

College of Science, Health and the Liberal Arts

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The College of Science, Health and the Liberal Arts is home to a multi-disciplinary faculty and innovative curriculum in history, the humanities, mathematics, the sciences, the social sciences and the health professions. The College has a mission to promote academic excellence in professional education and the liberal arts and sciences through its academic programs and offerings that include:

College Studies Program:

The College of Science, Health and the Liberal Arts is responsible for the delivery of Philadelphia University's innovative general education core curriculum that stresses active learning, integrative thinking and a blending of professional and liberal education. This curriculum encourages students to approach their professional area within the broader political, social, economic, ethical and cultural context. It promotes critical thinking and enhances the student's skills in communication, quantitative reasoning, information literacy and research.

Liberal Arts Majors:

- Environmental Sustainability
- Law and Society
- Professional Communication

Science Majors:

- Biochemistry
- Biology
- Biopsychology
- Chemistry
- Environmental and Conservation Biology

Health Professions Majors:

For more information about the M.S. degrees listed here see "Graduate Programs" in the Academic Catalog.

- Health Sciences

- Pre-Medical Studies
- Psychology
- Disaster Medicine and Management (M.S.)
- Midwifery (M.S.)
- Occupational Therapy (M.S.)
- Physician Assistant Studies (M.S.)

Joint Degrees

B.S. Health Sciences/M.S. Occupational Therapy

B.S. Health Sciences/M.S. Physician Assistant Studies

B.S. Psychology/M.S. Occupational Therapy

Science, Health and the Liberal Arts Minor

For more information about the minors see "Minors and Concentration" section of the Academic Catalog.

- Biodiversity
- Environmental Sustainability
- Law and Society
- Professional Communication
- Psychology
- Public Health
- Social Sciences

Support to the other Colleges such as providing the mathematics and physics instruction to the engineering programs.

College Mission

The College of Science, Health and the Liberal Arts strives to graduate students who are competent professionals and who are fully prepared for professional practice or graduate study and proficient in the general areas of:

- Information literacy and life-long learning
- Oral, written and electronic communication
- Quantitative reasoning
- The use of technology
- Critical thinking, in-depth analysis, complex decision-making and problem-solving
- Appreciation for diversity and awareness of a global perspective
- Ethical reflection
- Civic engagement
- Leadership

The College seeks to create and foster a learning community of self-motivated students and teacher-scholars with meaningful interactions both in and out of the classroom and laboratory.

Core Values

This mission will be accomplished through the focus and dedication of a premier faculty, administration and staff in a nurturing environment based on the following common set of values:

- Innovative teaching and active learning
- Individual mentoring and outstanding academic advising
- Outstanding service to students, families, and alumni
- Strong professional preparation grounded in the liberal arts and sciences
- Applied research with student participation
- Ethical reflection and integrity
- Program, college, university and community service

Listed below are descriptions of the undergraduate majors in the College and the College Studies Program.

Environmental Sustainability

Mission

The B.S. in Environmental Sustainability prepares students for careers as sustainability professionals. Drawing upon Philadelphia University's strengths in professional education, our program equips students with the skills and vocabularies to bridge the multiple disciplines—architecture, design, business, engineering, and policymaking—necessary to produce environmentally sustainable operations for communities, businesses and organizations. Our graduates are innovative problem solvers with the interdisciplinary training necessary to build the sustainable societies of the future.

Program Learning Outcomes

Graduates of the Environmental Sustainability program will be able to:

- Analyze the relationship between human societies and their environments from a variety of cultural, historical, political, economic, ethical and philosophical perspectives
- Employ the appropriate scientific knowledge and laboratory skills necessary to understand and address environmental issues
- Evaluate the capabilities and potential of existing and prospective technologies — architectural, agricultural, mechanical, industrial and energy-producing — that can be combined in order to achieve sustainable processes and outcomes for communities and businesses
- Interact with, and serve as, corporate and organizational leaders to reorganize and orient business practices in the direction of sustainability
- Apply their knowledge and skills from multiple disciplines to real-life sustainability challenges through internships, service learning and capstone projects

Program Description

Sustainability involves balancing the needs of human societies with the health of the ecosystems that surround and support them. It also challenges us to behave ethically across generations: how can today's societies meet their needs without compromising the ability of future generations to meet theirs? This challenge is growing sharper every day as rapid population and economic growth produce a number of related concerns: climate change, dwindling oil supplies, extreme weather events, shrinking water supplies and the accelerating resource requirements of developing nations

like India and China. This combination of issues calls for a new category of experts who can develop and implement the strategies for sustainability.

Designing a sustainable operation, whether at the local, national or global level, requires a comprehensive approach that accounts for the political, cultural, scientific, economic and technological context of the relationship between humans and their ecosystems. Sustainability professionals need to be able to think across these different areas and communicate with a variety of experts and audiences in their own “languages.”

The Bachelor of Science in Environmental Sustainability equips students with the skills and vocabularies to bridge the multiple disciplines — architecture, design, business, engineering and policymaking — necessary to produce environmentally sustainable operations for communities, businesses and organizations. Philadelphia University offers the only environmental program in the region with training across these different professional fields, an approach that builds upon the University's strengths and that produces creative problem-solvers with the skills necessary to build the sustainable societies of the future.

With the increasing global attention to environmental issues, the demand for sustainability experts will continue to rise. Environmental sustainability professionals can expect to build careers in local, state and federal environmental agencies, utility companies, non-profit environmental organizations, wildlife and conservation agencies, environmental consulting and auditing firms, “green” contracting and construction management companies, and educational programs in schools, museums and parks. In addition, the study of environmental sustainability develops scientific and social science skills that can be applied to graduate training in a variety of fields, including law, public policy, education, business and natural resource management. Internship opportunities and multiple elective courses allow students to gain professional experience before graduation and to customize their major according to their career objectives.

The Environmental Sustainability check sheet can be found on page 155.

Law and Society

Mission

The B.S. in Law and Society program is an undergraduate, interdisciplinary program that encourages active student participation and debate on issues concerning how competing powers create law, for what purpose and how these laws are implemented. The program develops leadership by building critical thinking and communication skills in an energetic practically-oriented environment. Graduates are prepared broadly for careers in the legal profession, such as law school, paralegal and legal assistantships, and for positions in criminal justice, non-profits and government organizations.

Program Learning Outcomes

Graduates of the Law and Society program will:

- Possess a breadth and depth of professional skills informed by the liberal arts and sciences
- Apply multidisciplinary and collaborative approaches as a means of succeeding in dynamic, complex career environments
- Integrate theory and practice to inform research and guide creative decisions in their professional fields
- Interpret and value diversity in both local and global communities
- Be ethically responsible citizens in the personal, professional and civic spheres
- Bring innovation to their fields and anticipate future directions in their professions by adapting to social, environmental and economic change

Program Description

The rule of law and concepts of social justice provide a foundation for life in modern society and a framework for ethical action for professionals in all fields of work. Knowledge of the origins of American and international legal concepts and systems, and of the ongoing transformation of those systems, is of value in virtually every profession and for every global citizen.

The Law and Society major builds valuable critical thinking and writing skills through the examination of legal systems, courts and conceptions of justice and human rights within both the American and international contexts and offers opportunities to explore literary, philosophical, ethical and scientific approaches to legal issues. With a multi-disciplinary approach that draws deeply on the liberal arts and social sciences, the Law and Society program also reflects the University's traditional commitment to practical professional education.

Students earning a B.S. in Law and Society will be well prepared for careers in law, but are by no means limited to such careers. Today's employers seek graduates with critical thinking and communications skills and broad global awareness. The skills and information offered by the Law and Society program prepare its students for work in a broad range of professional areas. Public service, government, NGOs, international businesses, high-tech firms and diplomatic service: these are only a few of the law-related fields affected by the rapidly changing legal environments worldwide.

All Law and Society majors also choose a minor from one of the many professional fields that the University offers, such as business, psychology, languages and environmental sustainability. Opportunities for internships, study abroad and independent research allow students to examine the ways in which legal issues intersect with professional practice in a variety of site locations across many professional fields. Our Career Services professionals help position students for career opportunities after graduation and have an enviable job placement record.

