Practicum Seminar	3.0
---------	-------------------	-----

---

**Spring Term**

---

PSY 820	Cognitive-Behavior Therapy	3.0
---------	----------------------------	-----

---

PSY 899	Practicum Fieldwork	1.0
---------	---------------------	-----

---

**Sixth Year Law Courses**

**Fall Term**

---

LAW 621S	Federal Courts	3.0
----------	----------------	-----

---

LAW 680S	Death Penalty Law	2.0
----------	-------------------	-----

---

**Spring Term**

---

LAW 614S	Supreme Court	3.0
----------	---------------	-----

---

or

---

LAW 606S	Civil Rights law	2.0
----------	------------------	-----

---

**JD Awarded**

**Sixth Year Psychology Courses**

**Fall Term**

---

PSY 865	Forensic Neuropsychological Assessment	3.0
---------	--	-----

---

**Spring Term**

---

PSY 630	Psychopharmacology	3.0
---------	--------------------	-----

---

**Seventh Year**

---

PSY 998	PhD Dissertation Psychology	4.0
---------	-----------------------------	-----

---

PSY 999	Full Year APA-accredited psychology internship	4.0
---------	--	-----

---

**PhD Awarded**



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Mathematics

### About the Program

The [Department of Mathematics](#) is a broadly based academic unit offering instructional programs and carrying on research activities in mathematics. Doctor of Philosophy and Master of Science degrees are offered.

Areas of research specialty among the faculty include applied mathematics, algebraic combinatorics, biomathematics, discrete mathematics, optics, analysis, number theory, numerical analysis, probability and statistics, matrix and operator theory, fluid mechanics, and partial differential equations.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Mathematics

### Requirements for Admission

Applicants should hold a BS degree in mathematics or the equivalent and meet the University's graduate admission standards. In particular, the student should have had intensive exposure to proof oriented courses, such as real analysis and abstract algebra. Students requesting financial aid are required to take the Graduate Record Examination General Test. Because many of the core courses are two- or three- term sequences beginning in the fall, new students are typically admitted to the programs only in the fall term. Admissions standards for the MS and PhD programs are equivalent.

For additional information on how to apply, visit Drexel University's [Graduate Admissions](#) website.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Mathematics

45.0 quarter credits

### General Requirements

Students must complete a minimum of 45 graduate credits for the MS degree. Of these 15 courses, the following five are required:

#### Required courses

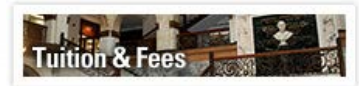
<a href="#">MATH 504</a>	Linear Algebra and Analysis	3.0
<a href="#">MATH 505</a>	Principles of Analysis I	3.0
<a href="#">MATH 506</a>	Principles of Analysis II	3.0
<a href="#">MATH 533</a>	Abstract Algebra I	3.0
<a href="#">MATH 630</a>	Complex Variables I	3.0

The remaining 10 courses may be any graduate mathematics courses. In some cases, course substitutions may be made with courses from other departments. Elective courses taken outside the department must receive prior departmental approval in order to be counted toward the degree.

There are no thesis, language, or special examination requirements for the master's degree.

Students seeking a dual MS must satisfy core requirements for both degree programs.

Students should note that some departmental courses, such as Advanced Engineering Mathematics, are foundation courses and do not contribute to the departmental requirements for the degree. They do count toward the University requirements for a degree.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)





# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## PhD Program in Mathematics

### General Requirements

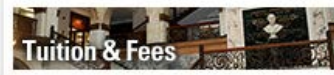
Students must complete a minimum of 45 graduate credits for the PhD degree. Of these 15 courses, the following five are required:

Required courses		Credits
<a href="#">MATH 504</a>	Linear Algebra and Analysis	3.0
<a href="#">MATH 505</a>	Principles of Analysis I	3.0
<a href="#">MATH 506</a>	Principles of Analysis II	3.0
<a href="#">MATH 533</a>	Abstract Algebra I	3.0
<a href="#">MATH 630</a>	Complex Variables I	3.0

The remaining 10 courses may be any graduate mathematics courses. In some cases, course substitutions may be made with courses from other departments. Elective courses taken outside the department must receive prior departmental approval in order to be counted toward the degree.

The student must pass a written qualifying exam. The student is allowed two attempts. Students must take exam at the end of their first year, and have a second opportunity in September of their second year.

Students must take a PhD candidacy exam at the end of their second year. Students should note that some departmental courses, such as Advanced Engineering Mathematics, are foundation courses and do not contribute to the departmental requirements for the degree. They do count toward the University requirements for a degree.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



Drexel University  
Copyright © 2011. All rights reserved.

3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Physics

### General Information

The [Department of Physics](#) offers opportunities for students to study with leading researchers in astrophysics, biophysics, nonlinear dynamics, particle physics, and solid state physics, as well as to participate in international collaborations. Coursework for the MS and PhD degrees includes advanced training in core areas of physics and in the topics of current research. PhD students begin research early in the program, commencing thesis work in their second year of study.

To learn more about the graduate program in Physics visit <http://www.physics.drexel.edu/>.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

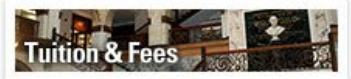
COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Physics

### Admission Requirements

For admission to the graduate programs, a bachelor's degree in an approved program is required with a minimum undergraduate GPA of 3.0/4.0 specified. The GRE general and physics subject tests are required for financial aid. Students from non-English speaking countries are required to demonstrate proficiency in English via the TOEFL exam. Minimum acceptable score for admission is 550, (80 IBT, 213 CBT) but opportunities for financial aid are greater for TOEFL scores near or above 600 (100 IBT, 250 CBT). Teaching assistants educated in non-English speaking countries must complete a special English program.

Visit the [Graduate Admissions](#) website for more information about requirements and deadlines, as well as instructions for applying online.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

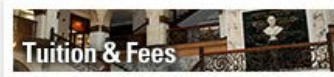
## Master of Science in Physics

45.0 quarter credits

### General Requirements

Students who wish to complete only the master's degree are welcomed, and will find that the learning environment will allow them to broaden their professional understanding by exploring current topics and trends of physics in an interdisciplinary setting.

The requirement for the master's degree in physics is 45 graduate credits, with at least 30 credits taken in Mathematical Physics (PHYS 501 and PHYS 502), Dynamics I (PHYS 506), Electromagnetic Theory (PHYS 511 and PHYS 512), Quantum Mechanics (PHYS 516, PHYS 517, and PHYS 518), and Statistical Mechanics (PHYS 521 and PHYS 522). There are no thesis, language, or special examination requirements for the master's degree.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Doctoral Program in Physics

90.0 credits

The Department of Physics offers opportunities for students to study with leading researchers in astrophysics, biophysics, nonlinear dynamics, particle physics, and solid state physics, as well as to participate in international collaborations. Coursework for the PhD degree includes advanced training in core areas of physics and topics of current research. PhD students begin research early in the program, commencing thesis work in their second year of study.

