

# SECTION 1: INTRODUCTION

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## **PENN OVERVIEW**

From modest beginnings in 1740 as a college for the “complete education” of youth established by Benjamin Franklin, the University of Pennsylvania has become a leading private research university.

The first Ph.D. program at Penn was initiated by the faculty in 1870 and the first Ph.D. was awarded to Mary Alice Bennett in 1880. The department that later became the Graduate Division of the School of Arts and Sciences was started in 1882 and the first fellowship for graduate studies was awarded in 1885.

The University of Pennsylvania, a world leader in the advancement of teaching and research, provides exceptional opportunities for graduate study. While Penn offers its graduate students outstanding faculty and facilities, reflecting the University’s century-old commitment to doctoral education, what truly distinguishes graduate programs at Penn is the way that these resources are combined to encourage interdisciplinary pursuits. Spanning the University’s many areas of traditional and specialized study is a common goal of graduate education at Penn: to cultivate each scholar’s ability to bridge the boundaries that define disciplines and to make the connections that produce deeper insights.

The significance of Penn’s commitment to interdisciplinary scholarship is apparent in all fields of inquiry. Technological advances increasingly depend upon mastering the integration of technologies arising from an understanding of new ideas from the basic sciences, as well as the human context in which these solutions are being applied. Addressing such social issues as the increasing globalization of national economies or the management of environmental crises requires interaction among humanists, scientists, and other professionals, in addition to social scientists. Literary criticism increasingly draws on concepts central to the social sciences to interpret texts. Even the most discipline-based scholarship responds to the challenge that derives from close contact with the methods and perspectives of other disciplines.

Penn’s distinct success in interdisciplinary pursuits is sustained through the location of its twelve schools on one self-contained, 260-acre campus. This means that Penn brings the faculty and facilities of business, law, and communications schools into close proximity with the scientific, linguistic, social, and cultural expertise resident within an outstanding liberal arts school. It means that engineering scholars are advantageously grouped with leading dental, medical, nursing, and veterinary schools. Also, a part of this unique community, schools of fine arts, education, and social work, along with a large complement of specialized, interdisciplinary research centers and institutes, add critical dimensions to intellectual pursuits at Penn. With no boundaries dividing the schools, centers, and institutes that occupy the Penn campus, academic neighbors are able to cross freely the boundaries of disciplines, creating a fresh vision of knowledge, its uses, and its users.

As interdisciplinary inquiries tie together Penn scholars in diverse fields, they also connect Penn students and faculty to colleagues with shared interests in the wider region. Penn’s location adjacent to Center City Philadelphia affords nearly unlimited possibilities for linkages with industry, government, and other centers of research. Utilization of the vast scholarly resources and participation in creative interactions with the many academic institutions, agencies, and corporations concentrated in the Philadelphia area are factors that help to ensure the continuing vitality of research and graduate programs at the University of Pennsylvania.

## **ORGANIZATION OF GRADUATE EDUCATION**

The University of Pennsylvania offers master of arts (A.M.), master of science (M.S.), and doctor of philosophy (Ph.D.) degree programs designed to prepare scholars to contribute to the development of their disciplines. Academic programs that result in the awarding of the Ph.D. degree instruct students in the materials, methods, issues, and problems of their discipline; lead them to perform scholarly research that expands our understanding of the world; and train them to communicate their research effectively to colleagues and students. Master’s programs are intended to provide students with instruction in a field and to involve them in research.

Ph.D. and related master's programs are offered by nine schools at Penn: the School of Arts and Sciences, the School of Engineering and Applied Science, the Wharton School, the Graduate School of Fine Arts, the Annenberg School for Communication, the Graduate School of Education, the School of Nursing, the School of Social Work, and the School of Medicine. A more detailed description of each program appears in section five.

In addition, Penn offers professional degree programs. Further information about these programs can be obtained by contacting the individual schools. Addresses for these schools are listed in section eleven.