The Law and Society major also opens many doors for students whose career plans include graduate study in fields such as law, business, medicine, public health, political

science, sociology and urban policy and planning. Students preparing specifically for careers as lawyers can take advantage of our professional advising program that supports them on their way to law school.

The Law and Society check sheet can be found on page 149.

Professional Communication

Mission

The Professional Communication major is a dynamic, interdisciplinary program featuring the intersection of text and image with a focus on writing and editing. Special emphasis is placed on emerging technologies, specifically social media. Graduates will be prepared for roles as communication specialists in corporations, non-profits and government, as well as boutique PR and advertising firms and technology start-ups.

Program Learning Outcomes

Graduates of the Professional Communication program will:

- Demonstrate ability to create communications and to express ideas clearly and logically in multiple media formats to multiple audiences
- Apply the principles of management, marketing and design to communication problems
- Demonstrate theoretical and social understandings of communication in a variety of contexts
- Demonstrate high ethical standards in all communication practices
- Apply innovative thinking as they adapt communication methods in response to changing media landscapes
- Research effectively, using multiple methods and information technologies and communicating findings to multiple audiences

Program Description

Professional Communication is a growing field dedicated to writing and presenting information using emerging technologies and new media. Students majoring in the Bachelor of Science in Professional Communication sharpen their abilities to integrate texts, images, sounds and motion while preparing for jobs as communication specialists in business, government and the non-profit sector. Studying the theory and practice of communication also enhances writing, researching and presenting skills that students can apply to graduate training in areas such as law, public affairs, education, journalism and business administration.

The Professional Communication course sequence is dynamic and interdisciplinary. Students complete a wide range of individual and collaborative projects that examine how communication affects disciplines and professions in business, design, the sciences and the health professions. The Professional Communication program includes a solid foundation in how human, consumer and organizational behavior relate to communication practices. Further, internship opportunities, job shadowing and multiple elective courses enable students to gain additional professional experience

they can use while tailoring their major to meet specific career objectives.

Graduates of Professional Communication, depending on their areas of focus, will work as writers, public relations specialists, web site content developers, corporate communication representatives, bloggers, journalists and editors. Their work will involve responsibilities such as writing and editing for print and digital publications, using new media to create effective presentations and serving on interdisciplinary teams dedicated to client-based projects in professional and public arenas across the globe.

The program philosophy for Professional Communication honors innovation, rhetorical awareness and strategy and ethical practice. The program is committed to preparing students for communication jobs in business, government and the non-profit sector, as well as for lives as continuous learners who are able to adapt to change.

The Professional Communication check sheet can be found on page 143.

Biochemistry

Mission

The mission of the Biochemistry program at Philadelphia University is to provide a high quality, rigorous, American Chemical Society accredited curriculum that prepares our undergraduate students for the disciplines of chemistry and biochemistry where critical and analytical thinking skills, collaboration, innovation, and a yearning for discovery are essential traits. Our stimulating and supportive environment allows students to grow intellectually and professionally through a curriculum that stresses thorough understanding of chemical concepts and principles while developing essential practical, hands-on skills through laboratory experiences such as faculty-led research and laboratory-based courses. In addition, the mission of the University ensures that not only do our graduates possess the essential mathematical and scientific skills to be successful in the chemical and biochemical disciplines, they also become life-long, community engaged learners as a result of our rigorous college studies curricula.

Program Learning Outcomes

A biochemistry major who graduates from Philadelphia University will:

- Describe the fundamental laws and theories of chemistry pertaining to the properties of matter, chemical reactions and their stoichiometry, properties of gases, solution chemistry and acid and base chemistry.
- Describe the chemistry of organic molecules including functional group structure and properties, structure and stereochemistry of alkanes, nucleophilic substitution and elimination reactions of allyl halides, the structure/synthesis/reactions of alkenes, alcohols, aromatic compounds, aldehydes and ketones.
- Summarize chemical thermodynamics, chemical kinetics, and quantum mechanics and relate this information to modern day chemistry.

- Develop the language, terms and critical thinking/problem solving skills to use, understand and trouble-shoot analytical instrumentation used in chemistry and biochemistry today.
- Acquire the necessary 'bench top' laboratory skills, including knowledge of laboratory safety and behavior, to be functional with laboratory equipment and techniques.
- Describe the utility and history of inorganic chemistry including atomic structure, simple bonding theory, symmetry and group theory, coordination chemistry and molecular orbital theory.
- Describe metabolism (including signaling mechanisms, basic biochemistry of DNA and RNA and mechanisms of control of gene expression), protein structure-function and laboratory techniques used in biochemical research.
- Garner information and critically analyze information (IL skills in general).
- Effectively communicate in written formats germane to the sciences.
- Successfully use their garnered research skills to probe new avenues of scientific inquiry.
- Utilize communication skills to disseminate research to both the general public and the scientific community.

Program Description

The Bachelor of Science in Biochemistry combines the disciplines of biology and chemistry to enable students to pursue careers in research, industry and advanced study in graduate programs. A variety of opportunities exists in research and development in the pharmaceutical industry, specialty-chemical companies and genetics, molecular biology and bioengineering research. The program provides an appropriate preparation for medical and other health sciences professional schools. Biochemistry majors maintain a consistently high placement rate in major-related careers and graduate school programs.

A wide array of career choices are available to professionals in this important field, including research-management positions at large pharmaceutical and chemical companies such as GlaxoSmithKline, McNeil Pharmaceuticals, Rohm and Haas, DuPont, Merck and Eastman Kodak.

The program, accredited by the American Chemical Society (ACS), not only prepares students for careers in research, development or production in the chemical industry, but for advanced study in graduate and/or medical school. The University maintains close ties with the ACS, which frequently invites students to present their research findings at meetings. Students have recently given presentations in Washington, D.C., San Francisco and San Diego. Students accumulate field-related research experience throughout their college careers due to the small class size and "hands-on" approach by faculty. As a result, many students have seen their work published in scholarly journals as early as the freshman year.

The Biochemistry check sheets can be found on page 137.

Biology

Mission

The mission of the Bachelor of Science in Biology is to provide students with a strong foundation of knowledge, analytical and technical skills to prepare them for graduate study and/or for careers in the biological sciences.

Program Learning Outcomes

Graduates of the Biology program will:

- Exhibit the ability to convey biological information through effective written expression and oral communication
- Be proficient at accession and critical review of biological literature
- Write laboratory reports in an acceptable format based on the outcomes of lab exercises
- Demonstrate ability to execute laboratory skills including analytical technology
- Interpret graphical, tabular and other methods of presenting data
- Analyze and comprehend methods of experimentation
- Apply information from biology core courses to prepare for advanced studies
- Gain exposure to the biological sciences as a profession

Program Description

The Bachelor of Science in Biology at Philadelphia University affords students opportunities to pursue careers or graduate and professional study in disciplines as diverse as biotechnology, genetic counseling, pharmaceuticals, cellular and molecular biology, immunology, cancer research and secondary education. An investigative approach in field and laboratory courses promotes development of technical competence as well as conceptual understanding. Many students hone their analytical skills through research with faculty on campus or at other institutions through internships and may present their work at professional society meetings or publish in scientific journals. Students are strongly encouraged to participate in the student group "Science in Action" which sponsors academic, recreational, community service activities and a year-end student poster presentation.

The Biology check sheet can be found on page 135.

Biopsychology

Mission

The Biopsychology curriculum provides students with a broad understanding of the biological bases of behavior. The curriculum provides students with an in-depth understanding of the scientific foundation for psychology and the resulting connections between psychology and biology. The Biopsychology curriculum integrates psychology and the natural sciences to provide a fuller understanding of the biological bases of behavior. The biopsychology major is a science-based curriculum designed to prepare students for careers in the medical or allied health fields, direct entry into

medical/pharmaceutical research or graduate programs in various science-based disciplines.