The usual schedule for physics graduate students consists of two years of coursework, qualifying exams, and research training, followed by dissertation research. All PhD students follow a common set of ten core courses during their first two years of study. In addition to these core courses, students also take four special topics courses.

### PhD students Admitted with Post-Master's Status

Students who are admitted for PhD study with "post-masters" status must take 15 credits of graduate coursework with a minimum GPA of 3.0 to become doctoral candidates. Courses are to be chosen in consultation with the Director of Graduate Studies. Post-masters students are expected to pass the written and oral qualifying exams by the end of the Spring quarter of their first year of study. Ordinarily, this means taking the written qualifying exam in September before the start of classes. To be prepared for the oral exam, post-masters students should begin research as soon as possible.

### Program Requirements

Doctoral candidates are required to complete a minimum of 45 credits of coursework and research work beyond the master's requirement of 45 credits while maintaining a minimum of 3.0 GPA.

### Core Courses

42.0 Credits

#### First Year

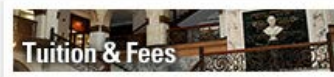
PHYS 501	Mathematical Physics I	3.0
PHYS 506	Dynamics I	3.0
PHYS 502	Mathematical Physics II	3.0
PHYS 516	Quantum Mechanics I	3.0
PHYS 521	Statistical Mechanics I	3.0
PHYS 517	Quantum Mechanics II	3.0

#### Second Year

PHYS 522	Statistical Mechanics II	3.0
PHYS 518	Quantum Mechanics III	3.0
PHYS 511	Electromagnetic Theory I	3.0
PHYS 512	Electromagnetic Theory II	3.0

Students choose a minimum of four (4) special topics courses from the following:

PHYS 531	Galactic Dynamics	3.0
PHYS 532	Cosmology	3.0
PHYS 533	Nanoscience	3.0
PHYS 561	Biophysics	3.0
PHYS 562	Computational Biophysics	3.0
PHYS 563	Single Molecular Methods	3.0
PHYS 571	Nonlinear Dynamics	3.0
PHYS 576	Nuclear and Particle Physics	3.0
PHYS 626	Solid State Physics	3.0



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

**Research Training**

Students begin research in the first year with two small projects. In the spring quarter, this project culminates in a talk presented to the other students and Director of Graduate Studies. In the summer quarter, the project requires a written report to the research advisor. Research during the second year is toward the oral qualifying exam, described below.

**Candidacy Examination**

PhD candidates must pass a Candidacy Examination, which consist of two parts: written and oral:

- The written portion of the qualifying examination is given twice a year, during the week before the fall quarter begins and during the first week of classes of the winter term. Students must pass the written qualifying examination no later than the winter quarter of their second year. At most two attempts may be made at passing the exam. The qualifying examination covers four general areas at the advanced undergraduate level: classical mechanics, electricity and magnetism, quantum mechanics, and statistical physics.
- The oral portion of the qualifying exam is based on original research performed by the student, which consists in an oral presentation and a written report of no less than 15 pages, submitted to the examination committee and the Director of Graduate Studies at least one week prior to the exam. Immediately after the public presentation, the Examination Committee will privately conduct an oral examination. This exam must be passed by the end of the second year of study.

**Dissertation Defense**

This dissertation defense includes a final public presentation and defense of the dissertation. The dissertation must be submitted to the Examination Committee at least two weeks prior to the oral defense. The oral presentation involves a public 45-60 minute presentation by the candidate followed by an unspecified period during which the Examination Committee will ask questions. All doctoral dissertations, in addition to originality and scholarly content, must conform to University format requirements.

**Plan of Study**

The following sample plan of study contains the required courses for full-time PhD students entering without a previous Master's degree. Post-master's students should consult the [Director of Graduate Studies](#).

**Sample Plan of Study****First Year****Fall**

PHYS 501	Mathematical Physics I	3.0
PHYS 506	Dynamics I	3.0
	Special topics course	3.0

**Winter**

PHYS 502	Mathematical Physics II	3.0
PHYS 516	Quantum Mechanics I	3.0
	Special topics course	3.0

**Spring**

PHYS 521	Statistical Mechanics I	3.0
PHYS 517	Quantum Mechanics II	3.0

**Second Year****Fall**

PHYS 522	Statistical Mechanics II	3.0
PHYS 518	Quantum Mechanics III	3.0
	Special topics course	3.0

**Winter**

PHYS 511	Electromagnetic Theory I	3.0
	Special topics course	3.0

**Spring**

---

PHYS 512	Electromagnetic Theory II	3.0
PHYS 997	Research	var.

---

**Special Topics Course Schedule**

Special topics courses are an introduction to current topics of experimental and theoretical interest. They are offered in alternate years.

**Academic Year 2009/2010 (odd)**

**Fall**

---

PHYS 531	Galactic Dynamics	3.0
PHYS 561	Biophysics	3.0

---

**Winter**

---

PHYS 532	Cosmology	3.0
PHYS 562	Computational Biophysics	3.0

---

**Spring**

---

PHYS 563	Single Molecular Methods	3.0
PHYS 750	Special Topics in Physics: Quantum Field Theory	3.0

---

**Academic Year 2010/2011 (even)**

**Fall**

---

PHYS 626	Solid State Physics	3.0
PHYS 576	Nuclear and Particle Physics	3.0

---

**Winter**

---

PHYS 533	Nanoscience	3.0
PHYS 571	Nonlinear Dynamics	3.0

---

**Spring**

---

To be announced.		
------------------	--	--

---

Additional information for graduate students is available at the [Department of Physics](#).





# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Psychology

45.0 quarter credits (minimum)

### General Information

The Master of Science degree in the Department of Psychology, College of Arts & Sciences, is ideal for students interested in pursuing an advanced education in scientific psychology and research methods.

The program is an opportunity for students to take their first step into graduate education, and to begin a path toward further educational and career opportunities. These opportunities include further graduate-level training leading to a PhD, a career in research, or other educational and administrative opportunities. The curriculum is focused on training in a range of research experience in neurocognitive and behavioral sciences. In addition to required coursework, students are required to complete a minimum of 8 hours per week with a research mentor in laboratory activities. These activities culminate with the successful completion of an empirical thesis.

### Requirements for Admission

Applicants must meet the general University requirements for admission, including a minimum 3.0 GPA (on a 4.0 scale) for the last two years of undergraduate study. Applicants to the graduate program in psychology are also required to submit scores from the Graduate Record Examination (GRE) general tests. Only applications for full-time status are considered.

Various factors are considered in choosing students. These include background in psychology, undergraduate (and, if applicable, graduate) GPA, GRE scores, and letters of recommendation. The preferred GRE scores are a minimum of 500 on both the verbal and quantitative portions; the average combined score of admitted students is approximately 1,200.

For additional information on how to apply, visit Drexel's [Admissions Requirements for Psychology](#) page.

