Philadelphia University
Catalog 2007-2008

School House Lane and Henry Avenue
Philadelphia, Pennsylvania 19144-5497

215.951.2700

www.PhilaU.edu
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**Anti-Discrimination Policy**

Philadelphia University does not discriminate on any condition of ethnicity or ancestry, or on the basis of creed, race, color, sex, age, religion, national origin, marital status, sexual orientation or disability in its admissions, education programs, activities or employment practices. This policy is in accordance with state and federal laws, including Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

The programs, policies, procedures, requirements, tuition and fees described in this catalog are subject to change without notice, at the discretion of the University.

**Responsibility to Keep Informed**

Students are ultimately responsible for their own progress toward graduation; they are expected to use the catalog as a reference handbook and to familiarize themselves with the principal policies and procedures contained in it. The online version of this catalog (www.philau.edu/catalog) will be updated annually. Students are responsible for monitoring the Web site concerning changes to policies and procedures that might affect their progress toward graduation and regularly check campus mailboxes and Philadelphia University email as a means of keeping informed.
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A Brief History of the University

Philadelphia University was founded in 1884 as the Philadelphia Textile School, in the wake of the 1876 Centennial Exposition. A group of textile manufacturers, led by Theodore Search, noticed a sizeable gap between the quality and variety of American textile products and those displayed by European mills. To address this, the group established the School to educate America’s textile workers and managers.

Several years later, the School affiliated with the Pennsylvania Museum (now the Philadelphia Museum of Art) and School of Industrial Art. By the mid-1890s, the School had settled at Broad and Pine Streets in downtown Philadelphia. The School survived the Depression and entered a new period of growth at the outset of World War II. In 1941, the School was granted the right to award baccalaureate degrees and changed its name to the Philadelphia Textile Institute.

By 1949, the School, which was no longer affiliated with the museum, began conducting classes at its present site in the East Falls section of Philadelphia. Throughout the 1950s, the School continued to grow, and in 1961, changed its name to Philadelphia College of Textiles & Science.

The student population doubled from 1954 to 1964, and again by 1978. Programs in the arts and sciences and business administration were added. The institution purchased an adjoining property in 1972, doubling the size of its campus.

As Philadelphia College of Textiles & Science, the institution offered its first graduate degree, the Master of Business Administration in 1976. With the purchase of properties in 1980 and 1988, the size of the campus nearly doubled again and grew to include additional classrooms, research laboratories, student residences and athletic facilities. In 1992, the 54,000-square-foot Paul J. Gutman Library was built.

The College continued throughout the '90s to provide its students with the highest quality education and real-world experience demanded by their chosen professions, adding majors in a wide range of fields. To better reflect the institution’s breadth and depth, the College applied for and was granted university status by the Commonwealth of Pennsylvania in 1999. And, in a historic move, the Board of Trustees voted to change the School’s name to Philadelphia University, making it the only private university to be named after the City of Philadelphia. Philadelphia College of Textiles & Science became Philadelphia University on July 13, 1999.

The University now has six schools, which includes the Schools of Architecture, Business Administration, Design and Media, Engineering and Textiles, Liberal Arts, and Science and Health.

Mission Statement

Philadelphia University is a student-centered institution that prepares graduates for successful careers in an evolving global marketplace. By blending the liberal arts and sciences, professional studies, interdisciplinary learning and collaborations in and out of the classroom, students learn to thrive in diverse and challenging environments. Our students are encouraged to form supportive relationships with each other as well as faculty, staff and alumni in an academically rigorous setting that is focused on intellectual and personal growth. Philadelphia University is an experiential learning community where integrity, creativity, curiosity, ethics, responsibility and the free exchange of ideas are valued.

The University Today

At Philadelphia University, we believe that education is a lifelong experience. Since the late 19th century, we have been a leader in professional education — helping individuals meet the challenge of achieving their goals. Our innovative programs prepare our students for 21st-century careers by giving them the Power to Do.

Our graduates have consistently excelled in textile engineering, design, materials management and manufacturing. Today, Philadelphia University’s alumni are global leaders in design, architecture, fashion, business, engineering, health professions, textiles, materials technology and science.

To prepare such leaders, academic programs are grounded in the arts and sciences within an integrated curriculum and are taught with a hands-on approach by dedicated faculty. Our faculty are teachers, researchers and practitioners who are passionate about the University’s mission.

Here, personal attention and ongoing advisement are cornerstones. From the moment students enroll, they have a network of resources to help them transition to a university environment, support them academically and facilitate their personal and professional development. These benefits, together with an emphasis on quality education, are the reasons why we bring out the best in every student.
Philadelphia University, founded in 1884, is a private university with 3,100 part- and full-time students from 38 states and 30 countries. The University offers more than 50 undergraduate and graduate degree programs leading to the Bachelor of Science, Bachelor of Architecture, Bachelor of Landscape Architecture, master’s degrees and a doctoral degree in Textile Engineering and Science. Academic programs encompass architecture, design, business, engineering, textiles, fashion, science and health.

The Campus

The 50 buildings on the University’s 100-acre campus range from historic Victorian mansions to contemporary classroom, library and residential facilities. The latest additions – The Kanbar Campus Center, a 72,000 square-foot social hub for students, faculty and staff, and the new Athletic and Recreation Center have transformed our main campus and are having a dramatic impact on the academic and social environment for all members of the University Community. The Tuttleman Center, a 31,500 square-foot, high-tech academic facility, is fully wired and offers students and faculty access to the most sophisticated technology available.

The tree-lined Main Campus is located on the edge of Philadelphia’s Fairmount Park in the beautiful residential area of East Falls, 15 minutes from historic Center City Philadelphia. Today over 50 percent of the University’s students live in on-campus housing, including co-ed and single-sex residence halls, town homes and two- or three-bedroom apartments. And about 25 percent live in off-campus housing close to the University.

The Philadelphia University campus is wired with a sophisticated network directly to the desktop providing campus-wide file-transfer capability, personal directories, email and high-speed Internet access. The campus’s advanced technology also provides voice mail and cable television to anyone living in the residence halls or townhouses.

The new Athletic and Recreation Center is home to three regulation-size basketball courts, a state-of-the-art fitness center, aerobics studio, racquetball court and elevated jogging track, as well as a 251-space underground parking garage. In addition, Athletic facilities on campus include a baseball field, softball field, tennis courts, and soccer and lacrosse field.

The University is also close to beautiful countryside, big city life, concerts, galleries and museums, great restaurants and theaters.
Admissions

Classification: Day Division or Evening Division Student. Students are classified as either day division or evening division for academic advisement and administrative purposes, not in consideration of the time of the day classes are attended.

For information on graduate degree programs, contact the Office of Graduate Admissions 215.951.2943 gradadm@PhilaU.edu, www.PhilaU.edu/graduate

Day Division Programs
Day division students contact Office of Admissions 215.951.2800 or 1.800.951.7287 admissions@PhilaU.edu

Students who apply to the University should be seeking a sound and challenging collegiate education and have demonstrated an ability to be successful in such a program by secondary school or prior college/university performance and preparation. Each student is reviewed individually and evaluated on the basis of educational background, including course preparation and grades earned.

The University reviews applications and makes admissions decisions on a rolling basis. Students must file a completed application accompanied by a nonrefundable application fee of $35 and the appropriate academic credentials mentioned below. All applicants must complete the requirements for a high school diploma or submit the results of the GED.

Prospective high school students should submit an application early in their senior year. Applications reviewed after February 1 will be considered on a space-available basis.

To be considered for admission, freshman applicants must submit official academic credentials with 15 units of secondary school credit and must have taken the Scholastic Aptitude Test (SAT) or the American College Test (ACT). For information about SAT I and ACT writing test requirements, please contact the Office of Admissions. Required academic or college preparatory courses are four English, three Mathematics (including Algebra II and Geometry), three History and Social Science, two Laboratory Science, and three elective courses.

Home-schooled and prospective students who have been away from high school for several years are also encouraged to apply for admission. Interested applicants should contact the Office of Admissions to discuss application requirements.

Students wishing to transfer must submit official transcripts from all colleges or universities attended. If a student has earned less than 30 college credits, an official secondary school record and SAT or ACT scores are also required. For information regarding transfer student application deadlines, please contact the Office of Admissions.

Evening Division Programs
Evening division students contact Office of Continuing and Professional Studies 215.951.2900 evening@PhilaU.edu

Prospective students for programs delivered through the evening division should contact the Office of Continuing and Professional Studies for application information at 215.951.2900 or via email at evening@PhilaU.edu. Degree programs are designed, in most cases, to accommodate adults whose professional obligations prevent them from enrolling full-time in regularly scheduled day classes. The University has decided to phase out traditional programs through 2007. Therefore, only existing students may continue to register for these classes.

The evening division’s new student body is primarily composed of adults who are seeking a college education leading to a Bachelor of Science in an accelerated format. Some individuals are returning to higher education after their formal education has been significantly interrupted by a period of work, military service, homemaking, child rearing or some combination of these. Some wish to return to higher education to learn new concepts and skills, to do refresher work in a particular field, to prepare for a new career or experience intellectual or social stimulation.
Prospective students should refer to the Continuing Studies section of this catalog or contact the office directly at 215.951.2900 for more specific information.

Applications are accepted for the evening division on a rolling basis.

**Transfer Students**

Philadelphia University welcomes applications from transfer students for enrollment in day or evening programs. Transfer students may be awarded transfer credits provided a “C-” or better is earned in the course from a properly accredited institution. Transfer students in the day division are expected to complete a minimum of 60 credits at the University with at least 12 credits in upper-division work in their major field and six credits in College Studies. Requirements are different for transfer students in the evening division. Contact the Office of Continuing and Professional Studies to learn more.

**International Students**

International students who wish to enter Philadelphia University must submit the appropriate application and translated copies of their secondary school and college credentials by February 1. International students are eligible for day division admission only.

If English is not the native language of the student, TOEFL scores (Test of English as a Foreign Language) should be forwarded to the Office of Admissions. International students must make definite arrangements to meet all financial obligations while attending the University. Financial aid is not available to international students. However, International Merit Scholarships are awarded to academically eligible students. A statement of financial support and bank statements indicating sufficient funds must be included with the application. The I-20 immigration form will be issued following acceptance and payment of a matriculation deposit to the University.
Financial Information

Billing questions? Contact Student Accounts Office
215.951.5988, studentaccts@PhilaU.edu.
Go to www.PhilaU.edu/business for more information.

Annual Expenses for 2007-2008
Full-Time Student
(12 or more credits and fewer than six courses per semester)

Comprehensive Fees:
Undergraduate Day

Tuition (annual rate)* $25,386
(includes Physician Assistant pre-professional phase)
Students registering for an overload $847/per credit
(six or more courses per semester)
Physician Assistant Program** $29,253
(professional phase)

Room*
Residence Halls $4,258
Townhouses $5,990
Apartments $6,234

Board*
19-Meal Plan $4,312
14-Meal Plan $4,100
(upperclassmen only)
10-meal plan $3,022
(non-residence halls)
5-meal plan $1,614
(non-residence halls)

* Cost per semester is 1/2 the annual rate
** Cost per semester is 1/3 the annual rate
 Included in the above comprehensive fee is use of the Paul J. Gutman Library, student center, gymnasium and athletic fields; admission to all on-campus athletic events and cultural programs; and subscriptions to student publications.