Program Learning Outcomes

Graduates from the biopsychology major will:

- Analyze and apply the scientific process to psychology.
- Locate, retrieve, critically evaluate and communicate scientific data and knowledge.
- Communicate effectively and professionally.
- Express expertise in specific content areas of psychology.
- Display knowledge of the ethical standards, personal integrity and professional responsibilities of psychologists.
- Apply principles and practice of core information and values in a psychology practice environment through internships and applied research.

Program Description

Interest in biological explanations of behavior has increased dramatically in the last decade and has led to a greater appreciation for researching brain functioning in order to understand behavior. The demand for highly trained, behaviorally oriented scientists in academic and industrial research has been substantial and is reflected in the rise of graduate programs in biopsychology and related fields such as neuroscience. The Bachelor of Science in Biopsychology integrates psychology and the natural sciences to provide a fuller understanding of the biological basis of behavior. The Biopsychology major is a science-based curriculum designed to prepare students for medical school, direct entry into medical/pharmaceutical research or graduate programs in psychology, biopsychology, animal behavior, neuroscience and occupational therapy. Students will complete a common core of courses in psychology and science and select one of three concentration tracks: Animal Behavior, Graduate Study or Pre-Medical Studies.

Psychology Concentration Option

(select one, seven-course option)

Pre-Medical Studies Option

- CHEM-201/201L, CHEM-202/202L, PHYS-201/201L, PHYS-203/203L and three additional advanced courses from biology and psychology areas (see advisor)

Animal Behavior Option

- CHEM-207/207L, ECBIO-201, ECBIO-301 and four additional advanced courses from biology and psychology areas (see advisor)

Graduate Study Option

- Seven advanced courses from biology and psychology areas (at least three from each area; see advisor)

The Biopsychology check sheet can be found on page 139.

Chemistry

Mission

The mission of the Chemistry program at Philadelphia University is provide a high quality, rigorous, American

Chemical Society accredited curriculum that prepares our undergraduate students for the disciplines of chemistry and biochemistry where critical and analytical thinking skills, collaboration, innovation and a yearning for discovery are essential traits. Our stimulating and supportive environment allows students to grow intellectually and professionally through a curriculum that stresses thorough understanding of chemical concepts and principles while developing essential practical, hands-on skills through laboratory experiences such as faculty-lead research and laboratory-based courses. In addition, the mission of the University ensures that not only do our graduates possess the essential mathematical and scientific skills to be successful in the chemical and biochemical disciplines, they also become life-long, community engaged learners as a result of our rigorous college studies curricula.

Program Learning Outcomes

Graduates from the chemistry major will:

- Describe the fundamental laws and theories of chemistry pertaining to the properties of matter, chemical reactions and their stoichiometry, properties of gases, solution chemistry and acid and base chemistry.
- Describe the chemistry of organic molecules including functional group structure and properties, structure and stereochemistry of alkanes, nucleophilic substitution and elimination reactions of allyl halides, the structure/synthesis/reactions of alkenes, alcohols, aromatic compounds, aldehydes and ketones.
- Summarize chemical thermodynamics, chemical kinetics, and quantum mechanics and relate this information to modern day chemistry.
- Develop the language, terms and critical thinking/problem solving skills to use, understand and trouble-shoot analytical instrumentation used in chemistry and biochemistry today.
- Acquire the necessary 'bench top' laboratory skills, including knowledge of laboratory safety and behavior, to be functional with laboratory equipment and techniques.
- Describe the utility and history of inorganic chemistry including atomic structure, simple bonding theory, symmetry and group theory, coordination chemistry and molecular orbital theory.
- Describe metabolism (including signaling mechanisms, basic biochemistry of DNA and RNA and mechanisms of control of gene expression), protein structure-function and laboratory techniques used in biochemical research.
- Garner information and critically analyze information (IL skills in general).
- Effectively communicate in written formats germane to the sciences.
- Successfully use their garnered research skills to probe new avenues of scientific inquiry.

Program Description

The Bachelor of Science in Chemistry, accredited by the American Chemical Society (ACS), not only prepares students

for careers in research, development or production in the chemical industry, but also for advanced study in graduate and/or medical school.

The two options within this program, chemistry and environmental science, provide the student the opportunity to investigate and to research developments in modern chemistry. Upper-level chemistry majors may work with a faculty member on a research project of mutual interest. As a result of these projects, some of the students have seen their work presented in national meetings and published in scholarly journals. The University maintains close ties with the ACS, which welcomes information about student research at its regular meetings.

By working with faculty on real projects, students learn how to complete each step of an independent research project that leads to the production of a scientific report suitable for publication in peer-reviewed journals. Recent faculty-student partnerships have led to joint presentations at national conferences in Atlanta, Toronto, Denver, San Diego and New Orleans.

Chemistry affects our daily lives more than most people realize. From the paint we use to decorate our homes and the dyes used to create patterns in everyday items such as apparel and home furnishings, to the antibiotics prescribed to us by our doctors, experienced chemists are needed to produce many of the practical, revolutionary and necessary goods we often take for granted. Field-related research and experience are offered as part of the University's Chemistry major, preparing graduates for an abundance of career opportunities. Chemistry majors maintain a consistently high placement rate in major-related careers and graduate school programs. Large pharmaceutical and chemical companies such as GlaxoSmithKline, McNeil Laboratories, Rohm and Haas, Merck and DuPont hire our students to become research chemists, managers and associates, based on their outstanding classroom and laboratory experience and extensive research work, begun as early as the freshman year. Faculty-student research partnerships are an important part of the program.

Students have the option of choosing advanced study in Chemistry or Environmental Science.

The Chemistry check sheet can be found on page 141.

Environmental and Conservation Biology

Mission

The Environmental and Conservation Biology major is designed to prepare students for a wide range of environmental careers in government agencies, non-profit organizations, research and consulting. The major emphasizes skills development in plant and animal field identification, GIS technology, chemical analysis, experimental design, wildlife management and ecology. Emphasis is given to internships, research and field courses for hands-on skill development as upper level ECBIO electives.

Program Learning Outcomes

Graduates of the Environmental and Conservation program will:

- Effectively communicate in written and oral formats on complex environmental topics analyzing the pros/cons based on current scientific literature.
- Demonstrate synthesis of complex environmental data into a series of practical management recommendations for an outside agency.
- Successfully demonstrate knowledge of plant and animal species field identification.
- Explain environmental science and conservation concepts, relationships and best management practices (BMP) to a wide variety of audiences (public, K-12 audience, Board of Trustees, professional scientific community).
- Engage in professional experience in the field through hands on training for a competitive advantage on internships, research, fellowships and job placement.

Program Description

The new, innovative Environmental and Conservation Biology major prepares students for a wide range of environmental careers in government agencies, nonprofit organizations, research and consulting. The program emphasizes skills development in plant and animal field identification, Geographic Information Systems (GIS) technology, chemical analysis, experimental design, urban landscape planning, wildlife management and ecology. Exciting opportunities are provided for students to develop and apply their expertise through internships, research and field courses. These include marine conservation in Jamaica, wildlife management in Yellowstone National Park and water quality sampling techniques in the Delaware and Chesapeake Bays.

The Environmental and Conservation Biology check sheet can be found on page 145.

Health Sciences

Mission

By offering a strong foundation of natural science courses combined with human sciences, psychology and unique clinical experiences, the Bachelor of Science in Health Science prepares graduates for entry into professional and graduate schools in a variety of allied health fields.

Program Learning Outcomes

A Health Sciences graduate will:

- Demonstrate the ability to choose appropriate scientific and medical resources from library databases searches.
- Identify key anatomic structures, define their function and discuss their relationship to disease.
- Identify principles of normal psychological development and identify deviations from normal.
- Describe normal physical and mental development from birth to death.
- Identify and explain the role that disease can exert on a person's physical and mental function.

- Work productively and professionally with others in groups.
- Work effectively with others to debate an ethical dilemma.
- Apply principles of respect to patients that they encounter in a clinical environment.
- Be accepted to and enrolled in graduate programs or work in a health care field.