### Degree Requirements

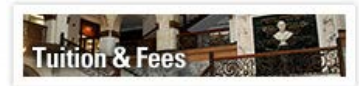
The general requirements for earning the MS degree in psychology are as follows:

- Completion of all required coursework with a minimum grade point average of 3.0, with no grade lower than a B in any required (non-elective) course and no more than two course grades of C or lower.
- Successful completion of a minimum of 45.0 course credits.
- Successful completion of required research laboratory hours.
- Completion of an empirical thesis.
- Research laboratory: 8 hours/week for two years; 6 additional credits of independent study will pertain to the student's laboratory research.

For more information on specific requirements, consult the Program Handbook on the [Master's of Science in Psychology website](#).

### Required courses

PSY 510	Research Methods I	3.0
PSY 511	Research Methods II	3.0
PSY 512	Cognitive Psychology	3.0
PSY 530	Principles of Neuroscience	3.0
PSY 552	Proseminar in Diversity	2.0
PSY 610	Data Analysis in Psychology	3.0
PSY 624	Behavior Analysis	3.0
PSY 690	MS Research I	3.0
PSY 691	MS Research II	3.0
PSY 692	MS Research III	3.0



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Many additional electives are available to enhance individual plans of study.



**Drexel University**  
Copyright © 2011. All rights reserved.

3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu) •

# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## PhD in Psychology: Clinical Psychology

90.0 quarter credits (minimum)

The PhD program in Psychology: Clinical Psychology is fully accredited by the American Psychological Association (APA). It encompasses five years of full-time study and provides graduate students with a strong foundation in relevant psychological theory, experience in the practice of psychological assessment and intervention, experience in conducting meaningful clinical research, and opportunities to develop teaching competencies.

### Requirements for Admission

All students are admitted with the expectation that they intend to complete the PhD degree. However, before advancing to doctoral-level studies, students must earn the MS, including completion of a master's thesis. Admitted students who hold a bachelor's degree are expected to complete both the master's degree and post-master's portions of the Drexel curriculum. Applicants who already hold a master's from another university may be admitted with post-master's status if their graduate-level preparation is deemed equivalent to the master's portion of the Drexel curriculum.

#### *Requirements for Students Enrolling with a Bachelor's Degree*

For those entering with a bachelor's degree, the PhD program requires approximately five years to complete. The first two years of training correspond to the master's-level studies: focusing on clinical areas such as entry-level assessment and intervention skills, psychopathology, and specialized study in cognitive-behavior therapy, neuropsychology, health psychology, and/or forensic psychology. These two years also include a major focus on research skills, involving statistics, research design, and supervised research experience with the mentor. Entry-level assessment, intervention, and teaching skills are also developed.

By the end of the first two years of study, students should have completed 45 credits of coursework, maintained a GPA of at least 3.5, developed and defended a thesis, and completed 800 hours of practicum experience in the form of a clinical practicum. Students demonstrating satisfactory performance in these areas will be admitted to post-master's status.

#### *Requirements for Students Who Already Hold a Master's Degree*

Students entering with a master's degree from another university complete the PhD requirements in 4-5 years. The master's degree should have included an experimental thesis. Students lacking this prerequisite will still be considered for admission, but such students will be required to complete a research project equivalent to the Drexel master's thesis. In addition, students must demonstrate a GPA of at least 3.5 in master's-level courses in order to be accepted for post-master's status.

For additional information on how to apply, visit Drexel's [Admissions Requirements for Psychology](#) page

### Curriculum

The program in Clinical Psychology curriculum follows the scientist-practitioner model and APA guidelines on accreditation of doctoral clinical psychology programs. It also considers state licensing guidelines and various publications that have been written on the topic of doctoral education, training, and credentialing in clinical psychology, as well as the specialty areas of cognitive-behavior therapy, forensic psychology, health psychology, and neuropsychology.

The following section outlines the courses required for graduation for entering Bachelor's-level students. The PhD program curriculum requires the student to earn a minimum of 90 credits. Typically, students enroll in 27 credits during the first year, 22 credits during the second and third years, 12 credits in the fourth year, and 8 credits during the fifth/final internship year. Drexel University operates on a calendar of four eleven-week terms. Students in the program do not take courses during Summer Term in order to complete research projects and continue clinical practicum training.

All coursework can be divided into two major components: (1) Foundations of Psychology, which is the evolving body of knowledge in the discipline of psychology, and (2) Clinical and Professional Training, which focuses on the application of theory and empirical research to the practice of psychology. Listed below are all required and elective courses offered within the Drexel psychology curriculum followed by specific requirements for each concentration. Credit levels listed are set at the minimum required.

The program in Clinical Psychology curriculum follows the scientist-practitioner model and APA guidelines on accreditation of doctoral clinical psychology programs. It also considers state licensing guidelines and various publications that have been written on the topic of doctoral education, training, and credentialing in clinical psychology, as well as the specialty areas of cognitive-behavior therapy, forensic psychology, health psychology, and neuropsychology.

The following section outlines the courses required for graduation for entering Bachelor's-level students. The PhD program curriculum requires the student to earn a minimum of 90.0 credits. Drexel University operates on a calendar of four eleven-week terms. Students in the program do not take courses during Summer Term in order to complete research projects and continue clinical practicum training.

All coursework can be divided into two major components: (1) Foundations of Psychology, which is the evolving body of knowledge in the discipline of psychology, and (2) Clinical and Professional Training, which focuses on the application of theory and empirical research to the practice of psychology. Listed below are all required and elective courses offered



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

within the Drexel psychology curriculum followed by specific requirements for each concentration. Credit levels listed are set at the minimum required.

*Foundations of Psychology*

**History and Systems**

<b>Required</b>		<b>3.0 Credits</b>
PSY 712	History and Systems of Psychology	3.0

Statistics/Research Methods

<b>Required</b>		<b>19.0 Credits</b>
PSY 510	Research Methods in Psychology I	3.0
PSY 610	Data Analysis in Psychology	3.0
PSY 710	Multivariate Methods in Psychology	3.0
PSY 711	Data Analysis III: Advanced Topics	3.0
PSY 898	Thesis in Psychology	3.0
PSY 998	Dissertation in Psychology	4.0

**Electives**

PSY 511	Research Methods in Psychology II	3.0
---------	-----------------------------------	-----

Biological Bases of Behavior

<b>Required</b>		<b>6.0 Credits</b>
PSY 530	Principles of Neuroscience	3.0
PSY 630	Psychopharmacology	3.0

**Electives** **3.0 Credits**

PSY 812	Cognitive Neuroscience	3.0
---------	------------------------	-----

Cognitive/Affective Bases of Behavior

<b>Required</b>		<b>6.0 Credits</b>
PSY 512	Cognitive Psychology	3.0
PSY 514	Learning Foundations of Behavioral Assessment	3.0