Other Fees:
Full-Time Undergraduate Day
1. Application Fee $35/student
2. Credit by Examination $820/course
3. Room Security Deposit $250/resident student
4. Room Reservation Deposit $150/resident student
5. START Program Fee $100/new student
6. Graduation Fee $60/student (graduates only)
7. International Student Fee $55/semester
8. Health Center Fee $35/semester
9. Parking Decal $25/semester
10. Lost Campus Card Replacement $25/card

Part-Time Student
(per credit hour unless otherwise indicated)

Undergraduate Day

Tuition $820
Credit by Examination $820/course
Application Fee $35/student
Graduation Fee $60/student
(graduates only)

Undergraduate Evening

Tuition $450
Tuition-Online Courses $518
Credit by Examination $450/course
Application Fee $35/student
Graduation Fee $60/student (graduates only)

Summer Session 2007
Tuition: Day, Evening and Internship $450
Undergraduate Online $518

Deposits

An applicant to the day division should send the director of Admissions a tuition deposit of $300 after receiving a letter of acceptance. This deposit includes an orientation fee of $100. The remaining $200 will be credited to the student’s account on the first tuition billing.

All resident students are required to maintain a $250 room security deposit on account. Additionally, continuing residential students are required to make a $150 room reservation deposit during the spring semester for the following fall semester. The room reservation deposit will be credited to the student’s account on the first tuition billing for the fall semester. This $150 room reservation deposit is forfeited if the student is not in university housing in the subsequent fall semester.

A deposit to a student’s Campus Card may be made for the purchase of books and supplies at the University Bookstore, as well as for use at the vending machines, photocopiers and any dining service location. Once deposited, funds cannot be withdrawn from the Campus Card until the end of the academic year. Unused funds are returned at that time.

Tuition Payment Policy

Day division students are invoiced in July and December for the next semester’s charges. Only accepted and completed financial aid awards, including Philadelphia University Scholarships, Federal PELL Grants, Federal Supplemental Educational Opportunity Grants (SEOG), Federal Perkins Loans, PHEAA Grants, Federal Plus Loans and/or Federal Stafford Loans are included on the student’s invoice. Late applications for financial aid, unless approved prior to the billing due date, are not credited to the student’s account or accepted as payment. Any balance due, resulting from unapproved financial aid, must be paid by the billing due date. Any subsequent approval, resulting in a balance due the student, will be refunded to the student after the drop/add period.

Checks should be made payable to Philadelphia University, Attn: Business Office, School House Lane and Henry Avenue, Philadelphia, PA 19144-5497, with the student’s identification number clearly indicated on the face of the check. If the University receives a total of three non-sufficient funds (NSF) checks, all future payments must be made by cash, certified check or money order. Students may also use WebAdvisor to pay their account balances online using MasterCard and Visa.
Philadelphia University offers a deferred payment plan through Tuition Management Services (TMS). Enrollment forms are mailed to the student’s billing address. For more information or to enroll, you may contact TMS directly at 888.356.0350 or online at www.afford.com. For further questions and information, contact the University’s Student Accounts Office by email at studentaccts@PhilaU.edu, or by phone at 215.951.5988.

Refund Policy

A student who wants to initiate leave of absence or withdrawal procedures must obtain the Notification of Student Leave of Absence/Withdrawal form from the Learning and Advising Center. A student is considered in attendance until this formal notification is completed and returned to the office of the university Registrar and the student has dropped their classes through WebAdvisor. Tuition charges for students who withdraw from the University will be refunded on the following basis:

**Undergraduate Day and Online:**
- Before classes start: 100%
- First week of class: 80%
- Second week of class: 60%
- Third week of class: 40%
- Beginning of fourth week of class: 0%

**Undergraduate Evening:**
- Prior to the first class meeting: 100%
- Prior to second class meeting: 80%
- Prior to third class meeting: 60%
- Prior to fourth class meeting: 40%
- After fourth class meeting: 0%

Online classes follow the undergraduate day refund policy regardless of log-in status. Summer classes follow the Continuing and Professional Studies refund policy. The University uses federal regulations to determine the refund of federal financial aid funds to the federal government. A copy of this federal refund calculation is available at the University’s Business Office.

Any student who withdraws or changes credit hours or room and board status after the semester begins is obligated for a full semester’s room charge. Board will be charged to the official date of withdrawal, plus an additional charge of 25 percent of the unused portion.

The effective date for calculating refunds will be the effective date indicated on the Notification of Student Leave of Absence/Withdrawal form. Failure to complete this withdrawal form results in an unofficial withdrawal. Refunds, transcripts and recommendations will be withheld by the University until this official form is received. It is also the student’s responsibility to drop their classes through WebAdvisor when they complete this form. Students dismissed from the University or from the residence halls will receive the following refunds:
1. Tuition prorated from date of dismissal;
2. Room and board prorated from date of dismissal, less 25 percent of the unused portion.

Refunds for medical reasons will be reviewed on an individual basis. If approved, these refunds will be prorated from the date of the medical condition.

All refunds will be paid within 30 days of graduation or withdrawal/dismissal. Refunds must be requested in writing.

**Absence and Sickness**

Students who are absent from the University due to illness or injury, or any other reason, and who retain their place in class, are subject to full tuition, room and board charges during their absence.

**Transcripts**

Transcripts are not furnished to any student whose account is not paid in full. Transcripts may only be obtained through the Registrar’s Office.

**Fees**

A one-time, nonrefundable application fee of $35 must accompany the application for admission. This fee covers the cost of processing the prospective student’s application and is not credited to the student’s bill.

A $60 graduation fee is charged to all December, May and August graduating seniors.

A $35/semester Health Center fee is charged to all full-time day division students, all international students, full-time evening and graduate students who use the health center and any student who has purchased insurance through the University. A $55/semester international student fee is charged to all international students.

A $25 returned check fee is charged for any check that is returned for non-sufficient funds (NSF).

A $50 annual parking registration fee is charged to all eligible full-time day division students. A $15 annual parking registration fee is charged to all eligible part-time day division students.

The following fees will be deducted from the $250 room deposit of any resident student who cancels their contract by the date indicated below:

**Returning Students**
- Prior to May 1, $100 of the room deposit is forfeited.
- After May 1, the entire room deposit is forfeited.

**New Students**
- Prior to May 1, the entire room deposit will be returned.
- After May 1, the entire room deposit is forfeited.

**Services**

*Included in the full-time undergraduate day comprehensive fee is use of the Paul J. Gutman Library, Kanbar Campus Center, Learning and Advising Center, Athletic and Recreational Center and athletic fields; admission to all on-campus athletic events and cultural programs; access to personal counseling; and subscriptions to student publications.*

The University’s **Student Handbook** is available at www.PhilaU.edu/studenthandbook

**Campus Card**

The University offers a Campus Card program allowing students to buy meals, make photocopies, purchase supplies and books at the University Bookstore, and use the campus-wide vending machines and dining facilities. It also
serves as a University photo I.D., library card and campus activity card. Depositing funds on the Campus Card can be done in person at the cashier window in the Business Office, by mail, by calling the Student Accounts Office with accepted credit card information or online through WebAdvisor. When making a payment, a student must indicate the amount of the Campus Card payment along with his/her account number. A minimum of $20 can be placed on the Campus Card and will be available in the account the next business day after receipt. Any account balance remaining at the end of the academic year will be credited to the student’s account and refunded. A $25 charge is assessed for lost Campus Cards.

Check Cashing

Any student with a valid Campus Card may cash personal checks up to $100 per day at the Business Office cashier’s window during posted hours. A $25 returned check fee will be charged to students who cash checks that are later returned to the University for non-sufficient funds. If a third check is returned, check-cashing privileges are revoked.

Insurance

To obtain a health insurance brochure contact the Student Accounts Office 215.951.2633/2944 studentacts@PhilaU.edu.

Every full-time undergraduate student is required to be covered by a medical insurance policy either through his or her family or by insurance offered through the University. Full-time undergraduate students can obtain health insurance through the University by filling out an application. The policy only covers the student. Spouses and children are excluded from the policy. The charge will be added to your bill unless proof of insurance is provided to the Health Center before the specified date.

All international students are required to present proof of health insurance at the beginning of each semester. The director of Health Services will determine if the student’s insurance is adequate for coverage in the United States. The charge will be added to your bill unless proof of insurance is provided to the Health Center before the specified date.

Financial Aid


At Philadelphia University we believe that no student should be denied the opportunity for post-secondary education solely because of lack of adequate financial resources. In keeping with this philosophy, the Financial Aid Office provides information to students about financial planning and distributes financial aid resources to qualified students. The amount of financial aid available to any student is based on academic performance, need and the availability of funds. A financial aid consumer booklet is available on request from the Financial Aid Office located in the White Corners building.

How to Apply

Submit the FAFSA at www.fafsa.ed.gov by April 15. Federal school code is 003354

To apply, students should submit a Free Application for Federal Student Aid (FAFSA) electronically at www.fafsa.ed.gov, by April 15. Philadelphia University’s federal school code is 003354. Applicants are considered for all types of aid for which they might qualify. Entering students must be accepted for admission before their requests for aid can be considered. Late applicants will be considered as long as funds continue to be available. All financial aid, with the exception of Federal Work Study, is credited to the student’s account at the beginning of each semester.

Aid awards are made for one academic year at a time. Students must submit new financial aid applications each year by April 15 to qualify for financial aid assistance. Renewal awards are based on academic performance and continuing financial need. Aid may be withdrawn if a student fails to make satisfactory academic progress, fails to report financial aid from sources outside the University, owes a refund on a federal or state grant, or is in default on a student loan.

Types of Aid Available

Federal Pell Grant: A Federal Pell Grant is a grant administered by the U.S. Department of Education. Grants may range up to $4,310 per year for undergraduate students with financial need.

Federal Supplemental Educational Opportunity Grant (SEOG): Federal SEOG is a grant program administered by the University. Awards are based on need and other grant eligibility.
Academic Competitiveness (ACG) Grants: A federal grant, established on February 8, 2006, for Pell-eligible students who meet the following requirements:

- Must be a U.S. citizen.
- Must be enrolled full time.
- Must be in the first or second year of a two- or four-year degree program.
- First-year students must have completed high school on or after January 1, 2006.
- Second-year students must have completed high school on or after January 1, 2005.
- Must have completed a rigorous high school program of study as designated by their state.
- For a second-year student, you must have a grade point average from the first year of at least a 3.0.


National Science and Mathematics Access to Retain Talent (SMART) Grants: A federal grant, established on February 8, 2006, for Pell-eligible students who meet the following requirements:

- Must be a U.S. citizen.
- Must be enrolled in a four-year degree program.
- Must be enrolled full time.
- Must be enrolled in the third or fourth academic year of a four-year degree program.
- Must be pursuing a major in mathematics, science (including physical, life and computer science), technology, engineering or a critical foreign language.
- Must have a grade point average (GPA) of at least a 3.0.


Federal Perkins Loan: The Federal Perkins Loan program provides students with long-term, low-interest loans for educational expenses. The amount that can be made available to an applicant is based on the student's computed financial need and available funding.

Students are eligible to borrow up to $4,000 during one academic year, but no more than $20,000 during the period he/she is a full-time student. No interest is charged while at least half-time status is maintained.

First-time Perkins Loan recipients must complete an entrance interview at www.aessuccess.org.

Repayment of the loan with interest at five percent per annum on the unpaid balance begins either six or nine months after the student graduates or terminates student status or becomes less than a half-time student. Repayment must be completed within 10 years after the interest begins to accrue.

Federal Work-Study Program: The Federal Work-Study Program is designed to stimulate and promote the part-time employment of college students who have demonstrated financial need and who require the wages from the employment to pursue their studies. Students in the Federal Work-Study Program are employed by the University. Students are paid biweekly for the hours worked during the preceding pay period. Federal Work-Study is not deducted from the student's tuition invoice. Employment under the Federal Work-Study Program is awarded as part of the financial aid package.

The Financial Aid Office assists in matching students with a job based on completion of a job application form sent with award letters.