Program Description

The health care job market is one of the fastest growing segments of the economy today in the United States. The need for additional healthcare providers and allied health personnel is rapidly expanding. Graduates from the B.S. in Health Sciences will have the necessary preparation in science, psychology and the liberal arts to successfully gain admission into and complete a graduate program for many allied health professions. They will also gain the skills in information literacy needed to answer relevant professional questions through database searching and critical analysis of original research, as well as become proficient in written, verbal and electronic communication.

The curriculum includes a strong foundation of natural science courses combined with human sciences, psychology and unique practical and clinical experiences. Each student is required to complete an extensive volunteer and shadowing experience as part of their coursework. Students are encouraged to explore a variety of healthcare opportunities by shadowing and gaining patient contact at a variety of area hospitals and clinics. The free electives that are built into the curriculum allow students to explore an area of specialization or sample a variety of different courses that are offered at the University. Students also have the opportunity to study abroad.

Philadelphia University provides exceptional facilities for the Health Sciences program. In addition to the fully equipped genetics, microbiology and histology labs, there is a physical diagnosis lab and gross anatomy (cadaver dissection) lab which students will have the opportunity to explore. The small class size fosters peer interaction and a close-knit community of students and faculty.

Students pursuing a Bachelor of Science in Health Sciences will be prepared to enter into professional and graduate schools in a variety of allied health fields. Students can pursue a career or graduate study in diverse disciplines such as physician assistant studies, occupational therapy, physical therapy, exercise science, community health, social work, community counseling, education, research, rehabilitation, crisis intervention, healthcare administration, public health and human resource management. The opportunities are boundless.

The Health Sciences check sheet can be found on page 147.

Pre-Medical Studies

Mission

Pre-Medical Studies is an "umbrella major" providing academic and professional training to students planning on

attending medical school as well as other graduate health-care institutions. The major is distinguished by a series of unique upper level science courses, whose case history and problem-based learning approach mirrors that of first-year graduate students in the healthcare professions and which are designed to develop students' proficiency in interpreting complex scientific data. Students spend one-hundred hours developing their empathic, professional and clinical evaluation skills through two hands-on, off campus preceptorship experiences performed with licensed healthcare practitioners. Our graduates are nationally competitive, as evidenced by their MCAT, GRE and DAT scores, and over ninety percent of our students to date have gone on to various successful careers as physicians, dentists, physical therapists, veterinarians, pharmacists, optometrists, podiatrists and chiropractors.

Program Learning Outcomes

Upon graduation the Pre-Medical Studies major will be able to:

- Demonstrate knowledge of healthcare through hands-on training in HIPAA law, taking history and basic physical measurements and professional conduct with patients
- Demonstrate oral and written communication skills with both lay people and professionals
- Recognize and use medical terminology
- Develop formal, analytical, synthetic and problem-solving science skills
- Synthesize information from diverse sources to make decisions
- Recognize the social challenges faced in both national and global medical practice
- Comprehend and be able to explain a variety of commonly used clinical laboratory techniques
- Recognize and employ the professional empathy needed in an effective healthcare professional
- Demonstrate an optimal performance on national standardized graduate school exams (MCAT, GRE, DAT etc.)
- Recognize the varied healthcare careers and their spheres of expertise

Program Description

The future medical practitioner must be a capable scientist able to make independent judgments and data evaluations in order to treat the patient. It is the goal of the Bachelor of Science in Pre-Medical Studies to prepare students for these professions. Philadelphia University has a strong basis in healthcare stemming from a long-established Physician Assistant Studies program, Occupational Therapy and Midwifery programs. Combined with the University's diversity of focus, including both science and liberal arts strengths, this results in a graduate who has the analytical, verbal, written and empathic skills necessary to become an effective health practitioner.

Faculty involved in the Pre-Med curriculum have been active in developing novel methods of instruction and assessment of students skills, which include the use of case-history analyses, discussion of social and ethical aspects

of medicine and disease risk assessment through genetic monitoring. Students also develop their empathy and professional skills through two unique, three-credit preceptorships, when they receive off-campus training and work hands-on with healthcare professionals, several of whom are Philadelphia University alumni. As well as receiving grades for these experiences, students learn firsthand what being in healthcare means. At Philadelphia University, we are aware that a successful student is one who is nurtured and advised during their formative, science-intensive, four-year experience so that they can develop and discover all their talents. For the Pre-Med program, the mentoring and monitoring of their progress as they proceed through the curriculum is both via an effective Pre-Med Committee, and by dedicated Pre-Med advisors, all of whom are previous health care graduates. In order to be a successful candidate for any graduate school students must maintain a 3.0 minimum GPA, at least between their sophomore and senior years. Any student not maintaining a GPA commensurate with success in the major will be asked to transfer to another major by the Pre-Med Committee, as this will be considered ineffective progress towards graduation. Philadelphia University Pre-Medical Studies graduates have an excellent placement record in medical, osteopathic, dental and veterinary schools including University of Pennsylvania, Temple University, Thomas Jefferson University, University of Maryland, Philadelphia College of Osteopathic Medicine and New York College of Osteopathic Medicine. The Program has developed a scholarship program for Pre-Medical Students to attend a MCAT (Medical School Admission Exam) Preparation Program and has developed affiliation agreements with medical and other professional schools.

Articulation Agreements:

Articulation Agreement with Kornberg School of Dentistry (4+3)

Students enrolled in the Pre-Medical Studies Major will be required to follow a special curriculum, maintain at least a 3.2 GPA and take the Dentistry Assessment Test (DAT) in the summer between their sophomore and junior year. Acceptance to Kornberg will then be commensurate on a successful interview with Kornberg and the student obtaining the same mean DAT score as the incoming class for the fall of the following year. A successful student would then transfer to Kornberg at the end of their junior year. Credits for the final senior year and the undergraduate B.S. in Pre-Medical Studies, will then be provided by select courses taken by the students during the freshman doctor of dental medicine (DDM) graduate school program at Kornberg.

Articulation Agreement with Logan School of Chiropractic Medicine (3+3)

Students enrolled in the Pre-Medical Studies Major will be required to follow a special curriculum, and maintain at least a 3.0 GPA but need take no graduate assessment tests. Acceptance to Logan will then be commensurate on a successful interview and recommendation letters by pre-medical studies faculty. A successful student would then transfer

to Logan at the end of their junior year. Credits for the final senior year and the undergraduate B.S. in Pre-Medical Studies, will then be provided by select courses taken by the students during the freshman graduate school doctor of chiropractic (DC) program at Logan.

Affiliation Agreement with Philadelphia College of Osteopathic Medicine (PCOM)

Students enrolled in the Pre-Medical Studies Major will be required to maintain at least a 3.2 GPA during the program. They would then sit for the medical college assessment test (MCAT) and include PCOM on their list to the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS), in the summer between their junior and senior year. Acceptance to PCOM will then be commensurate on a score of at least 8 on each section of the MCAT (total of 24), a successful interview and favorable recommendation letters by pre-medical studies faculty. Upon graduation from Philadelphia University the student would then enter the doctorate of osteopathic medicine (DO) program at PCOM in the following fall.

The Pre-Medical Studies check sheet can be found on page 151.

Psychology

Mission

The Psychology curriculum is designed to provide students with a broad understanding of the goals and possibilities of the field of psychology. The curriculum provides students with an in-depth understanding of the principles of behavior, the scientific methods used to derive those principles and appropriate ways to apply such knowledge. The Psychology curriculum is designed to meet the educational requirements for graduate school in psychology or for students planning careers outside of academic psychology.

Program Learning Outcomes

Graduates from the Psychology major will be able to:

- Analyze and apply the scientific process to psychology.
- Locate, retrieve, critically evaluate and communicate scientific data and knowledge.
- Communicate effectively and professionally.
- Express expertise in specific content areas of psychology.
- Display knowledge of the ethical standards, personal integrity and professional responsibilities of psychologists.
- Apply principles and practice of core information and values in a psychology practice environment through internships and applied research.