**At least one of the following electives**

PSY 516	Developmental Psychology	3.0
PSY 612	Psychology of Human-Computer Interaction	3.0
PSY 614	Problem-Solving and Creativity	3.0
PSY 616	Empirical Foundations of Unconscious Processes	3.0

PSY 840 Models of Memory 3.0

---

Social Bases of Behavior

**Required 6.0 Credits**

---

PSY 550 Multicultural Perspectives 3.0

---

PSY 517 Social Cognition in Clinical Psychology 3.0

---

*Clinical and Professional Training*

General Foundations of Practice

**Required 11.0 Credits**

---

PSY 560 Teaching in Psychology 3.0

---

PSY 520 Psychopathology 3.0

---

PSY 524 Professional Issues and Ethics 3.0

---

PSY 552 Proseminar in Diversity 2.0

---

Foundations of Psychological Evaluation/Measurement

**Required 12.0 Credits**

---

PSY 522 Psychological & Intellectual Assessment 3.0

---

PSY 620 Personality Assessment 3.0

---

PSY 514 Learning Foundations of Behavioral Assessment 3.0

---

PSY 515 Behavioral Assessment II 3.0

---

**Electives**

---

PSY 542 Neuropsychological Assessment 3.0

PSY 642 Neuropsychological Case Analysis/Integration 3.0

PSY 648 Forensic Psychology/Forensic Assessment I 3.0

PSY 649 Forensic Assessment II 3.0

---

Foundations of Intervention

**Required 15.0 Credits**

---

PSY 721 Principles of Psychotherapy 3.0

---

PSY 722 Psychotherapy Theories 3.0

---

PSY 897 Clinical Psychology Practicum Seminar 3.0

---

PSY 899 Practicum 2.0

---

PSY 999 Internship 4.0

---

**At least one of the following electives:**

---

PSY 540	Principles of Neuropsychology	3.0
PSY 648	Forensic Psychology/Forensic Assessment I	3.0
PSY 650	Childhood Psychopathology and its Treatment	3.0
PSY 819	Health Psychology	3.0
PSY 820	Cognitive-Behavior Therapy	3.0
PSY 830	Advanced Topics in Health Psychology	3.0

#### Advanced Professional Training

Elective Courses		12.0 Credits
PSY 526	Childhood Psychopathology	3.0
PSY 730	Criminal Law and Psychology	3.0
PSY 746	Neuropsychological Evaluation and Intervention: Children and Adolescents	3.0
PSY 750	Autism Spectrum Disorders	3.0
PSY 821	Family and Group Therapy	3.0
PSY 822	Pediatric Psychology	3.0
PSY 823	Substance Abuse	3.0
PSY 824	Eating and its Disorders	3.0
PSY 825	Seminar in Mind/Body Studies	3.0
PSY 826	Social Problem-solving and Psychopathology	3.0
PSY 827	Behavioral Stress Management	3.0
PSY 830	Advanced Topics in Health Psychology	3.0
PSY 840	Models of Memory	3.0
PSY 845	Neuropsychological Evaluation and Intervention: The Elderly	3.0
PSY 854	Psychology of Rehabilitation	3.0
PSY 840	Models of Memory	3.0
PSY 865	Psychopathy	3.0
	Developmental Disabilities	3.0
	EEG	3.0
	Special Education and the Law	3.0
	Technologies in Psychology	3.0

#### Specific Concentration Requirements

##### Clinical Neuropsychology Concentration

The clinical neuropsychology concentration includes courses, research, and clinical experiences designed to train the students for professional practice in neuropsychology. Clinical neuropsychology involves the application of psychological assessment and intervention to the problems encountered by people with brain injury or illness. The knowledge of brain-behavior functioning and the incorporation of neuropsychological conceptualizations with traditional clinical conceptualizations of functioning are aimed at providing the student with a wider perspective regarding the range of human functioning and disability. The student is able to pursue specific interests in geriatrics, pediatrics, traumatic brain injury, and rehabilitation.

In addition to the core curriculum:

- One neuropsychology practicum (800 hours)
- A neuropsychology-focused thesis and dissertation
- Required classes: Principles of Neuropsychology, Principles of Neuroscience, Neuropsychological Assessment, Case Analysis and Integration
- At least two neuropsychology electives: Models of Memory, Rehabilitation Psychology, Advanced Neuropsychology Assessment and Intervention: Children and Adolescents, Advanced Neuropsychology Assessment and

Intervention: The Elderly.

### **Forensic Psychology Concentration**

Forensic psychology involves the application of assessment and intervention techniques to informing legal decision-makers and attorneys on questions in criminal, civil, and family law. Those who concentrate in forensic psychology will be trained in relevant law, behavioral science research, and assessment and intervention approaches with a particular focus on juvenile and criminal issues.

In addition to the core curriculum:

- One forensic psychology practicum (800 hours)
- A forensic psychology-focused thesis and dissertation
- At least two years of research in an area related to forensic psychology
- Required classes: Forensic Assessment I and II, Law and Mental Health
- At least two forensic psychology electives.

### **Health Psychology Concentration**

Health psychology adopts a broad-based, biopsychosocial perspective in order to: (1) better understand the interplay among behavioral, emotional, cognitive, social, and biological factors regarding health, wellness, and physical disease; (2) promote and maintain wellness and positive physical health; (3) prevent, treat, and rehabilitate illness and disability, and (4) improve the health care delivery system. The health psychology concentration aims to provide specialty training in order to prepare graduate students for academic and/or clinical positions where the primary focus is on physical health problems.

In addition to the core curriculum:

- **One health psychology practicum (800 hours)**
- **A health psychology-focused thesis and dissertation**
- **Required classes: Health Psychology, Behavioral Stress Management**
- **At least three Health Psychology electives**

### **CBT Concentration**

Cognitive behavior therapy (CBT) represents a broad family of psychological interventions that are grounded in scientific theories and principles derived from psychology and related disciplines, and that stress the empirical validation of intervention methods. Various theories, principles, models, and techniques fall under the general rubric of CBT, and these approaches have been applied to the full range of human experience, from the assessment and treatment of severe psychopathology and profound developmental delays to primary prevention efforts to enhancing peak performance among athletes.

Common features of the various CBT approaches include a focus primarily on the present rather than the past, an emphasis on parsimony in theoretical explanations, grounding in learning principles (including principles related to how we interpret the world and/or how we related to our own experience), and the emphasis on epistemological empiricism. The CBT concentration aims to provide pre-specialty training in order to prepare graduate students for academic and/or clinical positions in which CBT is a primary focus.

Additional concentration requirements beyond the core curriculum include:

- One CBT-oriented practicum (800 hours)
- A CBT-focused thesis and/or dissertation
- Required classes: Cognitive Behavior Therapy, Behavioral Stress Management (taken in second year with Personality Assessment taken in third year)
- At least two CBT electives: Child Psychopathology and its Treatment, Seminar in Mind/Body Studies, pediatric Psychology, Eating and its Disorders, Substance Abuse, and others as offered and approved by the Concentration Head.