Federal Stafford Loan: Loans are available to students enrolled for at least six credit hours per semester. Students may borrow up to $3,500 per academic year for the freshman year, $4,500 for the sophomore year and $5,500 per academic year for the junior and senior years. The total amount outstanding that students may borrow for undergraduate study is $23,000.

The annual interest is a fixed rate at 6.8 percent. The government will pay this interest until six months after a student has terminated his/her studies, or dropped below half-time status, at which time the student must begin repayment of the principal and interest.

There may be a maximum three percent loan-origination fee deducted by the bank from the face value of the loan. In addition, lenders may deduct an insurance fee of up to one percent.

Under current regulations, all applicants must pass a needs test to qualify for this loan. A FAFSA must be filed prior to certification of a loan application by the University. The student must maintain satisfactory progress to renew the loan.

An application for a Stafford Loan can be completed at www.aessuccess.org. If a paper application is preferred, please contact the Financial Aid Office and we will send you one. Sample repayment plans for Federal Stafford Loans are available at the Financial Aid Office.
**Entrance and Exit Interviews:** Federal law requires that every student receiving a Federal Stafford Loan through Philadelphia University must complete both an entrance and exit interview. These sessions are completed online at www.aessuccess.org.

**Unsubsidized Federal Stafford Loan:** The Unsubsidized Federal Stafford Loan provides students who do not qualify for all or part of the Federal Stafford Loan due to need restrictions the opportunity to obtain a low-interest loan. The annual limits a student can borrow are identical to the Federal Stafford Loan program. The distinguishing feature of the Unsubsidized Federal Stafford Loan is that the interest must be paid by the student on a quarterly basis while the student is enrolled. Principal payments start six months after the student leaves the University or drops below half-time status. Application procedures are identical to those for a Federal Stafford Loan.

**Federal Plus Loans:** Parents of dependent undergraduates may borrow up to the student’s cost of attendance minus any estimated financial aid. The annual interest rate is a fixed rate at 8.5 percent. Repayment of principal and interest begins 60 days after the loan is disbursed. Some lenders will allow you to defer the payment of the PLUS principal. For more information, contact the Financial Aid Office or your lender.

**Philadelphia University Grants:** Philadelphia University Grants are offered to full-time undergraduates who have established financial need. The selection is made by the Financial Aid Office.

**Faculty Scholarships and Grants:** Scholarships and grants are awarded to students based on academic performance at the time they enter the University. These awards are renewable each year of full-time enrollment as long as minimum grade-point average requirements are met.

**Pennsylvania Higher Education Assistance Agency (PHEAA):** PHEAA is a state grant program for undergraduate Pennsylvania residents who will be enrolled full time (12 or more credit hours per semester).

All Pennsylvania residents applying for financial assistance from Philadelphia University are required to apply for a PHEAA grant.

**Other State Grant Programs:** Delaware, Connecticut, Massachusetts, Ohio, Rhode Island, Vermont and West Virginia, along with some other states, offer state grant awards to students who are residents of these states. Students should contact the appropriate state grant agency for more information.

**Privately Sponsored Scholarships:** Most libraries have books and brochures that list hundreds of scholarships and loan programs. Many of these awards are given to students meeting special conditions such as membership in an ethnic group or religion, academic major, parental employment or labor union association and parent or student fraternal affiliation.

**Veterans and Veterans’ Dependent Benefits:** If the student is a veteran who served on continuous active duty for 181 days or more after January 31, 1955, he/she may be eligible for educational benefits under the Montgomery G.I. Bill or Veterans Educational Assistance Program (VEAP). In addition, a variety of loans, employment opportunities and other forms of financial assistance are available to veterans. Students who are dependents of a veteran who died or is permanently disabled as a result of service in the armed forces and students who are serving in the reserves may be eligible for educational benefits. The Financial Aid Office has further information.

**Tuition Exchange Program:** Philadelphia University is a member of the Tuition Exchange Program. If a parent is employed by a participating college or university, students may be eligible for consideration through the Tuition Exchange Program. Interested persons should contact their place of employment or the University Financial Aid Office for more information.

**Philadelphia Partnership Scholarships:** Five annual scholarships are given to graduates of Philadelphia’s comprehensive public high schools. Selection is made based on demonstrated academic excellence and motivation. Students may contact their high school guidance counselor or the Financial Aid Office for additional information.

**Datatel Scholars Foundation Scholarship:** For outstanding students currently attending an eligible Datatel client institution. The Datatel Scholars Foundation scholarship is open to full-time and part-time students (taking at least six credit hours), as well as undergraduate and graduate students. The deadline for applying is January 31.

**New Economy Technology Scholarship Program:** The State of Pennsylvania has established a scholarship for students majoring in science or technology. The students must be in their sophomore year of college, be a Pennsylvania resident and have a 3.0 cumulative grade point average at the time of application. Students must also promise to work in Pennsylvania upon graduation, in their chosen major, or the scholarship reverts to a loan. For more information about the scholarship, contact PHEAA at 1-800-692-7392.

**Pennsylvania Governor’s School of Excellence:** Participants in the Governor’s School of Excellence may be eligible for five scholarship awards through the University. Students must be in the top quintile of their high school class and have minimum SATs of 1000.

**Athletic Scholarships:** Athletic scholarships are available in men’s and women’s varsity sports. The number of scholarships, the requirements, academic standards and awards are controlled by Philadelphia University and by the NCAA regulations for men’s and women’s varsity sports. Contact the Department of Athletics at 215.951.2720 for more information.

**Hope Scholarship:** The Hope Scholarship is a tax credit available for the first two years of college. It is available to students or family who pay tuition and related expenses for at least half-time attendance in a degree-granting program. The maximum amount available is $1500 per student, but is restricted by income requirements. Contact a financial advisor to determine your eligibility. You can also contact the Internal Revenue Service for more information at www.irs.gov.
Lifetime Learning Credit: The Lifetime Learning Credit provides a tax credit to students and/or parents of up to 20 percent of the first $5,000 of total annual educational expenses. Income restrictions also apply to the Lifetime Learning Credit. Consult a financial advisor to determine your eligibility. You can also contact the Internal Revenue Service for more information at www.irs.gov.

Endowed and Gift Scholarships: Each year, the University receives funds for a limited number of scholarships for eligible students. Although donors may place some restrictions on these funds, academic achievement and need are the primary factors to be considered in determining scholarship eligibility. However, a limited number of scholarships are based solely on academic excellence.

Scholarships include:

MARIANNE ABLE SCHOLARSHIP: Established in memory of the director of Career Services to help a needy junior or senior dedicated to completing his/her education.

JOEL M. ALPERIN SCHOLARSHIP: For Fashion Industry Management majors who need financial assistance.

ALUMNI SCHOLARSHIP: For deserving students in any curriculum.

AMERICAN APPAREL MANUFACTURERS ASSOCIATION: For freshmen students studying apparel.

PHYLLIS ARMON MEMORIAL SCHOLARSHIP: For a Textile Design major in need of financial assistance.

THE ASSOCIATION FOR CONTRACT TEXTILES SCHOLARSHIP: For a junior or senior Textile Design major with need and a 3.0 G.P.A.

THE DOROTHY BECHTEL SCHOLARSHIP AWARD FOR DESIGN EXCELLENCE: For deserving students pursuing a degree in either Fashion Design or Interior Design who have completed sixty (60) credits toward their degree.

BENJAMIN BELLEMERE SCHOLARSHIP: For a student who is a member of the Phi Psi fraternity and demonstrates financial need.

THE BETHLEHEM CONSTRUCTION CORP./WOLANIN COMPANIES LTD./WOLANIN FAMILY/PRIVATESKY® AVIATION SCHOLARSHIP: This scholarship, established by Vincent M. Wolanin and Gregory M. Wolanin, is made in memory of their father, Vincent J. Wolanin, a Pennsylvania Law Enforcement Officer who died suddenly while they were young, and also in tribute to their mother, Julia Solecki Wolanin, who raised them both during difficult times. Vincent (1969) and Gregory (1974) both are graduates of Philadelphia University. This scholarship will be awarded to a student who demonstrates financial need, as determined by the University’s Financial Aid Office, and who also demonstrates excellence in athletics and/or in any curriculum.

RICHARD BLEILER MEMORIAL SCHOLARSHIP: Given to a deserving student.

BOBBIN PUBLICATIONS SCHOLARSHIP: To a student in Fashion Industry Management.

KENNETH H. BOYDELL SCHOLARSHIP: For a deserving textile student in need of financial assistance.

THE RICHARD H. BRAUTIGAM SCHOLARSHIP: For a deserving undergraduate who demonstrates a strong determination to succeed.

BENNET BREGER-SRS TEXTILES/YMA SCHOLARSHIP: Awarded to juniors or seniors, with at least a 3.0 G.P.A., financial need, majoring in Engineering Textile Design, Textile Engineering, or Textile Technology.

CAROLINA ALUMNI SCHOLARSHIP: For a deserving student beginning in the student’s sophomore year, who demonstrates financial need and academic excellence in their field of study. Preference will be given to any candidate with a home residence in North Carolina or South Carolina.

CHARMING SHOPPES, INC. SCHOLARSHIP: Award for Academic Excellence - For a senior with a 3.0 G.P.A., demonstrated financial need, majoring in Accounting, Apparel, Design, Finance, Marketing or Textiles.

LIZ CLAIBORNE SCHOLARSHIP: For a needy minority student.

BERT COHEN MEMORIAL SCHOLARSHIP: For a textile student who demonstrates financial need.

HARRY COLE MEMORIAL SCHOLARSHIP FUND: For a student enrolled in the Textile Engineering curriculum.

ED COMBS MEMORIAL SCHOLARSHIP: For qualified international students in pursuit of a degree in textiles, apparel or chemistry with a minimum 3.0 G.P.A. who demonstrates a serious commitment to their field of study. Preference is given to the employees of Levi Strauss & Company International Group and their children.

EDWARD M. COPELAND MEMORIAL SCHOLARSHIP: Awarded to a soccer player based on need; first priority is given to a Delaware Valley resident.

EMILY M. CRANE SCHOLARSHIP: For deserving students in any curriculum.

CRANSTON FOUNDATION SCHOLARSHIP: For a deserving student in any curriculum.

CHARLES B. DEGENSTEIN SCHOLARSHIP: For residents of Snyder, Union and Northumberland counties in central Pennsylvania with financial need.

DINING SERVICES SCHOLARSHIP: For a student who has a 3.0 grade point average and has been employed by Dining Services for at least two semesters and plans to work there in the upcoming academic year.

WILLIAM N. DONIGER SCHOLARSHIP: For a deserving student in any curriculum.

DOWNS SCHOLARSHIP: Awarded to a freshman student from the Philadelphia area who graduated in the top 20 percent of his/her high school class and whose SAT scores placed the student in the top 25 percent of those taking the test. The student must also take some textile courses.
**ECHO DESIGN GROUP AWARD FOR ACADEMIC EXCELLENCE:** For a student with 80 or more credits studying Fashion Design or Textile Design.

**PHILLIP ELKIN MEMORIAL SCHOLARSHIP FUND:** For a deserving Business student.

**FASHION DESIGN FOR PARKINSON’S SCHOLARSHIP:** For an eligible Fashion Design student.

**FASHION INDUSTRY ASSOCIATION SCHOLARSHIP:** For a student majoring in Fashion.

**IRVING FISHON MEMORIAL FOUNDATION SCHOLARSHIP:** Given to worthy Fashion Industry Management students.

**FRED FORTRESS TEXTILE/APPAREL SCHOLARSHIP:** A merit-based scholarship awarded to needy students in the areas of Fashion Industry Management and Textile Engineering.

**E.W. and A.W. FRANCE SCHOLARSHIP:** For a deserving textile student.

**PEARL AND MURRAY FRUMKIN SCHOLARSHIP:** Established by the Textile Veterans Association; to a sophomore who demonstrates financial need and outstanding scholarship.