Program Description

Psychology is the scientific study of behavior. The Bachelor of Science in Psychology is designed to provide students with a broad understanding of the goals and possibilities of the field. The curriculum provides students with an in-depth understanding of the principles of behavior, the scientific methods used to derive those principles and appropriate ways to apply such knowledge.

The Psychology curriculum is designed to meet the educational requirements for graduate school in psychology or for students planning careers outside of academic psychology. Students take a core group of courses that emphasize the research-based nature of psychology and select additional courses in psychology depending upon their interests and goals. At the senior level, students conduct an advanced research project and may pursue internships at local counseling centers, human-services agencies, hospitals, residential treatment centers or other locations.

Psychology graduates may choose to work in professions such as counseling, social work, education or research. Other positions available to Psychology majors include human resource management, rehabilitation, community counseling and crisis intervention. The major allows students the flexibility to pursue graduate studies in related disciplines such as education, occupational therapy and management.

The Psychology check sheet can be found on page 153.

JOINT DEGREE OFFERINGS

Occupational Therapy

Combined B.S. in Health Sciences/M.S. in Occupational Therapy

Combined B.S. in Psychology/M.S. in Occupational Therapy

Occupational therapy is a health care profession that helps people to maximize their functional independence after illness or injury, or develop the social and emotional skills necessary to participate fully in everyday life. Occupational therapists assist children with motor, social and learning needs to be successful in school activities and family life. They help adults to develop strategies to address the physical and emotional changes associated with rehabilitation or long term health needs. Therapy frequently involves assisting individuals to relearn old skills, develop new ways of doing, or adapt the environment to enable them to live satisfying and independent lives.

The Combined B.S. in Health Sciences/M.S. in Occupational Therapy or B.S. in Psychology/M.S. in Occupational Therapy Program is designed for students who know early on that they want to become occupational therapists. These dual degree programs allow students to seamlessly complete undergraduate and graduate degrees in less time than would be required to complete both of the degrees separately. Undergraduate courses and extra-curricular experiences provide students with a foundation to develop the knowledge, values and interpersonal skills needed for success as an occupational therapist.

During the first three years of undergraduate coursework, students complete major requirements for the bachelor degree, including College Studies courses and Occupational Therapy program prerequisites. Students who meet the graduate Occupational Therapy program progression criteria can matriculate into the master's program by enrolling in

first year Occupational Therapy graduate coursework during Year 4 of undergraduate studies. At the end of Year 4, students are awarded the bachelor degree in Health Sciences or Psychology and are eligible to participate in the May commencement ceremony. Upon completion of graduate Occupational Therapy program requirements in Year 6, the master's degree in Occupational Therapy will be awarded. Students receive their graduate degree in May and can participate in the May commencement ceremony. For more information about the M.S. in Occupational Therapy, refer to the Graduate Catalog.

Freshman Admission Option

Freshmen applicants who demonstrate the following profile will be considered for admission to the program:

- Minimum overall high school grade point average (GPA) of 3.0
- Minimum combined SAT score of 1000 for Critical Reading and Math, or 22 on the ACT
- Four years of science – strongly encouraged

Transfer applicants should contact the Office of Admissions to discuss entry requirements.

Progression Criteria

Students who demonstrate the following profile are guaranteed matriculation into the M.S. in Occupational Therapy Program:

- Completion of undergraduate major and college studies requirements
- Overall minimum 3.0 GPA for all college coursework (including transfer courses)
- Overall minimum 3.0 GPA in Occupational Therapy program prerequisites (minimum grades of "B-" or better in all Occupational Therapy program prerequisite courses)

By October 15 of the Year 3 (or equivalent) of undergraduate study, students should:

- Submit the matriculation documents identified below (available from the Occupational Therapy Department or on the program's web page: www.PhilaU.edu/OT)
 - Academic Standards Statement
 - Clinical Observation Document: documentation of at least 20 hours of clinical observation under the supervision of an occupational therapist
 - Program Prerequisite record
 - Submit current resume
 - Submit one letter of recommendation from PhilaU faculty
 - Submit career goals essay (no more than 500 words)
 - Complete the GRE or MAT (prior to July following Year 3 of studies)

Students who are unable to achieve the standards listed above are not eligible to matriculate into the M.S. in Occupational Therapy Program. They will complete electives, by advisement, during their fourth undergraduate year to complete the bachelor degree in their chosen majors. Students who wish to reapply to the OT graduate program

after receiving their bachelor degrees may be advised to repeat specified courses to raise their GPAs.

The Combined B.S. in Health Sciences/M.S. in Occupational Therapy check sheet can be found on page 125.

The Combined B.S. in Psychology/M.S. in Occupational Therapy check sheet can be found on page 131.

Physician Assistant Studies

Combined B.S. Health Sciences/M.S. Physician Assistant Studies

Mission

The mission is to provide students with the foundation of knowledge, technical skills and critical thinking necessary to competently perform the functions of the physician assistant profession in an ethical, empathetic manner working with a licensed practicing physician. A secondary focus is to prepare students to provide comprehensive medical services to diverse under-served patient populations in inner-city and rural locations.

Learning Outcomes

Physician Assistant graduates will:

- Elicit an accurate medical history including Chief Complaint, History of Present Illness, Past Medical History, Family History, Review of Systems, Social History and Sexual History in both a complete and directed format.
- Perform common clinical procedures.
- Define the important ethical issues involved with the medical care of patients and describe how these affect PA practice.
- Recognize when a problem is beyond the scope of the PA provider and refer the patient to her/his supervising physician, or recommend appropriate specialty consultation.
- Prudently recommend laboratory, radiology, cardiographic, and other ancillary diagnostic studies appropriate to the history and physical findings. Graduates must list the common contraindications and complications of these tests.
- Demonstrate competence in written, oral and electronic forms of communication. Approach patient encounters using language, body posture, facial expression, speech process and speech content that promote open communication and foster a trusting effective patient-provider relationship.
- Perform a computer medical literature search and critically evaluate the medical literature in terms of its relevance to clinical practice.
- Develop an appropriate treatment plan for common disorders that may include medications, surgery, counseling, therapeutic procedures, rehabilitative therapies or other therapeutic modalities.

Program Description

A physician assistant (PA) is a medical professional who practices medicine with the supervision of a licensed physician. PAs provide a wide variety of medical services traditionally performed by physicians. The concept for the profession originated in the early to mid-1960s as a way to enhance the provision of medical care to people residing in medically underserved areas. The care of the underserved remains an ongoing goal of the profession.

Physician assistants work in all 50 states, Guam and the District of Columbia in a wide range of medical settings including physicians' offices, hospitals, clinics, emergency departments, military and Veterans Administration installations, nursing homes, industrial health centers and correctional institutions. They work in conjunction with a physician and have a wide array of responsibilities including taking medical histories, conducting physical examinations, ordering or performing lab and other diagnostic tests, synthesizing data to make a proper diagnosis, developing a treatment plan, performing health-related counseling, performing various procedures such as casting and suturing and assisting in surgery. PAs can prescribe medication in all states.

The Physician Assistant Studies program is a comprehensive academic experience that stresses the practical application of current medical theory. Most of the program faculty are actively practicing health care providers with a great depth of knowledge and experience. Students are exposed to the clinical environment throughout their education with patient contact even during the classroom or didactic portion of the program. The Physician Assistant Studies program is fully accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA).

The typical student in the Physician Assistant Studies program will spend approximately \$3,000 on medical equipment, books, malpractice liability insurance and other program-related fees for both professional-phase years combined. This does not include tuition, housing, food, living expenses, travel costs, health center fees, graduation fees and pre-professional phase book costs. All of these costs, except book costs, are listed elsewhere in the University catalog.

While this is a full-time, day program, the clinical or practical portion may involve some night and weekend hours. Admission criteria, procedures and technical standards are listed in the Physician Assistant Studies Program Information Booklet available from the Office of Admissions and at www.PhilaU.edu.