For more information on the PhD program requirements, consult the PhD Program Handbook available from the [Clinical Psychology PhD Program](#) web site.





# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## PhD in Psychology: Applied Cognitive and Brain Science (ACBS)

90.0 quarter credits (minimum)

The Department of Psychology's program in Applied Cognitive and Brain Sciences (ACBS) is a research oriented, non-clinical, PhD concentration. The program places equal emphasis on basic research and the application of scientific principles.

### Admissions

Drexel University is seeking applicants with a strong academic record, as evidenced by their GRE scores (a quantitative plus verbal sum of 1250 or greater is desirable), strength of undergraduate institution and GPA (3.5 or greater is preferred). In addition, applicants should have outstanding letters of recommendation (from doctoral-level academic, research oriented psychologists, if possible), high-quality research experience, and include a statement of purpose that convinces Drexel that a potential student is an excellent "match" for one or more of our research groups.

For more details on how to apply to this program, please visit the [Graduate Admissions Psychology](#) page.

### Curriculum

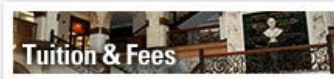
The PhD program curriculum requires student to earn a minimum of 90.0 credits. Students completing the concentration in Applied Cognitive and Brain Science take all or most of their core courses within the first two years. The third and fourth years, following the receipt of the master's degree, successful passing of the qualifying examinations, and advancement to doctoral candidacy, will be spent in enrichment or specialization courses negotiated with their research supervisor and in research activities.

The following section outlines the courses required for graduation for entering Bachelor's-level students.

### Requirements

#### First Year

<i>Fall</i>		Credits
BMES 510	Biomedical Statistics	4.0
PSY 512	Cognitive Psychology	3.0
PSY 530	Principles of Neuroscience	3.0
PSY 560	Teaching in Psychology	1.0
<i>Winter</i>		
BMES 515	Experimental Design in Biomedical Research	4.0
PSY 560	Teaching in Psychology	1.0
PSY 812	Cognitive Neuroscience	3.0
PSY 898	Master's Thesis in Psychology	3.0



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

**Spring**

---

BMES 518	Interpretation of Biomedical Data	3.0
PSY 560	Teaching in Psychology	1.0
PSY 614	Problem-Solving and Creativity	3.0
PSY 865	Special Topics in Psychology: Psycholinguistics	3.0

---

**Second Year**

---

**For the second year and beyond the student's academic schedule will be determined jointly by the student and their primary mentor/advisor. Pre and Post Master's coursework will be partly shaped to suit the student's goals and may be drawn from the following list of courses. (Additional courses may be added as appropriate and with the approval of the program director.)**

---

**Sample Electives**

---

PSY 510	Research Methods in Psychology	3.0
PSY 511	Research Methods in Psychology I	3.0
PSY 516	Developmental Psychology	3.0
PSY 517	Social Psychology	3.0
PSY 562	Consciousness	3.0
PSY 610	Data Analysis in Psychology	3.0
PSY 612	Psychology of Human-Computer Interaction	3.0
PSY 616	Motivation and Emotion	3.0
PSY 617	Empirical Foundations of Unconscious Processes	3.0
PSY 621	Theories of Personality	3.0
PSY 630	Psychopharmacology	3.0
PSY 632	Sensory and Motor Systems	3.0
PSY 648	Forensic Psychology/Forensic Assessment I	3.0
PSY 649	Forensic Assessment II	3.0
PSY 710	Data Analysis II: Multivariate Methods	3.0
PSY 711	Data Analysis III: Advanced Topics	3.0
PSY 712	History and Systems of Psychology	3.0
PSY 720	Health Psychology	3.0
PSY 730	Criminal Law and Psychology	3.0
PSY 746	Neuropsychological Evaluation: Children and Adolescents	3.0
PSY 812	Cognitive Neuroscience	3.0
PSY 840	Models of Memory	3.0

PSY 865	Special Topics in Psychology: Technologies in Psychology	3.0
PSY 865	Special Topics in Psychology: Law and Mental Health	3.0
PSY 865	Special Topics in Psychology: Autistic Spectrum Disorders	3.0
PSY 898	Master's Thesis in Psychology	3.0
PSY 998	PhD Dissertation Psychology	var.

---

**Enrichment Courses from other Disciplines**

**Computer Science**

---

CS 510	Artificial Intelligence I	3.0
CS 530	Developing User Interfaces	3.0
CS 610	Artificial Intelligence II	3.0

---

**Information Systems**

---

INFO 608	Human-Computer Interaction	3.0
INFO 610	Analysis of Interactive Systems	3.0
INFO 611	Design of Interactive Systems	3.0

---

**Biomedical Engineering and Sciences**

---

BMES 531	Chronobioengineering I	3.0
BMES 532	Chronobioengineering II	3.0
BMES 551	Biomedical Signal Processing	3.0
BMES 710	Neural Signals	3.0

---

For more information on the PhD program requirements, consult [Department of Psychology's](#) web site.



# Drexel University

# CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Joint JD/PhD Law-Psychology Program

The Earle Mack School of Law and the Department of Psychology in the College of Arts and Sciences offer a joint and integrated JD/PhD Program in Law and Psychology. The program melds two already ongoing successful endeavors, the JD degree in the School of Law and the PhD in clinical psychology in the Department of Psychology.

Students in the program complete all 85 credits required for graduation from the law school and all 91 credits required to complete the doctorate. The program allows those students who wish to pursue professional degrees in both law and psychology a more efficient plan of study. The program is designed to be completed in seven (7) years, including required psychology practica, a year's internship in an American Psychological Association accredited predoctoral mental health/forensic setting, a masters thesis, a doctoral dissertation, and 20 hours per week of cooperative training and 50 hours of pro bono service in law.

Students who are accepted into the JD/PhD program will receive full tuition remission for all psychology coursework, plus a guaranteed annual stipend that is currently at least \$9,000 per year for all six years they are at the university prior to completing the clinical internship. Students with outstanding LSAT scores may be eligible for full tuition remission from the Earle Mack School of Law.

For information on the Admissions process, visit the [JD/PhD Application Instructions](#) page.

### Philosophy

The program bridges the gap between legal and psychological training. By and large, lawyers and social scientists come from different cultures, with different interests, different cognitive approaches to solving problems, different research methodologies, and different attitudes toward confrontation and argument. Each profession arrives at the "truth" in different ways, and its members are exposed to different styles of education during their post-baccalaureate training. Legal education develops an understanding of case analysis, statutory interpretation, the evolution of legal traditions, and methods for resolving disputes. Education in psychology develops research and clinical skills and understanding of behavioral theories, techniques, and statistical methods. Law, which has special rules concerning evidence and proof, relies heavily on precedent and the application of legal principles to specific facts toward the goal of settling conflicts that need immediate resolution. By contrast, psychology looks at problems through an empirical lens, using psychometrically-based tools and techniques to systematically evaluate questions, but rarely ending in a "final verdict." Because the limits of evidence and the meaning of "proof" in psychological research may differ sharply from the limits of evidence and proof in law, conflict may result when the two disciplines interact.