**JAMES P. AND ANNE M. GALLAGHER FAMILY SCHOLARSHIP FUND:** To a deserving student from the Philadelphia area.

**GERBER FAMILY SCHOLARSHIP:** To assist needy students who are studying abroad.

**HAROLD C. GIFT SCHOLARSHIP:** For a graduating senior from the Reading Area Senior High School, Reading, Pa.

**THE CLIFFORD M. GILPIN AWARD FOR EXCELLENCE IN TEXTILE STUDIES:** For a student enrolled in Textile Engineering, Textile Technology or Textile Design. Special preference shall be given to candidates in the Textile Engineering Program. Additionally, the award recipient shall have a grade point average of at least 3.5 and will be expected to demonstrate a strong commitment to their chosen career field, as well as involvement with an appropriate professional organization.

**DR. NANCY S. GOLDSMITH MEMORIAL SCHOLARSHIP:** For registered nurses enrolled in the Health Services Management program who have at least a 3.0 G.P.A. and a commitment to a career in the allied health services.

**RICHARD GOLSTEIN MEMORIAL SCHOLARSHIP FUND:** For students with financial need, starting in their freshman year through graduation, maintaining a 3.0 grade point average in textile-related field.

**THE DR. HERMAN GOLDSMINE AWARD:** Will be awarded annually to the architecture student who has presented the best Thesis. Candidates for the award will be those students who are in their final semester (spring semester of the fifth year of study).

**PEGGY GOUTMANN SCHOLARSHIP:** For junior, senior or master’s level students majoring in textiles.

**JULIA M. GRANBY SCHOLARSHIP:** For students studying either Textile Design or Fashion Design.

**BILLY HARRIS SCHOLARSHIP:** Named in memory of Billy Harris ’74, the scholarship is given to students with financial need who demonstrate academic achievement, leadership skills and athletic ability.

**BUCKY AND LORRAINE HARRIS SCHOLARSHIP:** The Bucky and Lorraine Harris Scholarship has been established as an endowed scholarship under the guidance of the founding committee members and the University Development Office.

Selected students will have attained at least a sophomore status at the University; be involved with the Department of Athletics through recreation, office assistance or work study, but NOT be a member of an intercollegiate program; and will be used to assist in the management of the campus Fitness Center, along with assisting the facility director in daily building operations.

**IRENE HERVEY SCHOLARSHIP:** For a textile major who demonstrates financial need.

**H. NEWLIN HILL MEMORIAL SCHOLARSHIP:** For students enrolled in a textile curriculum who demonstrate financial need. First consideration given to dependent's of AstenJohnson community employees.

**HOME FURNISHINGS ASSOCIATION OF THE DELAWARE VALLEY SCHOLARSHIPS:** To students majoring in Interior Design who demonstrate need.

**MICHELE IAMPIERI SCHOLARSHIP:** To an undergraduate student majoring in Fashion Design who demonstrates financial need. Preference will be given to a student residing in Howard County, Maryland.

**THE LARRY KARLIN SCHOLARSHIP:** For an economically disadvantaged male and female undergraduate student in their junior year, majoring in a textile-related field, without regard to grade point average and who has successfully completed the Global Leadership Program (GLP). In those years when students (male and/or female) cannot be identified as having successfully completed the Global Leadership Program, the GLP selection criteria can be temporarily suspended so that the funds can be allocated to a student or students who meet the other selection criteria.

**JOHN J. KAUFMANN MEMORIAL SCHOLARSHIP:** For a freshman enrolled in a textile major demonstrating academic excellence and financial need.

**KEYSTONE WEAVING MILLS SCHOLARSHIP:** For a deserving student enrolled in a textile, apparel or fashion design degree program who is at least a sophomore level and has need and a 3.0 GPA.

**BORIS KROLL SCHOLARSHIP:** For a student enrolled in Textile Design.

**ROGER LAVIALE SCHOLARSHIP:** To assist Philadelphia University students studying in Scotland at Heriot-Watt.

**LEVI STRAUSS/YMA SCHOLARSHIP:** For graduate-level textile and apparel students.

**MR. AND MRS. ROBERT LEVISON SCHOLARSHIP FUND:** For a deserving student enrolled in any degree-seeking curriculum.

**DR. GEORGE A. LINTON TRUST:** For a student enrolled in a Textile curriculum who demonstrates financial need.

**STEVEN GARY LITCHMAN MEMORIAL SCHOLARSHIP:** For a deserving student majoring in Textiles.

**THE CHRISTOPHER K. MCHUGH SCHOLARSHIP:** For a deserving undergraduate student in their junior year who has demonstrated financial need and a strong determination to succeed.
MEMORIAL SCHOLARSHIP: For a deserving student.
WILLIAM JOSEPH MILOWITZ SCHOLARSHIP: For deserving and underprivileged students who meet the academic requirements of the University.
KRISTINE A. MINNICK SCHOLARSHIP: To a deserving Physician’s Assistant student in the fifth year of school with a minimum 3.3 GPA and need. Applications are to be submitted to the Physician’s Assistant Program Director.
MISCELLANEOUS ENDOWED SCHOLARSHIP: For deserving students in any curriculum.
MICHAEL AND EVELYN MUTOLESE SCHOLARSHIP: For a student who is has financial need and is studying Textiles, Apparel or Fashion Merchandising.
THE RUTH AND MORRIS NISSMAN SCHOLARSHIP: For a deserving U.S. citizen, without regard to major, who demonstrates creativity (in any discipline) and empathy for others. Special consideration will be given to a student who has challenges to overcome and demonstrates the resolve to build a better world. The scholarship will be effective beginning in the student’s sophomore year and will continue into succeeding years if the recipient maintains a G.P.A. above 2.5 and demonstrates a commitment to creating understanding within the University and broader community.
OFFICE DEPOT SCHOLARSHIP: For deserving students in any curriculum.
PHILADELPHIA MENS AND BOYS APPAREL ASSOCIATION SCHOLARSHIP: For a student majoring in Fashion Industries Management or Apparel.
PHILADELPHIA TEXTILE ASSOCIATION SCHOLARSHIP: For a student who is majoring in one of the Textile fields. Preference is given to a Philadelphia-area resident.
PHILADELPHIA WOOL AND TEXTILE ASSOCIATION AWARD: For a deserving textile student with 60 or more credits, who demonstrates need and is actively involved with a campus-based or community-based service organization.
HARRY REIMER SCHOLARSHIP: For a well-deserving student in any curriculum.
THE ARTHUR B. ROBERTSHAW JR. SCHOLARSHIP: For junior- or senior-level students studying Textiles.
THE HAROLD RONSON SCHOLARSHIP FUND: For deserving students in any curriculum.
ARTHUR SALAMAN SCHOLARSHIP: For a deserving student athlete with need and a 3.0 G.P.A.
SCHLESINGER SCHOLARSHIP: For a student in any curriculum.
The SCHWAB FAMILY SCHOLARSHIP: Awarded to a junior Fashion Merchandising or Fashion Industry Management student with a 3.0 G.P.A.
JOHN SICHEL MEMORIAL SCHOLARSHIP: For a deserving student in any area of study.
ALLEN SIRKIN SCHOLARSHIP: Awarded to a needy student enrolled in Fashion Industry Management or Textiles.
RICHARD D. SMITH MEMORIAL SCHOLARSHIP: A scholarship restricted for a Textile major.
W.W. SMITH CHARITABLE TRUST: Given to academically qualified students from middle-income families, usually not eligible for federal and state grant assistance.
ARTHUR SOBEL SCHOLARSHIP: For deserving students enrolled in the Textile Design, Textile Engineering or Chemistry programs.
STEEL HEDDLE MANUFACTURING COMPANY SCHOLARSHIP: For academically qualified students who are majoring in Textile Engineering or Textile Management and Marketing, and are residents of VA, NC, SC, GA or AL.
The JOHN L. STEEN SCHOLARSHIP/FELLOWSHIP: For a U.S. citizen who is a full-time undergraduate student majoring in Textile Engineering, Industrial and Systems Engineering with a minor in Textile Engineering, Textile Technology, Textile Design, or Textile Management and Marketing (must be a concentration in either apparel, fabric development, quality assurance or textile production.) The Steen Scholarship for undergraduate students will be effective beginning in the student’s sophomore year and continue into succeeding years if the recipient maintains a grade point average above 3.0 (grading scale 4.0) and demonstrates a commitment to their chosen career field.
In the event that an undergraduate student is not available, the John L. Steen Graduate Fellowship must be awarded to a U.S. citizen who is a full-time graduate student majoring in Textile Engineering. The Steen Fellowship will continue into succeeding years if the recipient maintains a grade point average above 3.0 (grading scale 4.0)
The recipient, either an undergraduate or graduate student, is expected to demonstrate leadership skills and actively participate in community service.
In all cases, a resident of the State of New Jersey will be given preference.
BERNARD STEUR SCHOLARSHIP: For a Textile Engineering student with a strong interest in knitting.
BERTRAM A. STROOCK SCHOLARSHIP: For a deserving student.
MICHAEL T. SULLIVAN MEMORIAL SCHOLARSHIP: For deserving students in part-time evening programs; awarded annually.
TEXTILE DISTRIBUTORS ASSOCIATION SCHOLARSHIP: Given to students in need of financial assistance and enrolled in Textile curricula.
TEXTILE VETERANS ASSOCIATION SCHOLARSHIP: For a sophomore who demonstrates financial need and outstanding scholarship.
W. FRANK UHLIG SCHOLARSHIP: Preference is given to a student studying in textile and chemistry.
The UNDER FASHION CLUB, INC. SCHOLARSHIP AWARD: To a junior-level student to encourage talented Fashion Design and Textile Design students to pursue careers related to the intimate apparel segment of the industry.
UPS SCHOLARSHIP: Distributed by the Association of Independent Colleges and Universities of Pennsylvania to a deserving student selected by the University’s Financial Aid Office.
KELLY MARIE VOGDES SCHOLARSHIP: Established in memory of Kelly Marie Vogdes, who graduated from Philadelphia University in 2001, for students studying Fashion Merchandising and who are graduates of Camden Catholic High School.
LEONARD WALLACH SCHOLARSHIP: Funded by TSG, Inc. to honor and recognize Mr. Wallach for his many years of dedicated service to TSG and the textile industry. The scholarship recipient will have 60 or more credits, a minimum 3.0 grade point average, be enrolled in a textile program (first preference goes to a Textile Management and Marketing major), and be involved in community service and extracurricular activities.

FREDERICK WASSON SCHOLARSHIP: For students in any major.

JACQUES WEBER SCHOLARSHIP: For students from the Bloomsburg, Pa., area majoring in a textile-related field, demonstrating academic excellence and financial need.

MARTIN WEINER SCHOLARSHIP: Preference is given to Korean or other international students.

JOEL B. WEINSTOCK MEMORIAL SCHOLARSHIP: For a Textile Design or Interior Design major.

WHITESIDE GIFT SCHOLARSHIP: Based on a combination of financial need and merit, preference will be given to a student enrolled in the School of Business Administration.

J. BYRON WOLBACH SCHOLARSHIP: For a student majoring in Textile Engineering, Textile Technology or Textile Design. First consideration given to dependents of Lawrence Schiff Silk Mills employees.

WILLIAM WOOD FUND SCHOLARSHIP: For a student deemed deserving.

YOUNG MENSWEAR ASSOCIATION of the MEN'S APPAREL INDUSTRY ENDOWED SCHOLARSHIP: For a deserving student enrolled in a textile or apparel program.

YOUNG MENSWEAR ASSOCIATION OF THE MEN'S APPAREL INDUSTRY GIFT SCHOLARSHIP: Given to students who are pursuing educational courses that will benefit the men's apparel/textile industry and who have a demonstrated need for financial assistance.