Academic programs for Ph.D. students are by their nature more individualized and flexible than other graduate programs of study. For example, the aim of the professional degree programs offered at Penn is to prepare knowledgeable, capable practitioners who are able to play leading roles in their respective professions. While a Ph.D. education shares with the professional degree programs mastery of a chosen field, the doctoral degree is not granted upon successful completion of examinations or a prescribed curriculum. A Ph.D. is awarded only after the student has conducted research that results in a substantial, original contribution to the discipline — an achievement that is expressed through the doctoral dissertation. Ph.D. alumni of the University of Pennsylvania go on to expand the boundaries of knowledge as faculty and staff of the world's foremost universities, colleges, and research facilities.

Penn's Ph.D. and related master's programs bring faculty and students together according to "graduate groups." The graduate group system promotes cooperation among faculty and graduate students in different departments and facilitates organization of interdisciplinary efforts. Faculty at the University often participate in more than one graduate group, and each group includes members from the faculty of several departments at Penn—a natural outgrowth of the collaborations and shared interests that arise across disciplines.

In many programs, including history, sociology, mathematics, chemical engineering, architecture, education, and communications, the graduate group closely mirrors the structure of a department or a school. Other graduate groups do not correspond with established departments or schools. The Graduate Group in Ancient History comprises faculty from the departments of anthropology, art and archaeology of the Mediterranean world, classical studies, history of art, Asian and Middle Eastern studies, philosophy, and religious studies. The Cell and Molecular Biology Group includes faculty from the departments of biochemistry and biophysics, microbiology, neuroscience, genetics, pediatrics, pathology, physiology, and medicine in the medical school, as well as faculty from chemistry and biology in the School of Arts and Sciences, and faculty from the veterinary and dental schools and from the Wistar Institute.

The flexibility of the graduate group structure, combined with the breadth of the resources that are located on Penn's self-contained campus, allows students to enrich studies in their specialties with work in related areas. Thus, doctoral students in bioengineering are able to benefit from the faculty and facilities of the Schools of Arts and Sciences, Medicine, Veterinary Medicine, and Dental Medicine; students in classical archaeology utilize the resources of a range of graduate programs including anthropology, history of art, folklore and folklife, and religious studies, in addition to the research facilities of the University Museum. By sharing a single campus, students and faculty of all divisions of the University are encouraged to pool their resources and work together in a variety of interdisciplinary enterprises.

## THE FACULTY

At any institution, the most critical component of the educational experience in a graduate program is the faculty member with whom the student shares research interests. With its standing as a major research institution in each of its twelve schools, Penn offers its graduate students access to a faculty that is impressive both in the breadth of its research and professional pursuits and in the depth of its contributions and accomplishments. Included among the many academic laurels recently awarded to members of the Penn faculty are Nobel Prizes, Pulitzer Prizes, Guggenheim Fellowships, and MacArthur Fellowships.

Although harder to quantify, the teaching achievements of the Penn faculty are equally as impressive as their research contributions. A commitment to teaching complements the interdisciplinary commitments of Penn's faculty, with both serving to focus research efforts through the continual exposure to new perspectives, ideas, and methods. Faculty engagement with students extends beyond members of their immediate graduate groups; through seminars and other activities sponsored by graduate groups, depart-

ments, and campus research centers and institutes, numerous opportunities are presented that enable students to develop productive, informal relationships with faculty members from a variety of disciplines.

Prospective applicants are encouraged to review the information about faculty research interests on the World Wide Web, or to contact the appropriate graduate group to learn more about the faculty members working in areas related to their own interests.

## THE STUDENTS

The Penn campus includes 22,300 students — among them some 9,800 undergraduate, 8,200 full-time graduate and professional students — and 2,050 faculty. Graduate students come to Penn from the best colleges and universities not only in the United States, but around the world. Over 25 percent of master's and doctoral students come to Penn from other countries. Women account for almost half of graduate students.