Freshman Admission Option

This option is designed for students who have no, or few college credits (less than 16 credit hours). It is designed as a five-year course of study and includes complete undergraduate and graduate degrees. The first six semesters (three years) make up the pre-professional phase and are designed to academically prepare students for PA training and provide a comprehensive general education. The pre-professional phase consists of medically related science and psychology prerequisite courses along with all of the components of the College Studies program. After successful completion

of the pre-professional phase (which includes maintaining the required grade point averages of 3.0 cumulative and 3.0 science and core prerequisite, acquiring the required letters of reference, completing a personal essay and obtaining approval of the PA Program Admissions Committee), students are admitted to the professional phase. Students must complete all required courses in the pre-professional phase to enter the professional phase.

The professional phase is 25 months of continuous study and includes the didactic level that consists of three semesters of classroom and laboratory work in basic and applied medical science, and the clinical level that consists of six rotations and four preceptorships at a variety of clinical sites such as hospitals and medical offices. Students must complete all didactic-level courses before they can enter the clinical level. The first semester of the professional phase is composed of mandatory foundation courses. The remaining courses in the professional phase are graduate courses.

After successful completion of the fall semester of year four (the first professional-phase semester), students will receive a Bachelor of Science in Health Sciences and be eligible to participate in the May Commencement ceremony. Upon completion of the full five-year program, graduates will receive a Master of Science in Physician Assistant Studies, be eligible to sit for the Physician Assistant National Certifying Examination, and be able to participate in the Commencement ceremony.

Transfer Student Option

This option is designed for students with a substantial number of college credits (approximately 64), but who do not have a bachelor's degree. This option includes an accelerated bachelor's degree-completion program, and the complete professional-phase Physician Assistant Studies Program. Students wishing to enter the program in this option must meet two sets of prerequisite requirements prior to entrance into the program. The first is the PA-specific prerequisites that include science and psychology courses. The second consists of the College Studies prerequisites that are general education courses required for the bachelor's degree. Both sets of requirements must be met before a student can gain entrance into the program. These prerequisites are listed in the Physician Assistant Studies Program Information Booklet available from the Office of Admissions and at www.PhilaU.edu.

Students admitted into this option typically spend three years at the University. The first year (two semesters) comprises the pre-professional phase that consists of advanced science and psychology courses, and the remainder of the College Studies or general education program. The pre-professional phase may be shorter, depending on the number of applicable transfer credits a student has, but must be at least one semester. After successful completion of the pre-professional phase, students will enter the professional phase, which is described above.

After successful completion of the fall semester of year two (the first professional-phase semester) students will receive a Bachelor of Science in Health Sciences and be

eligible to participate in the May Commencement ceremony. Upon completion of the full three-year program (both the pre-professional and the professional phases) graduates will receive a Master of Science in Physician Assistant Studies, be eligible to sit for the Physician Assistant Studies National Certifying Examination and be able to participate in the Commencement ceremony.

Clinical Education

Upon successful completion of the didactic level of the professional phase, the PA student proceeds into the clinical education level of the program. The PA student will spend 36 weeks in Clinical Rotations (six 6-week blocks) and another 24 weeks in Preceptorships (four 6-week blocks) before completing the course of study for Physician Assistant Studies. These experiences most likely will involve night and weekend hours.

Clinical Rotations (6 credits/rotation)

The clinical rotations are six-week blocks in the areas of medicine, pediatrics, surgery, psychiatry/mental health, women's health and emergency medicine, and are designed to expose the PA student to patient care in a variety of settings. The student is directly involved with the evaluation and management of patients to the extent that the clinical preceptor or supervisor is comfortable with the level of knowledge and skills of the PA student. Typically, the student spends at least 40 hours per week in the clinical setting, attending to patients and partaking of continuing medical-education seminars.

Preceptorship IA, IB, IIA, IIB (6 credits/ Preceptorship)

These clinical training experiences are designed to enhance the PA student's knowledge, technical skills, clinical judgment and confidence in the evaluation and management of common medical problems. One of these must be done as two 6-week blocks in an ambulatory, primary-care setting such as an outpatient family practice, general practice or general internal medicine office or center.

The remaining preceptorship experiences include the Floating Medicine Block in which students do six additional weeks in a medically related specialty, such as family, internal or geriatric medicine, and the clinical elective. During the elective, students can spend more time in one of their rotation specialties or gain experience in other settings such as neonatology, HIV, correctional medicine, urology, orthopedic surgery, cardio thoracic surgery and others. Continuity of care and regular feedback from clinical faculty are the hallmarks of these experiences.

PA Program Technical and Professional Standards

For admission to the program, candidates must:

- Have the academic ability to learn a large volume of technically detailed information and be able to synthesize and use this data to solve complex clinical problems. This information must be acquired in a short and intense period of study that requires well-developed study skills and a high level of motivation and may require considerable personal and financial sacrifice.

- Possess the emotional maturity and stability to approach highly stressful human situations in a calm and rational manner.
- Have the ability to effectively communicate with ill patients from a wide diversity of cultural and socioeconomic backgrounds in an empathetic and sensitive fashion.
- Have well-developed oral and written communication skills.
- Have comfort with the role of a dependent practitioner operating under the supervision of a licensed physician, while simultaneously feeling comfortable with the large amount of responsibility that goes along with the delivery of patient care in sometimes remote locations.
- Display strong ethical integrity consistent with working as a healthcare professional.
- Have sufficient physical abilities in the areas of sensory function (vision, hearing and touch sensation), hand-eye coordination, and neurologic and muscular coordination and control to competently perform the technical activities that are a critical part of the program and profession, including:
 - Physical examinations, which include visual inspection, listening to heart and lung sounds with a stethoscope, examination by touch to gather information such as skin temperature and texture and other maneuvers.
 - Performance and interpretation of diagnostic studies such as blood tests, EKGs and X-rays.
 - Surgical assisting, which can involve activities such as control of bleeding and suturing (wound closure by placing stitches).
 - Performing common procedures such as applying casts, suturing, cardiopulmonary resuscitation (CPR), venipuncture (placing needle into a vein to collect a blood sample) and starting an intravenous access line.

The Joint B.S. Health Sciences/M.S. in Physician Assistant Studies check sheet can be found on page 129.

College Studies Program

Mission

The College Studies program — Philadelphia University's general education core curriculum — promotes a strong liberal arts and sciences education alongside the University's professionally oriented majors. Students progress through a sequence of foundational courses, making connections between disciplines and viewing their own fields of choice through wider social, economic, political and cultural lenses. The liberal arts and sciences form the foundation of every student's major, bringing classmates together to share a common educational experience and to learn from each other's diverse perspectives.

Two realities fuel our College Studies program: the inevitability of future change — in the economy, technology, the workplace or career goals — and the necessity for effective

communication, critical thinking, research and information literacy skills. The College Studies program at the University promotes the development of these lifelong skills through a structured and progressive approach to the liberal arts and sciences that prepares students for a constantly changing world in which career success requires more than just the latest technical skills. As a program, College Studies comprises about 40 percent of students' baccalaureate experience and represents the most significant common factor in their education. Offering core courses and options within categories, the program is sequenced over four years to meet the intellectual needs of students at each level of development.

Program Learning Outcomes

Through the College Studies general education program, graduates of the B.S. programs at Philadelphia University will:

- Understand the cultural, political and economic development of the United States and the challenges of citizenship in a diverse, pluralist society and in the global community.
- Understand the interdependence of the world, including its history, societies, cultures and environments.
- Connect learning across disciplines and between liberal education and professional studies as a means of making effective contributions to their professions and their communities.
- Develop effective critical thinking, written and other forms of communication, quantitative, research and information literacy skills.
- Engage in ethical and moral reasoning in their personal and professional lives.
- Develop the cross-cultural understanding and communication skills necessary to live and work in a multi-cultural society and in an interconnected world.
- Understand the methodologies and concepts central to the humanities, social sciences and natural and physical sciences to enrich their understanding and aesthetic appreciation of the world.
- Become successful collaborative, reflective, intentional and life-long learners.