Aid Policies

Academic Progress Requirements
The University is required to establish satisfactory academic progress standards for its federal financial-aid recipients in accordance with the U.S. Department of Education regulations. These standards ensure that only those recipients demonstrating satisfactory progress toward the completion of their educational programs continue to receive financial aid.

Whether a student is considered to be making satisfactory academic progress depends on successful semester completion of courses (credit hours), cumulative grade point average (GPA) and maximum time limits to complete their course of study. Students must meet all the requirements listed below:

- Semester Completion Requirement - A student must have earned hours equal to at least 75 percent of total hours attempted for the semester to remain in good standing. Students earning less than 75 percent of the hours attempted will be placed on financial-aid probation.

- Grade Point Average Requirements - Students must maintain a cumulative grade point average (GPA) of 2.0 or have academic standing consistent with the requirements for graduation, as determined by the University. Philadelphia University's academic standards are outlined in this undergraduate course catalog.

- Maximum Time Limit Requirements - A student's eligibility for financial aid will be terminated once they have attempted more than 150 percent of the normal credits (as defined in the undergraduate course catalog) required for your degree program. All attempted hours are counted, including transfer hours, whether or not financial aid was received or the course work was successfully completed.

- Evaluation of Academic Progress - A financial aid recipient's satisfactory academic progress is evaluated after each semester of the academic year. At that time, a student will either be in good standing, be placed on financial aid probation or denied financial assistance for future enrollment periods. The student must meet all three progress requirements (completion rate, GPA and be within the maximum time frame) to remain in good standing. Student will be notified by the Financial Aid Office, if s/he is placed on probation or denial status for financial aid.

- Probation status - Probation status will not prevent the student from receiving financial aid. The probationary semester is meant to inform the student of potential academic problems and provide time for corrective action. If a student does not meet the satisfactory academic progress standards after the probationary period, denial status could be imposed or continued probation approved. Denial status will prevent the student from receiving any Title IV, and institutional financial assistance for future enrollment until such time as the student meets all satisfactory academic progress standards.

- Appeal and Reinstatement - Students may appeal their denial status by submitting an Appeal Form to the Director of Financial Aid. Appeal forms are included in the letter informing students of their denial status and should be submitted to the Financial Aid Office.

Some circumstances such as medical problems, illness, death in the family, relocation, employment changes or personal problems can be considered for an appeal. Documentation verifying the situation may be requested.

Submission of the form is required within four weeks of receipt of the denial letter. The Director of Financial Aid will review the appeal and contact the student via letter as soon as a decision is reached.
Students can raise their GPA and/or satisfy credit deficiencies by taking additional course work at Philadelphia University without receiving financial aid. Students can eliminate credit deficiencies, but not GPA deficiencies, by successfully completing approved course work at another institution without receiving aid at that institution. Transfer credits used to satisfy credit deficiencies cannot be credits that were earned prior to the semester in which the student incurred the deficiencies. The student must submit a copy of the academic transcript to both the financial aid and registrar's office.

The policy does not preclude a student from enrolling in subsequent semesters. Students may have their financial aid reinstated by the Financial Aid Office once all satisfactory academic progress standards are met. It is the student's responsibility to inform the Financial Aid Office once they have fulfilled the necessary requirements.

**Grade level advancement policy for Stafford Loan eligibility**
- 1-29 Freshman level
- 30-59 Sophomore level
- 60-89 Junior level
- 90-up Senior level
- 120-up (for Architecture students only) 5th year

**Tuition Refund Policy**

- Effective Date of Withdrawal Refund Amount
  - Before Classes Start 100%
  - First Week of Classes 80%
  - Second Week 60%
  - Third Week 40%
  - Fourth Week none

Federal regulations mandate that students attending Philadelphia University who are federal financial aid recipients be processed for a refund if they withdraw before the 10th week of the semester.

**Financial Aid Refund Check Policy**

Financial aid will be applied to tuition first. Any remainder must be applied to all other University charges before a refund check is issued. Students who are credited with aid in excess of their tuition and other charges must contact the business office after the second week of classes for that term's refund check.

**Return of Title IV Funds**

The Office of Financial Aid is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out or take a leave of absence prior to completing 60 percent of a payment period or term. The federal Title IV financial-aid programs must be recalculated in these situations.

Recalculation is based on the percentage of earned aid using the following Federal Return of Title IV funds formula. The number of days completed up to the withdrawal date divided by the total days in the payment period or term equals the percent of the payment period or term completed. (Any break of five days or more is not counted as part of the term.) The percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid (100 percent minus the percentage of earned aid.)

If a student earned less aid than was disbursed, the institution would be required to return a portion of the funds and the student may be required to return a portion of the funds. Keep in mind that when Title IV funds are returned, the student borrower may owe a debit balance to the institution.

If a student earned more aid than was disbursed to him/her, the institution will offer the student a post-withdrawal disbursement via a letter, which, if accepted, must be paid within 120 days of the student’s withdrawal. The student must accept or decline the post withdrawal disbursement within the time frame indicated in the letter.

Refunds are allocated in the following order:
- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Federal Perkins Loans
- Federal Graduate PLUS Loans
- Federal Parent (PLUS) Loans
- Federal Pell Grants
- Federal Academic Competitiveness Grant (ACG)
- National Science and Mathematics Access to Retain Talent Grant (National SMART Grant)
- Federal Supplemental Opportunity Grant
Student Life

The Division of Student Life offers comprehensive programs and services that foster an educational environment conducive to the holistic development of students. By building bridges between the curricular and co-curricular experiences, Student Life educators provide opportunities for students to become successful, competent, lifelong learners. Information on specific programs and services follow.

Athletics

Department of Athletics 215.951.2720 www.PhilaU.edu/athletics

The University offers 15 intercollegiate sports competing at the NCAA Division II level: men’s and women’s basketball, cross country, rowing, soccer and tennis; men’s baseball and golf; and women’s field hockey, lacrosse, softball and volleyball. The University holds membership in the National Collegiate Athletic Association (NCAA), the East Coast Athletic Conference (ECAC) and the Central Atlantic Collegiate Conference (CACC). Athletic scholarships are available and interested students should contact the Department of Athletics at 215.951.2720 for more information.

Undergraduate students are required to take two semesters (.5 credits each semester) of physical education classes, which can be satisfied by two semesters of intercollegiate competition.

Recreation Program

Recreation Sports 215.951.2723

The Department of Athletics organizes and promotes structured and competitive recreation sports and activities that are open to full-time students, faculty and staff. The Recreation Program provides an opportunity for everyone to participate in enjoyable physical activity and to develop an appreciation for the benefits of physical exercise. Activities are offered in league/tournament format, fitness programs, instructional programming, informal recreation, club sports and special recreation events for student organizations.

Facilities

Philadelphia University hosts athletic events in the new Athletic and Recreation Center and at the Alumni and Ravenhill Fields. The campus also features tennis courts, a softball field, a state-of-the-art fitness center, racquetball court, aerobics studio and an elevated track. Check out Athletics at Philadelphia University by visiting www.philauathletics.com. Go Rams!

Career Services Center

Career Services 215.951.2930 careerservices@PhilaU.edu

The Career Services Center offers students pursuing undergraduate, graduate, or continuing studies, as well as graduates, many opportunities to develop the skills for a meaningful career. Career Services provides individual advising by qualified counselors; a comprehensive range of computerized career assessments, employer database and job listings; employer networking receptions, seminars and special events; and on-campus recruiting.

Starting freshman year, students can follow a four-year plan and track their career and professional development using the Professional Development Journal. Career Services partners with faculty from all schools to present meaningful instruction on various topics, including résumé writing, interview skills, job-search strategies and networking. Career Services also offers career assessments for students seeking assistance with deciding on a career, or identifying job functions within an industry that best match their abilities. Students may identify their personality type and learn how it influences their work style by taking the Myers-Briggs Type Indicator (MBTI). Students may conduct additional research related to their career interests in the Career Library located in Career Services, The Kanbar Campus Center, Suite 313. Also available is an online resource, Reference USA, to locate employers around the country and/or conduct company research. Career Services offers an online job listing and resume service called CareerLink. Undergraduate students, graduate students and alumni may post resumes and apply for positions through the system. Employer networking receptions, Design Expo, a professional-etiquette dinner, career panels, mock interviews, on-campus interviews and other activities allow students to interact personally with employers and alumni to learn more about career opportunities in a more personalized setting. The most important factor contributing to student success in entering the job market is student involvement in the career-development process. The Career Services Center enjoys a high rate of student participation in all of its programs, contributing to students securing meaningful career positions and acceptance into graduate programs.
Community Service Programs

The Office of Community Service Programs is located in The Kanbar Campus Center, Room 301. 215.951.2743.

The goal of the Office of Community Service Programs is to develop students into community-conscious leaders who have active, engaging relationships with the local neighbors and the City of Philadelphia. Participation in any aspect of the program provides opportunities for students to relate classroom theory to real-world applications, as well as practice skills that directly relate to their future careers.

There are several ways in which students can take advantage of these opportunities. Each year, first-year students participate in our Annual Community Service PLUNGE. This program sends hundreds of students into the local community during the New Student Orientation Program. In addition, students or members of clubs and organizations participate in ongoing projects throughout the year. Annual events include work with Special Olympics, Habitat for Humanity, AIDS Walk, the Red Cross and much more.

Commuter Services

Commuter Services is located in the Office of Residence Life in The Kanbar Campus Center.

Commuter Services provides information and resources that are helpful for students living off campus and/or commuting from home. The Commuter Advisor plans monthly socials throughout the academic year to ensure that commuter students feel fully connected to the University community. The Commuter Advisor meets with a group of interested students to help plan events and advocate for commuter student issues. In addition, the Office of Residence Life works with a company to provide students with an online searchable database of housing available in the area. This site also provides current students the ability to locate other students looking for off-campus roommates. In addition, there is an annual Off-Campus Housing Fair each spring that is attended by many local landlords.

Counseling Services

Personal Counseling Services 215.951.2868.

Counseling for personal concerns, including misuse or abuse of alcohol or other drugs, is available to all day division students at no charge. Counseling is provided on a short-term basis by licensed professionals who understand the special needs of college students. Referrals to area agencies and practitioners are made for those who need more specialized or long-term care. Students experiencing emotional crisis are seen as soon as possible on that same day; otherwise, students are encouraged to make appointments in advance. All information shared with counselors is held in strict confidence, as long as there is no clear and imminent danger to the student or others.

Dining Services

Dining Services 215.951.2924 diningservices@PhilaU.edu.

The Ravenhill Dining Hall provides students with a large variety of meal selections, including many healthy choices, with unlimited seconds for students dining in. It features creations from all over the world at Bravisimo, fresh dough pizzas from Pepperazzi’s, delicious fresh salads and mouth-watering sandwiches from the Deli, as well as fresh stock soups and favorite home cooked foods.

Ravenhill Dining Hall is open regular hours during the day Monday through Friday, serving breakfast from 7:15 to 10:15 a.m., lunch from 11 a.m. to 2 p.m., and dinner from 4:30 to 7 p.m. On the weekends, it is open for brunch from 10:30 a.m. to 2 p.m. and dinner from 4:30 to 7 p.m.

The Kanbar Campus Center houses two dining locations. The Common Thread, located on the lower level, offers fresh burgers and hand-cut french fries, Philadelphia cheese steaks and other favorites at the grill. The deli offers whole roasted turkey and roast beef, along with other deli favorites and sides. Homemade fresh stock soups, baked pastas and entrées cooked to order also are available. Ted’s, located on the main level, offers “on-the-go!” and convenience items in the store, as well as fresh dough pizzas, hot subs, Starbucks coffee, Hershey’s Ice Cream and fresh baked products. Ted’s is open continuously Monday through Friday from 7:30 a.m. to midnight, and noon to midnight on Saturdays and Sundays. Common Thread is open from 8 a.m. to 7 p.m. Monday through Thursday, and 8 a.m. to 2:30 p.m. on Friday.