While there is no “typical” Penn graduate student in terms of experience or demographics, these students do share an exceptional academic ability and the recognized potential to conduct significant research. Graduate students are an important component of the overall quality of research and education at Penn, contributing to the intellectual environment on campus through their own scholarship as well as through their interactions with faculty and undergraduates. Penn graduate students also help to promote the intellectual development of their peers both within and across disciplines. There are numerous interdisciplinary seminars that provide forums for students to share their work, engage in critical peer review, and discuss common intellectual problems. Examples include the Sawyer Seminar on Globalization and Inequality, supported by a grant from the Andrew W. Mellon Foundation; seminars are sponsored by Penn's interdisciplinary centers and program committees and the Graduate Student Center.

## THE ADVANTAGES OF DIVERSITY

*“As an institution of higher education, we have a responsibility to create and nurture a community of different peoples in which a true diversity of views and opinions, persons and groups is valued and shared. The quality of life at Penn must be good for people of all races, ethnicity or other personal or group characteristics. Our goal is not to homogenize our differences, but to capitalize on and learn from them. This University reaffirms the belief that efforts to increase diversity will improve education for all students not just those from under-represented groups. Consistent with this, Penn has undertaken and funded a wide range of initiatives and programs aimed at recruitment and retention of minority students and faculty.”*

— Dr. Judith Rodin, University President

All applicants for doctoral study are considered for financial awards including University fellowships and teaching and research assistantships. In addition, the University offers the Fontaine Fellowship which, in combination with departmental or school-based awards, provides full support for at least four years to minority students pursuing full-time study toward the Ph.D. degree and who are American citizens. Established and named in honor of Dr. William Fontaine, professor of philosophy at the University of Pennsylvania for 21 years, and the first African-American to become a fully affiliated professor of the University, the Fontaine Society sponsors a range of interdisciplinary academic conferences and social programs. Applicants to Penn's doctoral programs are automatically considered for all financial assistance for which they are eligible. To assist in matching prospective students to all funding sources for which they may be eligible, applicants are encouraged to self-identify on the application their ethnic or cultural heritage and to indicate any other special perspectives or “voices” they would offer as members of the Penn community.

## PENN'S URBAN ADVANTAGE

The Penn campus is situated immediately across the Schuylkill River from downtown Philadelphia, near the heart of the Boston-Washington, DC corridor. This urban location affords access to the resources that only a large city can offer, while also providing many of the benefits of smaller cities. Over the last decade, central Philadelphia has experienced an expansive urban renaissance, and it was recently ranked among the top five most “livable” cities in the nation. Not complacent about safety, the University is a national leader in developing programs that foster the security of all members of the University commu-

nity. The federal Crime Awareness and Campus Security Act, as amended by the Higher Education Amendments of 1998, requires all institutions of higher education to provide to students and employees information on their security policies and procedures and statistics for specific offenses that occur on campus, on certain non-campus properties and on certain public properties, and to make information and statistics available to prospective students and employees upon request. The Pennsylvania College and University Security Information Act requires Penn to provide information about its security policies and procedures to students, employees, and applicants; to provide crime statistics to students and employees; and to make those statistics available to applicants and new employees upon request. This information about Penn is contained in the University's annual security report, "Campus Safety and Security: A Shared Responsibility." This report can be found at the following website address: <http://www.upenn.edu/almanac/v47/n25/safetyreport2001.html>. The University will provide a paper copy of the report upon request. You may request a copy by calling the Division of Public Safety at 215-898-7297.