### Goals

Within the broad framework of the program's philosophy, the JD/PhD Program in Law & Psychology has three specific goals:

- Develop scientist-practitioners who will produce legally sophisticated social science research to aid the legal system to make better empirically-based decisions;
- Produce lawyer-psychologists who will participate in the development of more empirically and theoretically sophisticated mental health policy by legislatures, administrative tribunals, and the courts; and
- Educate highly trained clinicians who can contribute to the advancement of forensic psychology in such areas as criminal law, domestic relations, and civil commitment.

In fulfilling these goals, the program trains students in an integrated and conceptually unified curriculum so they acquire a mature understanding of the interaction between the two disciplines.

### Curriculum

Students attend the School of Law and the Department of Psychology simultaneously for six years, integrating course work in both disciplines each year. Students maintain continuous contact with the faculties of both schools and the developments in both disciplines over the course of each year.

In the seventh year, after obtaining the JD, students undertake a year-long supervised internship in clinical and forensic psychology and complete their doctoral dissertation. They are awarded the PhD at the end of their seventh year.

Training consists of seven elements:

- The required existing core program in law and psychology at both schools;
- Interdisciplinary courses; e.g. , Law and Mental Health, Behavioral Science and the Law, Seminar in Advanced Problems in Mental Health Law, Law and the Mind Sciences, and Research in Law & Psychology;
- Supervised psycholegal research experience on teams of students' faculty mentors;
- Legal clinics and psychology practica and internships that combine knowledge from both fields in a practical setting;
- Electives in both fields, e.g. , bioethics, education law, health law, health psychology, employment discrimination, neuropsychology;
- Cooperative experience and pro bono service in legal settings; and
- Employment for at least one summer in a legal setting, e.g. , public interest law firm, governmental agency, private law firm, nonprofit association.

### Requirements

Only the first year law school curriculum has set required course (which encompass the first two years for students in the



### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

joint program). The courses and seminars listed below for the third through sixth years in the law school curriculum, with some required exceptions, are recommended but subject to students' preferences

**Sample Plan of Study**

**First Year Law Courses**

*Fall Semester*

LAW 550S	Torts	4.0
LAW 554S	Civil Procedure	4.0
LAW 565S	Legal Methods I	3.0

*"J Term" (After the New Year)*

LAW 568S	Introduction to Interviewing, Negotiation & Counseling	1.0
----------	--	-----

*Spring Semester*

LAW 556S	Property	4.0
LAW 558S	Criminal Law	4.0
LAW 560S	Constitution Law	4.0
LAW 566S	Legal Methods II	3.0

**First Year Psychology Courses**

*Fall Term*

PSY 721	Principles of Psychotherapy	3.0
---------	-----------------------------	-----

*Winter Term*

PSY 520	Psychopathology	3.0
---------	-----------------	-----

*Spring Term*

PSY 510	Research Methods in Psychology I	3.0
---------	----------------------------------	-----

**Second Year Law Courses**

*Fall Semester*

LAW 552S	Contracts	4.0
----------	-----------	-----

*Spring Semester*

LAW 604S	Advanced Constitutional Law*	4.0
----------	------------------------------	-----

\*This course is a suggested elective and not required.

**Second Year Psychology Courses**

*Fall Term*

PSY 514	Learning Foundations of	3.0
---------	-------------------------	-----

Behavioral Assessment

---

PSY 610	Data Analysis in Psychology	3.0
---------	-----------------------------	-----

---

PSY 865	Special Topics in Psychology: Teaching in Psychology	3.0
---------	---	-----

---

**Winter Term**

---

PSY 522	Intellectual Assessment	3.0
---------	-------------------------	-----

---

PSY 710	Data Analysis II	3.0
---------	------------------	-----

---

**Spring Term**

---

PSY 515	Behavioral Assessment II	3.0
---------	--------------------------	-----

---

PSY 711	Data Analysis III: Advanced Topics	3.0
---------	---------------------------------------	-----

---

**Third Year Law Courses**

**Fall Semester**

---

LAW 634S	Evidence	3.0
----------	----------	-----

---

LAW 670S	Criminal Procedure: Investigations	3.0
----------	---------------------------------------	-----

---

TBA	Mental Health Law	2.0
-----	-------------------	-----

---

**Spring Semester**

---

LAW 644S	Family Law	3.0
----------	------------	-----

---

LAW 671S	Criminal Procedure: Prosecution & Adjudication	3.0
----------	---	-----

---

TBA	Advanced Problems in Mental Health	2.0
-----	---------------------------------------	-----

---

**Third Year Psychology Courses**

**Fall Term**

---

PSY 512	Cognitive Psychology	3.0
---------	----------------------	-----

---

PSY 530	Principles of Neuroscience	3.0
---------	----------------------------	-----

---

PSY 865	Special Topics in Psychology: Mental Health Law	2.0
---------	--	-----

---

**Winter Term**

---

PSY 620	Personality Assessment	3.0
---------	------------------------	-----

---

PSY 712	History and Systems of Psychology	3.0
---------	--------------------------------------	-----

---

PSY 865	Special Topics in Psychology: Advanced Problems in Mental Health Law	2.0
---------	--	-----

---

**Spring Term**

PSY 648	Forensic Psychology/Forensic Assessment I	3.0
PSY 550	Multicultural Perspectives	3.0

**Fourth Year Law Courses**

*Fall Semester*

LAW 643S	Children and the Law	2.0
LAW 830S	Professional Responsibility	3.0
TBA	Behavioral Science and the Law	

*Spring Semester*

LAW 622S	Employment Discrimination	3.0
LAW 642S	Special Education Law	2.0

**Fourth Year Psychology Courses**

*Fall Term*

PSY 524	Professional Issues and Ethics	3.0
PSY 649	Forensic Assessment II	3.0
PSY 552	Proseminar in Diversity	2.0
TBA	Behavioral Science and the Law	3.0

*Winter Term*

PSY 722	Psychotherapy Theories	3.0
PSY 898	Thesis in Psychology	3.0

*Spring Term*

PSY 517	Social Cognition in Clinical Psychology	3.0
---------	---	-----

**Fifth Year Law Courses**

*Fall Term*

LAW 931S	Co-Op	7.0
LAW 783S	Bioethics	2.0

*Spring Term*

LAW 788S	Medical Malpractice	3.0
LAW 678S	Juvenile Justice Law	4.0
TBA	Law and the Mind Sciences	2.0

**Fifth Year Psychology Courses**



**Fall Term**

---

PSY 897	Practicum Seminar	3.0
---------	-------------------	-----

---

**Spring Term**

---

PSY 820	Cognitive-Behavior Therapy	3.0
---------	----------------------------	-----