The Tuttleman Cafe, located in The Tuttleman Center, offers coffee and light fare. It is open 7:45 a.m. to 6:30 p.m. Monday through Thursday, and 7:45 to 2:30 p.m. on Friday.

All students living on campus, with the exception of those residing in the townhouses or apartments, are required to purchase a meal plan. Commuting, townhouse and apartment students may purchase a meal plan or use the dining facilities on a cash basis.

Health Services

The Student Health Center is located in Scholler Hall, lower level. Call 215.951.2986.

Contact the Business Office at 215.951.2960 to purchase University health insurance.

The Student Health Center is open weekdays during the academic year to provide assessment and treatment of minor illnesses and injuries. All full-time undergraduate students pay an annual fee that entitles them to access Student Health Services as often as needed. Students may visit during Walk-In-Hours or call 215.951.2986 to schedule an appointment. Students may be responsible for lab fees, prescription costs, and costs for specialty exams, if needed. Student Health Services is staffed by a secretary and certified nurse practitioners who are available to assist in meeting students’ confidential health care needs. Confidentiality may be broken if the student is considered to be a danger to self or others. Students who require additional or alternative treatment may be referred to local providers at their own
expense. Within the Student Health Center is a waiting room stocked with health-related reference materials and pamphlets, as well as a self-care station stocked with common over-the-counter medications. Students may avail themselves of these supplies during office hours.

All full-time day undergraduate students are required to submit a completed health form that includes a medical history, recent physical exam and documentation of the required immunizations and testing. Forms are available in the Student Health Center and must be submitted prior to attending classes as a new or returning student. The University reserves the right to deny housing, to deny preventative-care services or to withhold registration for any student who does not meet the pre-matriculation requirements established by Student Health Services. All full-time students are required to be covered by a medical insurance policy. Full-time day undergraduate students and all international students are required to present proof of adequate insurance at the beginning of each academic year. In adherence to immigration laws, all international students must demonstrate minimal standards of adequate health insurance. Insurance will be considered adequate if the carrier is licensed to do business in the United States with a U.S.-based office and telephone number. This information must be provided to the Student Health Center by the second Friday in September (fall semester) or the first Friday in February (spring semester). If documentation of adequate health insurance is not provided, the Business Office reserves the right to charge the appropriate health and accident insurance fee to the student’s account. It is students’ responsibility to ensure that they are covered either through private insurance or through the University-sponsored health insurance plan. To purchase the University-sponsored plan, students may contact the Business Office at 215.951.2633. Any changes in insurance coverage should be reported to Student Health Services.

International Student Programs

Office of International Student Programs 215.951.2660
www.PhilaU.edu/international.

The University has a long history of educating students from all over the world. At present, about four percent of the University’s students are international. The director of International Student Programs offers assistance to these students in many areas, such as providing orientation assistance, counseling, programming and serving as an administrative liaison with governmental and immigration agencies; and as the advisor of the ISA, the international student organization.

More information and resources are available in the director’s office — where detailed University information, as well as business and social information for new international students, can be found.

Upon arrival, all international students, including transfer students, must report to the director’s office, located in the Student Center.

Office of the Dean of Students

The Office of the Dean of Students is located in the Kanbar Campus Center 215.951.2740.

The Office of the Dean of Students oversees all departments in the Division of Student Life and serves as an advocate for students in the development of University policy. The Office is also responsible for administering the University code of conduct (judicial policies).

Residence Life

The Office of Residence Life is located in The Kanbar Campus Center, 317. 215.951.2741

The University provides on-campus housing for approximately 1,300 undergraduate students in traditional and apartment-style residence halls. First-year students are housed primarily on the Ravenhill Campus, while returning and upper-class students are housed on the Main Campus. Housing on the Ravenhill Campus consists of four residence halls — Fortress Hall, Mott Hall, Partridge Hall and Ronson Hall. Students reside in rooms accommodating one to four students with community bathrooms in each building.
Housing on the Main Campus consists of three apartment complexes: Independence Plaza, the Townhouses and Alden Park, and one residence hall, Scholler Hall. The apartment-style units range from one to five bedrooms, accommodating two to five people. Each air-conditioned unit contains a full kitchen, living room and bathroom. Scholler Hall is a traditional residence hall with single- and double-occupancy rooms.

Each resident is provided with an extra-long bed, desk, desk chair and dresser/wardrobe unit. In addition, one data port and voicemail box is provided for each resident except in Alden Park where no local telephone service is provided. At least one cable connection with basic service is provided for each room or apartment. Apartment-style units are additionally furnished with living room and kitchen furniture as space permits.

Recognizing that students spend a significant amount of their time outside of the classroom setting, the Office of Residence Life strives to create a group-living environment in which each student is afforded an opportunity to develop as an individual in an atmosphere that encourages emotional and intellectual growth.

The environment within a student’s residence area significantly influences his/her success and personal satisfaction while at the University. Each resident contributes to making residence-area living a positive experience. A feeling of community is achieved through mutual consideration, cooperation and responsible behavior. Community living places responsibility on the individual for self discipline and an awareness of the rights and needs of other individuals within the community.

Each residence area is supervised by a Residence Life staff member. Residence Coordinators (RCs) and Resident Assistants (RAs) work with students to develop a sense of community in their residence area and create an atmosphere conducive to mutual respect and consideration. Residence Life staff members are also instrumental in assisting students to develop positive attitudes and behavior to deal responsibly with the establishment of an independent lifestyle and the social freedoms of adult life.

**Student Activities**

For information on the Campus Activities Board, contact the Office of Student Activities in the Student Center, Room 201, 215.951.2744.

The Student Activities Program at the University serves a vital role in enriching the quality of life on campus. The program offers the opportunity for the development of life-long skills, and serves as the conduit for diverse ideas, cultures, lifestyles and experiences. The various components of the student activities area are housed in the Student Center.

The Student Government Association (SGA) is an independent, self-governing student group that includes President’s Council, a body that consists of representatives from all recognized student clubs and organizations.

In addition to the basic responsibility of protecting students’ rights, the SGA recommends students to University-wide committees, addresses student grievances and sponsors campus-wide events.

The Campus Activities Board is the major social programming organization on campus. Its responsibility is to provide a wide variety of special, scholastic, cultural, educational and entertainment-based programs open to the entire campus community.

In addition to the SGA and the Campus Activities Board, there are approximately 30 social, cultural, professional, religious and special interest clubs and organizations at the University including The Text, the student newspaper, and Analysis, the yearbook. Philadelphia University has one national social fraternity and one national social sorority, along with the professional fraternities Phi Psi (Textile) and Delta Sigma Pi (Business).

**Student Development Programs**

Questions? Call the Office of Student Development Programs 215.951.2634

**Spiritual Development** 215.951.6804

The Office of Student Development Programs is responsible for the coordination of activities for new day division students entering the University, including the S.T.A.R.T. (Student Transition, Advising, Registration & Testing) Program, which is offered during the summer with Family Orientation and once during January; as well as the New Student Orientation program prior to the beginning of the fall
semester. This program seeks to assist students in becoming acclimated to the academic culture and campus life components of the University.

The office educates students about positive and informed life choices and personal growth. The office assists students in their adjustment to the University and to later life by providing out-of-class learning opportunities designed to increase their personal, intellectual, spiritual and cultural development. Focusing on the various areas of student development, the office offers a comprehensive array of programs that address issues of alcohol and substance abuse, sexual behavior and orientation, AIDS and cultural diversity. The office also coordinates the Emerging Leaders Program, which includes a leadership-development series for students who plan to serve in a variety of leadership positions on campus.

Philadelphia University’s program for first-time college students – The First Year Experience (FYE) – assists first-year students in successfully integrating their curricular and co-curricular experience, while becoming actively engaged in the University community and the city of Philadelphia. Workshops, city excursions and social activities offered through FYE are open to all first-year students.

Through the Office of Student Development Programs, the University offers the Spiritual Development Program. The part-time coordinator offers various programs and activities for students and student organizations interested in spiritual development. Additionally, the coordinator can assist in referring students to area houses of worship, offer comfort in time of trouble, and provide campus education in religious diversity.

Development and Alumni Relations

For more information, call the Office of Development and Alumni Relations at 215.951.2850.

Development

Through a variety of initiatives, the Office of Development seeks financial support for the University’s mission to “provide students with a dynamic and professionally focused education.”

The Development staff seeks private and public financial support from individuals (alumni, parents and friends), corporations, foundations and government agencies. The areas of support include academic programs, endowment, capital and building projects, research, professorships, athletics and the Annual Fund. The Annual Fund helps to defray operating expenses in areas such as University-based financial aid and scholarships, technology upgrades and library resources. Along with these areas of support, the Development office also forges mutually beneficial relationships with corporations, foundations and the Greater Philadelphia community.

The generosity of our donors and volunteers is a highly valued component of the University’s capability to continually enhance the student experience.

Alumni Relations

The Office of Alumni Relations encourages students to become acquainted with its services and staff. The Alumni Relations Office seeks to unite alumni, promote and foster friendships, and encourage an active relationship between alumni and the University.

The Alumni Update publication notifies alumni of University activities and provides news about classmates and events. The University and alumni are also involved in career networking, career mentoring and student recruitment activities, including Twelve Strangers for Dinner – a student/alumni mentorship program.

The Student Alumni Association (SAA) ensures that students become involved in alumni activities. SAA works to enhance student and alumni relationships while providing leadership opportunities, pride, loyalty and a sense of support for the University. By becoming involved in SAA, students participate in many University-sponsored events while meeting new friends and making alumni contacts.

Learning Resources

Information Technology

For computer support visit the Technology Help Desk, Second floor, Search Hall or call 215.951.40IT (x4648) or email HelpDesk@PhilaU.edu.

Technology is at the heart of much of what happens at Philadelphia University. In fact, a sophisticated technological infrastructure supports the entire University community. The network provides high-speed (100 megabit and gigabit) service throughout campus from residence halls and administrative offices to classrooms and labs.

The campus has nearly 1,150 University-owned desktop computers connected to the network. Each student receives an email account that includes 100 MB of mail space. A number of academic programs (Graphic Design, Digital Design, Industrial Design, Architecture, and Instructional Design and Technology) are assigned enhanced network storage space. All students are provided with 300 MB of network drive space, with additional allocation available for students working on data or image-intensive projects. Students are also provided with space for hosting their own University-related Web site.

The Paul J. Gutman Library, The Kanbar Campus Center and The Tuttleman Center provide wireless connectivity for students and faculty who wish to work wirelessly. The computer ownership rate in the Residence Halls is more than 90 percent. Our network and email systems support both smart phones and PDAs using the Windows Mobile Five standard.

Philadelphia University is a technology-rich environment. Both the departmental and general-purpose computing labs provide an impressive array of software applications including AutoCAD, Cinema 4D, and Macromedia tools such as Dreamweaver, Flash and Director. Industrial and Digital Design students are required to learn applications such as Final Cut Suite, Maya, Rhino, Swift 3D, and Adobe titles such
as Creative Suite, Photoshop, Illustrator, InDesign, Acrobat and After Effects. Desktop computing equipment in these specialized programs is on an aggressive migration cycle that provides upgrades and new equipment every 24 months.

**WebAdvisor**

WebAdvisor is a web-based information management tool that allows Philadelphia University students, staff and faculty to access numerous online resources. With WebAdvisor, prospective students can view application status and find financial-aid information. Enrolled students can review course schedules, check account status and register for classes. Faculty can monitor rosters, post grades and review advisee information. Staff can even manage their budgets.