Penn's location in Philadelphia opens the door to a variety of academic resources:

- Philadelphia is distinguished as a major center of higher education; several departments at Penn take advantage of the resources of neighboring institutions including Drexel University, Temple University, Princeton University, and Bryn Mawr, Swarthmore, and Haverford Colleges. (There are exchange programs that allow Ph.D. students to enroll in courses at Princeton and Bryn Mawr.) There are three other medical schools in the city: Temple University, Thomas Jefferson University, and MCP Hahnemann University. Philadelphia also is a center for the fine arts with three art schools: Moore, Tyler, and University of the Arts.
- Research in many areas is enriched by the holdings of the Free Library of Philadelphia.
- Students of the humanities utilize the rare book and manuscript collections in organizations such as the Athenaeum, specializing in 19th-century social and cultural history; the Library Company of Philadelphia, an independent research library with collections documenting every aspect of the history and background of American culture from the colonial period to the Civil War; the Balch Institute for Ethnic Studies, addressing the history of North American ethnic, racial, and minority groups; and the Atwater Kent Museum, a home for collections documenting daily urban life in 19th- and 20th-century Philadelphia.
- The Philadelphia Museum of Art and the Rodin Museum, featuring the largest collection of Rodin's works outside France, provide extensive resources for scholars in the arts and humanities. The nearby Barnes Foundation affords access to one of the world's most significant collections of French Impressionist paintings. Unusual collections such as the Rosenbach Museum and Library enable scholars to work with paintings and drawings, an array of period furnishings and antiques, and rare manuscripts such as James Joyce's handwritten copy of *Ulysses*. The Pennsylvania Academy of Fine Arts houses one of the finest collections of American paintings and sculptures, especially those of Thomas Eakins, Gilbert Stuart, and Winslow Homer.
- The facilities and libraries of the Academy of Natural Sciences support the research efforts of Penn scholars dealing with an array of fields within the life and physical sciences. Students of the history of science can take advantage of the Library of the American Philosophical Society, whose holdings include first editions of Issac Newton's *Principia Mathematica* and Charles Darwin's *On the Origin of Species*.
- The library of the Philadelphia College of Physicians ranks among the top medical collections in the United States, and serves as the Mid-Eastern Regional Medical Library of the National Library of Medicine.
- Scientific and technological research receives impetus through links with other institutions and corporations in a region noted for its concentration of high-technology industries and medical facilities. For example, Philadelphia has the nation's greatest concentration of employment in the pharmaceutical industry.

Penn students also enjoy Philadelphia's many cultural and recreational resources. The Philadelphia Orchestra, one of the world's premier symphonic groups, performs only minutes away from campus in the Academy of Music, as does the Pennsylvania Ballet and the Opera Company of Philadelphia. Dance and theater performances by national and local performing arts groups can be enjoyed right on the Penn campus at the Annenberg Center. Off campus, the Philadelphia Theater Company, the Painted Bride, and the

Afro-American Dance Ensemble are among the many theaters and companies that contribute to the city's eclectic offerings.

Philadelphia has long been recognized for its outstanding architecture, with representative works by leading architects including William Strickland's Second Bank of the United States (located next to historic Independence Hall), John Haviland's Eastern State Penitentiary, John Notman's Athenaeum, Frank Furness's Pennsylvania Academy of Fine Arts, and Frank Lloyd Wright's Beth Sholom Synagogue. On Penn's campus alone are examples by Wilson Eyre, Horace Trumbauer, Frank Furness, Eero Saarinen, Romaldo Giurgola, Louis I. Kahn, and Robert Venturi and Denise Scott Brown. Philadelphia's collection of outdoor public art is the largest in the nation. Also included among Philadelphia's outdoor attractions is the Fairmount Park system. The largest urban park in the United States, the system actually comprises five major parks located throughout the city, each offering a variety of recreational facilities. In addition, Philadelphia is home to professional teams in four major spectator sports. Public transportation provides convenient access to the sports complex from campus.

Penn's urban location affords easy access to destinations off campus and outside of the city. Philadelphia's mass transit system, SEPTA, operates a coordinated system of bus, subway, elevated train, and trolley lines that covers all of Philadelphia and parts of surrounding counties. With a 15-minute walk to Amtrak's 30th Street Station, Penn students can expand their possibilities by making short excursions to destinations such as New York City and Washington, DC. In addition, the Philadelphia International Airport is only a 20-minute drive from campus, and also can be reached on a convenient high speed express line that stops on the campus.