---

PSY 899	Practicum Fieldwork	1.0
---------	---------------------	-----

---

**Sixth Year Law Courses**

**Fall Term**

---

LAW 621S	Federal Courts	3.0
----------	----------------	-----

---

LAW 680S	Death Penalty Law	2.0
----------	-------------------	-----

---

**Spring Term**

---

LAW 614S	Supreme Court	3.0
----------	---------------	-----

---

or

---

LAW 606S	Civil Rights law	2.0
----------	------------------	-----

---

**JD Awarded**

**Sixth Year Psychology Courses**

**Fall Term**

---

PSY 865	Forensic Neuropsychological Assessment	3.0
---------	--	-----

---

**Spring Term**

---

PSY 630	Psychopharmacology	3.0
---------	--------------------	-----

---

**Seventh Year**

---

PSY 998	PhD Dissertation Psychology	4.0
---------	-----------------------------	-----

---

PSY 999	Full Year APA-accredited psychology internship	4.0
---------	--	-----

---

**PhD Awarded**



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Public Policy

### About the Program

The Master of Science in Public Policy has a required core curriculum of nine courses, specifically designed for students to:

- develop an understanding of the social, political and ethical context of policy research, and how this understanding can be applied to an applied practice of policy analysis;
- conceptualize, design and conduct social research for policy purposes, as well as comprehensively analyze existing social research data;
- recognize the history of public policy institutions in America and the management and governance of nonprofit organizations; and
- understand the concept of sustainability as it relates to policy planning, design, and implementation.

In addition to the core courses, the program has a focus on case study research as a unifying element of the curriculum. The curriculum reinforces coursework with a series of accompanying 1-credit, online, Case Study Research co-requisites. Students are required to choose a specific case that they will work on for the duration of the core curriculum. In each subsequent Case Study Research course, students apply the content of each accompanying core course to further research and writing on their case studies. Thus by the end of the program students will have produced a polished, in-depth analysis of a specific case that they can use to demonstrate expertise in a given policy area.

With the approval and support of the program director, students can craft a specialized course of study with their three electives, or they can take courses in one of three tracks:

- Environmental Policy
- Science and Technology Policy
- Urban Systems Management

The degree can be completed part-time in two years. Select students will also be able to apply for an intensive full-time track in which they complete the degree in a single year.

For additional information, view the [Center for Public Policy](#) page on the College of Arts and Sciences' website.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



Drexel University  
Copyright © 2011. All rights reserved.

3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Public Policy

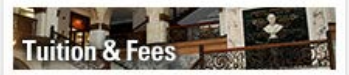
### Admission Requirements

Applications are currently being accepted for enrollment in the Master of Science in Public Policy. The program will be offering two core courses per term in the 2011-2012 academic year. Though part-time at 8.0 credits, Drexel is extending the same scholarship opportunities to students who enroll as it usually reserves for full-time programs.

Acceptance for graduate study at Drexel University requires a four-year bachelor's degree from an accredited institution in the United States or an equivalent international institution. Although admission requirements vary by program, regular acceptance typically requires a minimum grade point average (GPA) of 3.0 for the last two years of undergraduate work. The GPA for any graduate work must be at least 3.0.

The admission committee evaluates all credentials submitted by applicants to determine a student's ability and potential to succeed in graduate study. In addition, the committee is interested in the applicant's ability to contribute to his/her program of study and to the University community as a whole.

Visit the [Graduate Admissions](#) website for more information about requirements and deadlines, as well as instructions for applying online.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Public Policy

45.0 credits

### Degree Requirements

Graduation from the program requires the successful completion of 45 credits of graduate coursework. The degree consists of nine required core courses, nine accompanying Case Study Research co-requisites, and three elective courses. With the approval and support of the Center of Public Policy Director, students can craft an [MS in Psychology](#), a specialized course of study with their three electives, or they can take courses in one of three tracks: Environmental Policy; Science and Technology Policy; or Urban Systems Management.

Required courses		27.0 Credits
<a href="#">BUSN 502</a>	Essentials of Economics	3.0
<a href="#">ECON 616</a>	Public Finance and Cost-Benefit Analysis	3.0
<a href="#">COM 705</a>	Statistical Data Analysis in Communication	3.0
<a href="#">INFO 530</a>	Foundations of Information Systems	3.0
<a href="#">PLCY 503</a>	Theory and Practice of Policy Analysis	3.0
<a href="#">PLCY 504</a>	Methods of Policy Analysis	3.0
<a href="#">PLCY 506</a>	Institutional Dynamics of the Policy Process	3.0
<a href="#">PLCY 507</a>	Nonprofit Organizations	3.0
<a href="#">PLCY 509</a>	Sustainability and Public Policy	3.0

### Case Study courses 9.0 Credits

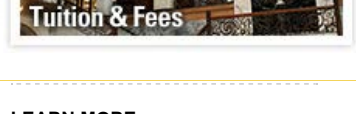
The curriculum reinforces coursework with a series of accompanying 1-credit, online, Case Study Research co-requisites. In the first, students are introduced to case study methodology and practice, and required to choose a specific case that they will work on for the duration of the core curriculum. In each subsequent Case Study Research course, students apply the content of each accompanying core course to further research and writing on their case studies. Thus by the end of the program students have produced a polished, in-depth analysis of a specific case that they can use to demonstrate expertise in a given policy area.

<a href="#">PLCY 501</a>	Introduction to Case Study Research	1.0
<a href="#">PLCY 502</a>	Case Study Research*	1.0

\*Can be repeated for credit a maximum of 8 times, for 8.0 credits. .

### Elective courses 9.0 Credits

Elective courses are taught under the PLCY 590: Special Topics in Public Policy, or one of the participating departments.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

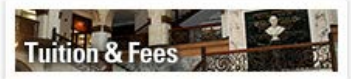
## Master of Science in Publication Management

### About the Program

Students enter the Publication Management program from diverse undergraduate backgrounds, including liberal arts, business administration, journalism, communications, technical writing, and information studies. The program builds on the individual's undergraduate content base by providing knowledge about the key elements of the publishing process needed by a publishing executive. The program also serves the needs of individuals already employed in the printing or publishing industry who are seeking to update or broaden their knowledge.

Students completing the program may find career opportunities in the management of traditional publishing companies as well as in corporate communication areas of a broad range of business and education. Entrepreneurial opportunities provide another area of career development.

All courses in the program are offered in the evening on a part-time or full-time basis. The curriculum comprises courses in technical and science writing and editing, product acquisition, design, production, and printing technology offered through the College of Arts and Sciences and business management and marketing courses offered through the LeBow College of Business.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Publication Management

45.0 credits

Graduation from the program requires the successful completion of all program pre- and co-requisites and 45 credits of graduate coursework.