The University supports the Blackboard course-management system. This tool provides faculty and students with online and supplemental course materials through the Web. The integration of technology into curriculum is a strategic campus goal.

The Office of Information Technology (OIT) provides a broad range of support for faculty and students including a Residential Technology Consulting Program (ResCons) staffed by students living in the residence halls, a comprehensive Technology Help Desk operating nearly 100 hours per week, a team of analysts devoted to desktop and computing lab support, and resources delivered from nearly 30 enterprise servers operating around the clock.

**Paul J. Gutman Library**


The 54,000-square-foot Paul J. Gutman Library blends a traditional book and journal collection with a growing electronic environment - it is the University’s Gateway to Information. Through the use of the World Wide Web the library delivers to the University community, at any location, a wide range of information resources. This access includes our online book catalog and numerous electronic databases; including, Avery Architecture Index, Art Index, Ebsco, LexisNexis and ProQuest. These networked electronic databases and electronic book and journal collections offer students convenient research and study access to a continually expanding world of knowledge and information.

The availability of electronic resources supplements a book collection that contains over 120,000 volumes with special emphasis in the areas of art and architecture, design, textiles, sciences and business. The Gutman Library Special Collections Department maintains one of the largest collections in the United States devoted to the history of the textile industry. A contemporary reading collection of best sellers and popular materials is also available. Other print publications include 1,000 journal titles, microform subscriptions, trade publications and newspapers. Additional material can also be acquired through the Library’s membership in an interlibrary loan network linking more than 14,000 libraries around the world, or through EZBorrow, a self-service loan system for books from over 50 of Pennsylvania’s largest academic libraries.

These resources are combined in an award-winning building with a comfortable, inviting work environment. Students can find privacy at individual study carrels, share one of the seven study rooms or just relax in one of student lounge areas. More than 400 seats are available for student study. The upper level features collaborative computer stations for group work. The library’s wireless access allows students to use personal or library loaned laptops at any location in the building. Students may also choose to use any of the library’s fifty networked desktop computers.

The Paul J Gutman Library is more than an information collection. Librarians work together with faculty to educate students about the electronic reference environment. Classroom presentations and hands-on instruction sessions, aimed at creating an information-literate student body, are offered throughout the academic calendar year.

**The Design Center at Philadelphia University**

The [Design Center](http://www.PhilaU.edu/designcenter) is open to the public Monday through Friday, 10 a.m. to 4 p.m., and by appointment at 215.951.2860. thedesigncenter@PhilaU.edu

The Design Center at Philadelphia University is one of the rare institutions in America solely devoted to exploring the design arts. Its purpose is to help people understand how and why design shapes everyday life. The Design Center recognizes that design is as simple as a paper clip, as political as a voting ballot and as complex as a city plan. Through exhibitions, K-12 enrichment programs, college-level curriculum, lectures and special events, The Design Center reflects and supplements Philadelphia University’s design curriculum that includes architecture, landscape architecture, interior design, industrial design, graphic design, digital design, textile design, fashion, interactive media and product design.

In addition to mounting exhibitions and creating unique public initiatives, The Design Center houses the University’s extensive historical and contemporary textile collection. The collection – some 200,000 items strong – is a nationally recognized resource for the study of American, European and non-Western textiles from the first century AD to the present. It is also the only comprehensive repository of 19th- and 20th-century industrial fabric samples in the United States, documenting a broad range of styles and techniques, and serving as a critical resource for research on American commercial and industrial design.
Academic Programs

Overview

Programs at Philadelphia University are professionally oriented and feature a unique blend of liberal studies and career preparation. The curricula seek: a) to enhance students’ ability b) to ensure students’ understanding of the ideas, traditions and values of their own and other cultures; and c) to prepare students to apply the concepts and techniques of both general and specialized learning to a full personal and professional life.

The academic programs offered at Philadelphia University are administered by the School of Architecture, the School of Business Administration, the School of Design and Media, the School of Engineering and Textiles, the School of Liberal Arts, the School of Science and Health, the Department of Physical Education and the Office of Continuing and Professional Studies. The academic programs and courses of study for each school or department are outlined in the next section.

Assessing Learning Outcomes

Philadelphia University recognizes that assessing student learning is an important part of measuring institutional effectiveness and should be employed throughout the curriculum. Assessment extends beyond the evaluation of individual student work routinely conducted in courses. It seeks to explore teaching-learning connections and to apply what is learned from this exploration to the improvement of University programs through the efforts of its faculty.

All curricula at Philadelphia University, a career-oriented university, combine theory and application, and performance and integration. This mixture guides the faculty as they develop specific learning outcomes for their programs. Assessment helps in understanding how well students are achieving these outcomes and reflects the belief in the importance of learning by doing. Assessment also helps ensure that the University’s programs fulfill the University’s mission to provide students with a distinct blend of liberal and professional education.

Bachelor’s Degree Components

College Studies

The general education program at Philadelphia University is designed specifically for professionally oriented students. Technological change, economic shifts and increasing interdependence demand a strong grounding in liberal education, as well as professional and technical expertise. All students in the University take the common liberal-education sequence called the College Studies Program. Study in the liberal arts and sciences develops the skills to be an integrative thinker who can see connections in a wide range of knowledge and across disciplinary boundaries. Through exposure to complex, real-world issues, through studies in history, humanities and the social sciences, mathematics and the natural and physical sciences, students become graduates who are well-read, well-spoken, worldly, flexible, and adaptable – individuals who never stop learning and making connections in everything they do.

The School of Liberal Arts and the School of Science and Health have joint responsibility for courses in this program, promoting the best of a strong liberal arts and sciences tradition while working alongside the professionally oriented curriculum. Students progress through a carefully constructed four-year sequence, making connections between disciplines and viewing their own fields of choice through larger social, economic, political and cultural lenses. College Studies forms the backbone of every student’s major, bringing classmates together to share a common educational experience and to learn from each other’s diverse perspectives. All students at the University take 46–51 credits, or approximately 40 percent of their coursework, in College Studies.

General education at the University is broader than just College Studies, and general education objectives are built into the course of study in each major. College Studies and our wider general education focus allow our students to become lifelong learners, able to adapt to changing career demands.

Professional Studies

The professional studies component of the degree is designed to provide students with the knowledge and skills required for successful entry into a career. Courses are sequenced over four or five years to allow students to build skills and an understanding of their professional discipline throughout their educational experience.

Minor Concentration

Minor concentrations are a series of courses that provides the opportunity to study in an area which complements, enhances or contrasts with the student’s professional studies.

Designated Electives

Designated electives allow students to select from a pre-approved set of courses that allows both freedom of choice with some degree of programmatic guidance.

Free Electives

Free electives allow students to tailor their degree program to meet their personal and educational goals. Students who participate in the Internship Programs will use these credits to partially satisfy the free elective requirement.

Physical Education

A two-semester sequence of physical education is required of all day division students. The Physical Education department offers a variety of activities, including traditional instruction, as well as the opportunity to participate in the University’s extensive intramural program, making it possible for students to fulfill this requirement in a constructive and enjoyable manner. Physical education is not required in evening degree programs.
Internship Programs
The Internship Programs assist students in preparing for their careers through facilitation of a work experience directly related to the major or career, and by augmenting that experience through elective academic courses designed to include professional goal-setting activities and reflective writing assignments. Students receive the support and guidance of the program staff and a faculty member from the student’s major throughout the job search, as well as during the semester of program participation. At the conclusion of the internship semester, all students are evaluated both by their employer and faculty member, and receive a grade derived from successful work performance as determined by the employer and the quality of academic assignments submitted to their faculty.

Students are strongly encouraged to apply early for the best success in finding an appropriate experience, but should note that program application does not guarantee employment. To prepare for the internship search process, students should develop a résumé as well as take advantage of the numerous career development services and events offered by the university as part of the Career Services Center to aid in researching companies, careers and in successfully interviewing.

Basic requirements for participation in the Internship Programs:
• Full-time status
• Completion of 60 credits by the start of the internship experience
• 2.5 cumulative GPA in the semester preceding the internship

Study Abroad Program
Studying abroad aids students in preparing for successful professional participation and competition in an increasingly interdependent world, and in performing with distinction in the international and multicultural contexts that are shaping professional life, while also experiencing a foreign culture firsthand. Largely a junior-year program, students may study abroad in University-sponsored short courses of just a few weeks, or spend an entire semester or academic year abroad.

To ensure a successful experience abroad, program applicants receive individualized attention and counseling when assessing their Study Abroad options. Academic and career goals are discussed with the student’s academic advisor and the Study Abroad staff, and an approved program of study is created. The Study Abroad Office then guides the student toward achieving her or his foreign study needs and goals, and oversees the transfer of academic credits.

In order to transfer credits earned while abroad, students must apply to, and be accepted by, the Philadelphia University Study Abroad Office before studying overseas. Deadlines apply. Students accepted into the Study Abroad Program remain enrolled at Philadelphia University and register for study at a college or university approved by Philadelphia University. Only approved credits and equivalencies earned overseas in the above manner may be reported on students’ Philadelphia University transcripts.

Philadelphia University’s expanding program offers study-abroad options in such diverse locations as Australia, China, Denmark, England, France, Germany, Italy, Japan, Mexico, Scotland and Spain. Applications and information may be obtained from the Study Abroad Office. General information is available on the Study Abroad Web site at www.PhilaU.edu.
Basic Requirements for Study Abroad:
- Philadelphia University-approved program of study;
- Completion of 60 credits by the start of studies abroad (semester/academic year abroad);
- 2.5 cumulative GPA both at the time of application and at the end of the semester preceding studies abroad;
- Two Study Abroad recommendation forms completed by faculty members at Philadelphia University;
- Certification from the Office of Student Life that the student is not on disciplinary probation at the time of application to Study Abroad. Students on disciplinary probation may not apply;
- A short, formal essay detailing how the student hopes to benefit from studying abroad;
- Other requirements as may be noted on the Study Abroad application.

Note: Schools and departments may impose additional requirements. Students are also subject to the academic requirements of foreign institutions and the immigration laws of foreign nations.

Honors Program

The Honors Program brings together highly motivated students and dedicated faculty in a program that is both challenging and supportive. The program aims to reach beyond professional or specialized study to inspire students to a lifetime of broad intellectual curiosity, self-sustained inquiry and personal growth. It attempts to develop critical thinking, leadership skills and awareness of global issues.

A combination of enriched courses and co-curricular activities, the program is designed to challenge the best students at the University. Faculty and students join in a common intellectual and social venture; share an openness to new ideas; commit to the energetic pursuit of excellence; and nurture the complete development of the individual. In each course, faculty attempt to foster a climate in which individual differences contribute richly to a common pursuit of learning.

The core of the program is composed of seven Honors-level courses in the College Studies curriculum. As a capstone course, all Honors scholars enroll in an Honors section of the COLLST-499 Contemporary Perspectives course during their senior year. Honors credits can be met in a variety of ways. Honors options range from more traditional choices, such as enrolling in Honors classes and studying abroad, to creating an individualized college experience through specialized research, independent study, or assuming leadership roles in community-service projects.

Writing Across the Curriculum

Philadelphia University recognizes the vital role of written communication in college, the workplace, and the community. As a result, students begin in the first year with a dynamic and demanding writing across the curriculum program that includes a wide range of academic and professional writing. The writing curriculum is integrated throughout the institution’s professional majors and the general education core. Before graduating, all Philadelphia University undergraduate students must complete two writing-specific courses and four courses designated in the University Catalog as writing-intensive (WI). In addition, students are also required to complete numerous and diverse writing assignments in courses, studios, and labs that carry neither the writing-specific nor the writing-intensive designation. The Writing Across the Curriculum program supports Philadelphia University’s commitment to fostering strong writing skills so that students will be able to write well both in their lives as college students and later as professionals and citizens. Toward this end, the program offers Honors, Fundamentals, and English as a Second Language writing courses. Students may also pursue a range of additional opportunities to write in co-curricular and professional arenas such as the student newspaper, the TEXT; the student yearbook, Analysis; and Open: A Writing & Design Collaboration. Professional writing tutors in the Learning & Advising Center support students in all subjects and at all levels of the curriculum.