Program Description

College Studies courses introduce students to the major modes of knowledge, such as the nature of the scientific method and the methods of analysis used by social sciences. They also seek to develop awareness of the connections among academic disciplines. In the first year of study, the primary focus is upon the American experience. Students examine the implications of a multicultural society and its impact on the workplace in the United States, as well as abroad. Courses throughout the remaining years of the program expand students' understanding of the wider international context. Students may take foreign language courses, as well as regional/area studies to promote an understanding of the increasingly interdependent world.

To promote effective communication skills, the College Studies program has a strong emphasis on writing, with two courses devoted specifically to writing, and other courses in which writing is an important element, including at least one writing-intensive course in every major.

The program's innovation places the University in the national forefront of efforts to reform general education in higher education. A recent independent outside review described the College Studies curriculum as "a very strong program informed by a progressive vision of general education reflecting the best practice in the field today at a national level." It has been recognized by the support of major government grants from the National Endowment for the Humanities, the Fund for the Improvement of Post-Secondary Education and the American Council on Education, and participated in the Integrative Learning Project sponsored by the Carnegie Foundation for the Advancement of Teaching and the Association of American Colleges and Universities.

Sequencing of College Studies Courses

(See table on page 70)

College Studies courses are sequenced over four years in order to meet the intellectual needs of students at each level of their education. The program is also designed to allow students to begin study in their major in the first year of their undergraduate coursework, unlike general education cores at other institutions. With the exception of the arts and cultures and foreign language groups, which may be taken any time during the four-year program, each category of courses will be taken at a specific time in the student's major program. Students should consult with their advisors before registering for subsequent semesters. The chart that follows summarizes the sequencing of the College Studies program.

Fundamentals Courses

Some students begin the College Studies sequence with appropriate preparatory courses in reading, writing and mathematics (determined by placement testing). Fundamentals of College Writing (WRTG-099), Fundamentals of College Reading and Study Skills (READ-099) and Fundamentals of College Mathematics (MATH-099) are listed in the course-description section.

Description of College Studies Groups and Courses

The following provides a description of the categories or groups of courses, which are taken in a prescribed sequence in the College Studies program. The groups and courses are described in the sequence in which students will take them.

Writing Group: Writing Seminar I (WRTG-101) and Writing Seminar II (WRTG-21X)

The College Studies program includes two courses in which writing is a central focus. Students take the first course in the freshman year and the second in the sophomore year. Some students may begin the sequence with Fundamentals of College Writing (WRTG-099) (determined by placement testing).

WRTG-099 Fundamentals of College Writing

This is a theme-based writing course designed for students who need additional preparation before taking Writing I. Students who place into this course are given background information about the content of Writing I, which prepares them to read and write college-level academic prose. Students for whom English is a second language take an ESL version of this course, though students should only be placed in WRTG-098ESL after designated faculty members have evaluated a writing sample. Credits may not be applied toward graduation requirements, though the grade, as with other courses, does affect students' overall grade point average. For more information, see "Fundamentals Courses" in the section "Academic Policies."

Writing Seminar I

The first of two core writing-specific courses in the College Studies Program, WRTG-101 Writing Seminar I: Finding Philadelphia is a theme-based writing course designed to be taken in the first year of study. The interconnected skills of careful reading, critical thinking and cogent writing are the primary concerns of this course. The seminar has a specific topic, focused on aspects of diversity in the Philadelphia cultural experience. Through reading, discussing and writing about a variety of texts that share a common theme, students learn the rudiments of writing college-level academic papers. Honors and English as a Second Language versions of this course are available.

Writing Seminar II

All versions of this sophomore level writing course focus on problem solving and thinking analytically about professional concerns. Students address key issues in different disciplines and professions. Students select one course from the following:

WRTG-211	Writing Seminar II: Business
WRTG-215	Writing Seminar II: Architecture and Design
WRTG-217	Writing Seminar II: Science, Technology, Engineering and Health Professions

Scientific Understanding

All students will complete two science courses in order to understand the scientific method and its application. Some students will take one science course in their first year and a second the following year, while others will take both College Studies science courses in the first year. Students should take the sequence that meets the requirements of their major and is of greatest interest.

SCI-101	Environmental Science
SCI-102	Exploring Science
SCI-108	Sustainability & Eco-Innovation
BIOL-101	Current Topics in Biology
CHEM-101	General Chemistry
BIO-106	Biology for Design: From Biological Adaption to Biomimetic Design
PHYS-101	General Physics
CHEM-103/103L	Chemistry I/Chemistry I Lab
CHEM-104/104L	Chemistry II/Chemistry II Lab
BIOL-103/103L	Biology I/Biology I Lab
PHYS 201/201L	Physics I/Physics I Lab

Quantitative Reasoning

The College Studies curriculum requires every Philadelphia University graduate to complete a mathematics education that includes differential and integral calculus, to ensure that our graduates have developed quantitative reasoning skills that strengthen their critical thinking abilities. To fulfill this core curriculum requirement, students must complete the highest calculus course for which they are qualified, up to Calculus I.

<i>Quantitative Reasoning I</i>	<i>Quantitative Reasoning II</i>
MATH-100/101 Finite Mathematics	MATH-103 Introduction to Calculus
MATH-102 Pre-Calculus	MATH-103 Introduction to Calculus
MATH-102 Pre-Calculus	MATH-111 Calculus I
MATH-111 Calculus I	MATH-112 Calculus II
MATH-103 Introduction to Calculus	Free Elective

Arts and Cultures - one course

Courses in this group are divided between those dealing with visual literacy and those that help students "read" the performing arts or explore the notion of aesthetic knowledge itself. This course may be taken at any time.

ARTS-105	Music
ARTS-120	Performing Arts
ARTS-123	Ideas and Images (not for Architecture or any design majors)
ARTH-101	History of Western Art I
ARTH-102	History of Western Art II
AHIST-205	History of Architecture & Interiors I
DEC-101	Integrative Design Process

Historical Understanding I - one course

The course in this category helps students understand the significance of change over time and the way in which our present is shaped by the past. American Transitions focuses on the various transformations of U.S. society since the end of the Civil War, with a special emphasis on Philadelphia as an example of America's historical development.

HIST-114	American Transitions
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World Languages and Area Studies - two courses

All courses in this group encourage students to value alternative ways of thinking and living and provide knowledge about other societies and cultures. Students may take courses in the World Languages offerings or study cultures in the Area Studies offerings. All courses in this group focus on understanding cultural difference and learning how to learn about other cultures and other societies.

Students may take:

- Two courses in Area Studies; or
- One World Languages course and one course in Area Studies; or
- Two courses in the same World Language.

Language Studies:

Students must take sequenced levels of the same language to satisfy the World Languages requirement; for example, a student cannot take Spanish I and French I.

Language courses:

ARAB-101, ARAB-102 Arabic I and II
 CHIN-101, CHIN-102 Chinese I and II
 FREN-101, FREN-201, FREN-301, FREN-401 French I-IV
 GER-101, GER-201 German I and II
 ITAL-101, ITAL-201, ITAL-301, ITAL-401 Italian I-IV
 JAPN-101, JAPN-201, JAPN-301, JAPN-401 Japanese I-IV
 SPAN-101, SPAN-201, SPAN-301, SPAN-401 Spanish I-IV

Area Studies:

AREAST-201 Europe
 AREAST-202 Latin America
 AREAST-205 East Asia
 AREAST-208 Africa
 AREAST-210 Middle East
 AREAST-220 Great Britain: Study Abroad Preparation
 AREAST-226 Italy: Study Abroad Preparation
 AREAST-227 India and South Asia

Social Sciences I - one course

Courses in this group acquaint students with the social sciences as a way of looking at human behavior. Social Sciences I courses present a global perspective based on the understanding that we live in an increasingly interdependent world. These courses are interdisciplinary and give students a broad introduction to social scientific methods.