### Curriculum

Required courses		30.0 Credits
COM 510	Technical Writing	3.0
COM 570	Technical and Science Editing	3.0
PMGT 630	Publishing Environment	3.0
PMGT 631	Page Design and Production	3.0
PMGT 635	Periodicals Publishing	3.0
PMGT 730	Book Publishing	3.0
PMGT 745	Electronic Publishing	3.0
PMGT 735	Publication Budgeting and Estimating	3.0
PMGT 740	Publications Marketing	3.0
PMGT 800	Independent Study	3.0
or		
PMGT 801	Independent Project	3.0

**Elective courses** **15.0 Credits**

Students select five additional courses for 15 elective credits.

One course (3 credits) must be a COM elective.

Electives may include, but are not limited to the following:

COM 500	Reading and Research in Communication	3.0
COM 520	Science Writing	3.0
COM 530	Technical and Science Photography	3.0
COM 540	Technical and Science Graphics	3.0
COM 610	Theories of Communication and Persuasion	3.0
COM 620	Message Design and Evaluation	3.0



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)



COM 630	Developing Software Documentation	3.0
COM 640	Desktop Publishing	3.0
COM 645	Strategy and Design for Multimedia	3.0
COM 650	Telecommunications Policy	3.0
COM 655	Telecommunication Policy in the Information Age	3.0
COM 660	Investigative Journalism	3.0
COM 665	Journalists, Courts and the Law	3.0
COM 670	Medical Writing	3.0
COM 675	Grant Writing: Arts/Humanities	3.0
COM 680	Public Relations Strategies	3.0
COM 690	Special Topics in Communication	3.0
COM 865	Interconnections: Science and Technology, Literature and the Arts	3.0
COM 875	Ethics for Technical and Scientific Communication	3.0
COM 880	Ethics for Public Communication	3.0
ORGB 625	Leadership and Professional Development	3.0
MKTG 601	Marketing Strategy and Planning	3.0
MKTG 630	Global Marketing	3.0



# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

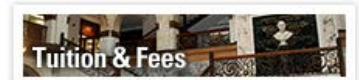
## Master of Science in Science, Technology, and Society

### General Information

The increasingly complex nature of modern life has steadily eroded the distinctions traditionally made between social and technical issues. Leaders among scientists, engineers, policy-makers, managers, investors, and educators must base their decisions on a diverse array of data, new tools for gathering and evaluating this data, integrated systems of information, and interdisciplinary approaches to problem-solving. In an era of expanding global investment and complex regulation, opportunities will accrue to those who can identify potential problems early and formulate multifaceted, long-term, and viable solutions.

The graduate program in Science, Technology, and Society (STS) targets this new leadership cadre. STS at Drexel integrates the study of history, science and technology, public policy, and contemporary social and political issues. It combines core courses in the history of science and technology with classes that focus on gender and race, democratic institutions, ethics, and future challenges to industry and government. The program also provides a unique international orientation, which recognizes the crucial context of globalization in the advancement of science and technology and the broad implications of scientific research and innovation in the politics and history of the modern world.

Prospective students for the MS in STS see this educational opportunity as an essential factor in their skill enhancement and career advancement. They are recent college graduates in the social sciences, humanities, natural sciences, and engineering; middle and high school teachers; and professionals in businesses, city and state government offices, and area hospitals. Students can attend full time or part time and complete all coursework in the evening. For additional information, visit the [Masters Program in Science, Technology, and Society](#) web page.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

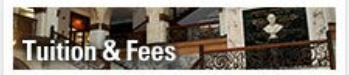
## Master of Science in Science, Technology, and Society

### Admission Requirements

Applicants to the program must meet the general requirements for admission to graduate studies at Drexel. Applicants whose undergraduate grade point average is below 3.0 must provide GRE scores.

Prospective students must also submit a 500-word essay explaining why they want to enter the program. These statements are read carefully by the faculty screening committee to evaluate each applicant's sense of purpose. Entering students typically begin during the fall quarter.

Visit the [Graduate Admissions](#) website for more information about requirements and deadlines, as well as instructions for applying online.



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

Drexel University  
Copyright © 2011. All rights reserved.



3141 Chestnut Street, Philadelphia, PA 19104  
[catalog@drexel.edu](mailto:catalog@drexel.edu)

# Drexel University CATALOG 2011-2012

COLLEGES & SCHOOLS MAJORS MINORS GRADUATE PROGRAMS CERTIFICATE PROGRAMS ARCHIVE

## Master of Science in Science, Technology, and Society

45.0 credits

### Curriculum

The MS degree in STS requires 45 credits of coursework. At least 36 credits must be in the Department of History & Politics. Required courses total 27 credits (including a 3-credit research seminar, a 3-credit practicum, and 6 credits of research and writing for the thesis, which may be tied to the practicum). Remaining credits are chosen from a list of electives.

#### Basic requirements 15.0 Credits

HIST 501	Introduction to Science, Technology, and Society	3.0
HIST 585	Technology in Historical Perspective	3.0
HIST 586	Gender and Technology	3.0
or		
PSCI 573	Gender, Race, and Science	3.0
PSCI 555	International Political Economy	3.0

#### One of the following courses:

PSCI 571	Science and Technology Public Policy	3.0
PSCI 557	Globalization and Transition	3.0
PSCI 541	Technology in Developing Countries	3.0
PSCI 570	International Environmental Policy	3.0

#### Advanced requirements 12.0 Credits

HIST 696	Seminar in Science, Technology, and Society	3.0
or		
PSCI 696	Seminar in Science, Technology, and Society	3.0
HIST 697	Practicum: Science and Technology in Action	3.0
HIST 698	MS Thesis	6.0
or		
PSCI 698	MS Thesis	6.0

#### Suggested Electives (select at least three of the following) 9.0 Credits

HIST 541	Technology in Developing Countries	3.0
HIST 555	International Political Economy and Technology	3.0
HIST 557	Globalization and Transition	3.0
HIST 560	History of Information Science and Technology	3.0
HIST 583	History of Medicine and Disease	3.0



#### LEARN MORE

- [Drexel Home](#)
- [About Drexel](#)
- [Accreditation](#)
- [Academic Policies](#)

HIST 584	Historiography of Science	3.0
HIST 586	Gender and Technology	3.0
HIST 590	Themes in the History of Science	3.0
HIST 591	Themes in the History of Technology	3.0
PSCI 541	Technology in Developing Nations	3.0
PSCI 555	International Political Economy	3.0
PSCI 557	Globalization and Transition	3.0
PSCI 570	International Environmental Policy	3.0
PSCI 573	Gender, Race, and Science	3.0
PSCI 574	Alternative Policy Perspectives	3.0
PSCI 575	Appropriate Technology and Development	3.0
COM 650	Telecommunications Policy	3.0
COM 690	Grant Writing	3.0
MGMT 602	Management and Technology	3.0
PSY 612	Human-Computer Interaction	3.0

---

**Remaining electives**

**9.0 Credits**

---

Any remaining electives may be taken in the Department of History & Politics or other departments and colleges in the university, chosen in consultation with the STS faculty.

---