SOC-201 Class, Gender & Race in World Societies
 SOC-204 Personality and Global Cultures
 SOC-208 The Individual and the Global Environment
 SOC-211 Poverty and Power in the Global Economy
 SOC-225 Global Politics

Humanities I - one course

Courses in this group examine aspects of the human endeavor through the study of areas such as literature, philosophy, ethics and religion. Using primary texts, these courses address human beliefs and values, including religion and ethical reasoning.

HUMN-225 Exploring World Literature
 HUMN-215 Evil and Good
 HUMN-223 World Philosophies

Junior Seminars: Liberal Arts Seminars and Integrative Professional Seminars - two courses

Junior seminars are upper-level writing-intensive courses that explore a specific topic in detail. There are two categories of Junior Seminars: Liberal Arts Seminars, which explore select topics in history, the humanities, and the social sciences; and Integrative Professional Seminars, which feature topics related to the University's professional majors. Students may take one course from each category or two courses from the Liberal Arts Seminars category.

Liberal Arts Seminars

JSLA-360 Creative Writing: Shaping Narrative and Experience
 JSLA-361 From Fiction to Film
 JSLA-362 Artist & Society in Literature and Film
 JSLA-363 Shakespeare and Popular Culture
 JSLA-370 U.S.: Recent Past
 JSLA-380 Human Rights
 JSLA-381 Gender Studies
 JSLA-390 The Urban Experience
 JSLA-391 The African-American Experience

Go to www.PhilaU.edu/JuniorSeminars before pre-registration to check for additional course offerings in this category.

Integrative Professional Seminars

JSINT-384 Applied Professional Ethics

Go to www.PhilaU.edu/JuniorSeminars before pre-registration to check for additional course offerings in this category.

Capstone Course in College Studies:**COLLST-499 Contemporary Perspectives**

The capstone of the College Studies program, Contemporary Perspectives draws upon the previously completed College Studies courses and makes connections between students' majors and the liberal arts and sciences. Students explore major economic, political and cultural trends in the post-1945 world. All students complete a final research project, which addresses an issue in the professions in light of current international trends. All students take this 4-credit capstone core course in their senior year. This course is writing intensive and cannot be taken for credit/no credit.

Policies**College Studies and Transfer Students**

The University is mindful of the need to be accessible to students who transfer from two-year colleges and other four-year institutions. In general, students who transfer academic credit from other colleges to the bachelor's degree program at Philadelphia University may have that credit apply toward the requirements of the College Studies Program.

Courses for which credit can be transferred include all of those College Studies courses for which equivalent courses have been completed at other accredited institutions. Since College Studies courses are designed specifically for Philadelphia University, the University will determine transfer course equivalency.

Two specific courses in the College Studies curriculum, Writing Seminar II and Contemporary Perspectives, serve as keystone courses that require students to reflect on liberal-professional connections at Philadelphia University and to integrate the multiple academic skills they have learned in the other College Studies courses they have completed. Therefore, AP/transfer credit is not awarded for Writing Seminar II or Contemporary Perspectives.

Advanced Placement and College Level Examination Program (CLEP) credits will be accepted under the policy that is currently in effect at the University. Their acceptability to the curriculum will be determined in the same manner as transfer credit from other colleges.

Transfer students should meet with their academic advisors during orientation or at the beginning of their first semester to review whether/how courses taken at other institutions apply to their degree requirements at Philadelphia University.

College Studies: The general education core curriculum at Philadelphia University

Select appropriate number of courses from each block.

Revised August 2011

Year 1 (1-30 credits)	Year 2 (31-60 credits)	Year 3 (61 to 90 credits)	Year 4 (90-120+ credits)
100's	200's	300's	400's
(Language courses can be taken in any year)	Language or Area Studies Select <u>two</u> courses: (6 cr.) Arabic I-II ARAB-XXX Chinese I-II CHIN-XXX Japanese I-IV JAPN-XXX Spanish I-IV SPAN-XXX French I-IV FREN-XXX German I-II GER-XXX Italian I-III ITAL-XXX	PREREQ for AREAST: WRTG-101, HIST-114 AREAST-201: Europe AREAST-202: Latin America AREAST-205: East Asia AREAST-208: Africa AREAST-210: Middle East AREAST-220: Great Britain (Study Abroad Preparation) AREAST-226: Italy (Study Abroad Preparation) AREAST-227: India and South Asia	Senior Capstone Course (Writing Intensive) PREREQ: HUMN-1xx, one Junior Seminar, one Language/Area Studies One course for all students (4 cr.) COLLST-499: Contemporary Perspectives
Science I and II Select <u>two</u> courses: (6-8 cr.) Check requirements for major Non-science majors SCI-101: Environmental Science SCI-102: Exploring Science SCI-108: Sustainability and Eco-Innov. BIOL-101: Current Topics in Biology CHEM-101: Gen. Chemistry PHYS-101: Gen. Physics BIOL-106: Biology for Design	Science majors CHEM-103: Chemistry I (4 cr.) BIOL-103: Biology I (4 cr.) PHYS-201: Physics I (4 cr.)	Junior Seminars (Writing Intensive) PREREQ: WRTG-2xx, SOC-2xx Select <u>two</u> courses: one from each category below or two Liberal Arts Seminars (6 cr.) Liberal Arts Seminars JSLA-360: Creative Writing JSLA-361: From Fiction to Film JSLA-362: The Artist & Society in Literature and Film JSLA-363: Shakespeare and Contemporary Culture JSLA-370: The U.S.: The Recent Past JSLA-380: Human Rights JSLA-381: Gender Studies JSLA-390: The Urban Experience JSLA-391: The African-American Experience (Go to www.PhilaU.edu/JuniorSeminars to check for additional offerings in this category) Integrative Professional Seminars JSINT-384: Applied Professional Ethics (Go to www.PhilaU.edu/JuniorSeminars to check for offerings in this category)	
Quantitative Reasoning I and II Select one of the sequences below (depending on major and placement): (6-8 cr.) MATH-100/1: Finite Math MATH-103: Introduction to Calculus or MATH-102: Pre-Calculus MATH-103: Introduction to Calculus or MATH-102: Pre-Calculus & MATH-111: Calculus I or MATH-103: Introduction to Calculus and one Free Elective or MATH-111: Calculus I and one Free Elective	Social Sciences I PREREQ: WRTG-101, HIST-114 Select <u>one</u> course: (3 cr.) SOC-201: Class, Gender & Race in World Societies SOC-204: Personality & Global Cultures SOC-208: Individual & The Global Environment SOC-211: Power and Poverty in the Global Economy SOC-225: Global Politics		
Writing Seminar I One course for all students (3 cr.) WRTG-101: Writing Seminar I: Finding Philadelphia	Writing Seminar II PREREQ: WRTG-101, HIST-114 Select <u>one</u> course: (3 cr.) WRTG-211: Business WRTG-215: Design WRTG-217: Science, Engineering, Technology, and Health Professions		
Historical Understanding One course for all students: (3 cr.) HIST-114: American Transitions	Humanities I PREREQ: WRTG-101, HIST-114 Select <u>one</u> course: (3 cr.) HUMN-215: Evil and Good HUMN-223: World Philosophies LIT-225: Exploring World Literature		
Arts & Cultures (Non-Design Majors) Select <u>one</u> course: (3 cr.) ARTS-120: Performing Arts ARTS-123: Ideas and Images (not for School of Arch or <u>any</u> Design major) ARTS-105: Music ARTH-101: History of Western Art I ARTH-102: History of Western Art II AHIST-205: History of Architecture & Interiors I DEC-101: Integrative Design Process ARCH-204: Great Buildings (not for Arch, L/Arch, ID or HPVS)	Arts & Cultures (Design Majors) Select <u>one</u> course: (3 cr.) Textile and Fashion Design Majors ARTH-101: History of Western Art I Architecture Majors AHIST-205: History of Architecture All Other Design Majors Select <u>one</u> course: (3 cr.) ARTH-101: History of Western Art I ARTH-102: History of Western Art II ARCH-204: Great Buildings (not for Arch, L/Arch, ID or HPVS)		
Total: 15-22 credits	Total 12-13 credits	Total 12 credits	Total: 4 credits