Information Literacy

Information literacy is embedded in the curricula of each school. Students are exposed to information literacy concepts in the context of their professional programs, in addition to their College Studies courses. Students learn how to use the information resources and technologies relevant to their lives as scholars on campus and as professionals in the field. Throughout their undergraduate career, students gain practical experience in the critical application of data and information to various information needs and problems.

The 21st-century workplace recognizes the value of information-literate employees. Today’s technology and knowledge-driven economy demands highly skilled workers who are adaptable, resourceful, intrinsically motivated and able to learn. Through the University’s efforts to create information-literate graduates, students engage in the same process of information problem solving that will continue for the rest of their lives.
Academic Support Services

Academic Achievement Program/Act 101
The Academic Achievement Program/Act 101 (AAP) provides support services, leadership development, a sense of community, and access to cultural activities so that AAP students may persist in college and attain a degree. To be eligible for the AAP Program, students must be residents of the Commonwealth of Pennsylvania, meet financial requirements as stipulated by the Pennsylvania Department of Education and meet academic requirements as identified by the University.

Disability Services
Any student with a documented disability, including a physical impairment, learning disability or psychological disability, is eligible for services and reasonable accommodations. Accommodations include, but are not limited to, untimed tests, distraction-free testing environment, note takers, textbooks on tape, reduced course load, assistive technology and adaptation to physical facilities.

The Learning and Advising Center
The Learning and Advising Center is the University’s comprehensive source for academic assistance. The Center offers a wide range of advising and tutoring services.

Academic Advising
Academic advisors assist students in meeting their educational goals and utilizing campus resources. Advising for first-year, day-division students and students who have not declared their major is provided by the Learning and Advising Center. Upper-level, day-division students who have declared their major are assigned advisors in their schools. An important tool for advisors is the Academic Alert Program through which faculty provide advisors with information regarding students’ academic performance.

The Office of Continuing and Professional Studies advises Continuing Studies students. The office maintains regular evening hours. In addition, students may elect advising via telephone or email.

Majors Advising
Students who have not yet declared a major or who are thinking about changing their major are encouraged to meet with the director of the Learning and Advising Center. Students have the opportunity to discuss possible majors, to take an interest inventory, and to talk with appropriate professionals on campus about the fields they are considering.

Majors Undeclared
Students who wish to explore possible majors may keep their options open during their first two years at the University. Students who choose not to declare a major must work closely with their academic advisors and the director of Learning and Advising Center to select courses that will help them to prepare to enter a specific major. Undeclared students are urged to declare a major after they have completed 30 credits. They are required to declare a major after they have completed 60 credits.

Tutoring Services
Both professional and peer tutoring are available to all Philadelphia University students who wish to improve performance or maintain high grades in a variety of subject areas. Students work one-on-one or in small groups with professional or peer tutors. Workshops are offered in areas such as time management and note- and test-taking strategies. Other workshops target skills needed for particular courses. All of these services are available at no cost to Philadelphia University students.
Included in the Learning and Advising Center are the following tutoring services:

- **Professional and peer tutoring** is available for all levels of math courses.
- **Writing assistance** is available at all stages of the writing process, from help with organizing ideas and getting started on papers to revising final drafts. Specialized help is also available for writing research papers and for problems with documenting sources, grammar, and punctuation.
- **Study Skills/Test Taking Strategies**: Specialized help is available for students who want to read, study, and take tests more effectively. Common problems include trouble concentrating or remembering class or textbook material, excessive hours spent reading assignments or recopying notes, and/or poor quiz or test scores.
- **English as a Second Language**: Students speaking English as a second language can receive both specialized professional help and student assistance in coursework and general language skills, including writing, reading, listening, and speaking.

**Tutoring**: Peer tutoring related to specific academic courses is offered for students by fellow students experienced in the subject, recommended by faculty, and trained in learning techniques.

**Other Advising Services**

Students who plan to take courses at another institution must obtain the request forms and begin the process at the Learning and Advising Center or the Office of Continuing and Professional Studies. Forms are also available for students who wish to change major. The Learning and Advising Center also clarifies academic policy for faculty, staff and students. Students planning to take a leave of absence or withdraw from the University can obtain forms from the Registrar’s Office.
School of Architecture

Interim Dean: V. Nathan
Interim Director, Architecture Program: C. Hermann
Director, Interior Design Program: V. Nathan
Director, Landscape Architecture Program: C.G. Phillips

The School of Architecture recognizes that design professionals require an in-depth understanding of economic, technical and aesthetic issues within a complex social, cultural, and environmental framework. Building on the University's goal to provide professional skills combined with a broad general education, the School's mission is to prepare students to be creative, independent thinkers and innovative problem solvers. Emphasis is placed on critical excellence, balanced with the fundamental knowledge and skill required for meaningful contributions to professional design practice. In congruence with the mission of the University, the School encourages students to establish a “foundation for success, lifelong learning, and active citizenship,” as stewards of a sustainable society.

The School draws from the academic context, location, and professional orientation of the University in pursuing its mission. Six different career options are offered in an intimate collegiate setting and cooperative faculty/student-learning environment. The School encourages interdisciplinary and collaborative work in offering the following professionally related degree programs:

- Five-Year Bachelor of Architecture (B.Arch.)
- Four-Year Bachelor of Science in Architectural Studies (B.S.)
- Five-Year Joint Bachelor of Science in Architectural Studies/M.B.A. Program
- Four-Year Bachelor of Science in Interior Design (B.S.)
- Five-Year Bachelor of Landscape Architecture (B.L.A.)
- Joint Degree Program (B.S.)

The five-year Bachelor of Architecture (B.Arch.) program, accredited by the National Architectural Accrediting Board (NAAB), is committed to an interdisciplinary approach at all levels of the curriculum. It shares an integrated curriculum with Landscape Architecture and Interior Design, providing students with opportunities for collaboration and time to experience aspects of allied design disciplines. The studio, considered the core of the architecture program, is the center of activity where course material and learning are synthesized. Opportunities are provided for professional internships, study abroad, elective enrichment, specialization, and independent pursuits.

The four-year Bachelor of Science in Architectural Studies (B.S.) and the five-year Joint Bachelor of Science in Architectural Studies/M.B.A. programs offer pre-professional degrees for those who wish to have a foundation in the field of architecture. These programs share foundation studies courses; required technology, visualization, and history courses; and elective courses within Architecture, Landscape Architecture, and Interior Design.

The four-year Bachelor of Science in Interior Design (B.S.) program prepares graduates to be articulate, creative and socially aware design professionals. Specific highlights of the program include accreditation by the Council for Interior Design Accreditation (CIDA, formerly known as FIDER), interdisciplinary studios with allied design disciplines, study abroad, professional internships in design offices, elective enrichment, specialization, independent pursuits, and collaboration.

The five-year Bachelor of Landscape Architecture (B.L.A.) program meets the needs of landscape architecture students who are pursuing a first professional undergraduate degree. Throughout the education process, landscape architecture students are challenged to develop a thorough understanding of a site including its socio-cultural and environmental factors. At the core of the program are planning and design studios in which students focus on the development of sustainable responses and solutions to site problems and opportunities. The Landscape Architecture Program received Candidacy Status in 2006 and the University plans to pursue full accreditation for the Landscape Architecture Program with the Landscape Architectural Accreditation Board (LAAB).

The Joint Degree Program (two concurrent degrees) is available in the following programs: Bachelor of Architecture, Bachelor of Science in Industrial Design, Bachelor of Landscape Architecture, or Bachelor of Science in Interior Design. The joint degree allows the student to proactively focus the course of study and expand the range of skills across the design disciplines. The student will be educated in two areas of design that are unique in approach and process, but are intertwined to gain a more integrated perspective on the design field.

The combined requirements will necessitate the completion of a greater total number of credits than either degree taken separately. An advisor in each program is necessary. Certification for each degree will occur in the corresponding program.

Retention of Student Work

Projects completed by students in design studios and courses may be selected to become part of the University’s collection for exhibition and/or review. Student work not selected will be stored for only 30 days into the following semester.
Architecture

The primary goal of the five-year Bachelor of Architecture (B.Arch.) program is to provide a comprehensive professional education that will develop the knowledge, skill and vision necessary for the student to understand contemporary global issues and address the varied needs of society.

Fundamental to the program's philosophy is a commitment to design excellence and innovation, including the nurturing of creative individuals. An essential premise of the program is the recognition of the critical relationship between theory and practice in shaping and sustaining the built environment (buildings, cities and landscapes). A diverse faculty, traditional campus setting and dynamic urban context combine to create an ideal environment for the development of the intellectual rigor and imagination necessary to achieve the program's goals.

The faculty of the Architecture program includes individuals accomplished in research, design and professional practice. Areas of faculty expertise include history, theory, technology, professional practice, sustainable design and digital technologies. Adjunct faculty and visiting critics complement full-time faculty, bringing contemporary theory and practical experience from the region's leading architectural practices. In the professional architecture program, the design studio is the focus of activity where course work and learning are synthesized and design fundamentals are stressed. The content of the curriculum is based on recognition of local, regional and global views of architecture. Emphasis is on understanding the forces that shape design and the process of making buildings and places. During the first year, foundation studies courses are conducted in an interdisciplinary environment, introducing principles, values and the common vocabulary necessary for effective professional teamwork. The second-year foundation studies courses continue teaching the building blocks for future design studios. Also, during the first two years, general education courses are emphasized and digital, technical and history of architecture and interiors courses are introduced.

During the third, fourth and fifth years, more advanced technical and professional courses are added to the curriculum, supporting studio design projects of increasing complexity and scope. In the fourth year, an elective design studio is available. Options range from specialized studios within the Architecture program to design studios offered by the other programs on campus and studios set in study-abroad programs. The Architecture program has an established study-abroad program in Rome, Italy, with the American University of Rome. In the fifth year, first semester, systems synthesis and collaboration are emphasized in addressing complex urban/suburban and theoretical problems. Studio instruction emphasizes independent research, programming and critical analysis in establishing the theoretical basis for design work. Thesis and faculty-directed capstone studio options are offered during the final semester. The thesis option requires an approved thesis proposal. Studio instruction emphasizes independent research, programming and critical analysis in establishing the theoretical basis for design work. Both options require comprehensive designs that articulate the physical, spiritual and theoretical objectives and demonstrate full resolution of the project.

Elective studio and course options at the advanced levels are designed to encourage students to develop their individual interests and professional directions. In addition to courses in other schools and programs, opportunities for specialization and enrichment are also available in areas such as housing, experimental structures/materials, furniture design, historic preservation, design theory, photography and visualization techniques.

In support of the goals for professional education, the Architecture program is committed to providing state-of-the-art computer technology and software to facilitate the integration of digital technologies in the design process and project development. The School of Architecture strongly recommends that students purchase a laptop computer before entering the third year of the professional practice programs: Bachelor of Architecture; Bachelor of Science in Interior Design; and Bachelor of Landscape Architecture. Visit www.PhilaU.edu/oit for hardware and software recommendations.

Professional Accreditation
The five-year Bachelor of Architecture (B.Arch.) program is accredited by the National Architectural Accrediting Board (NAAB). Five years of study is the minimum time required for this professional B.Arch. degree.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture.

A program may be granted a six-year, three-year or two-year term of accreditation, depending on its degree of conformance with established educational standards. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.
FIRST YEAR
College Studies
WRTG-101 Writing Seminar I 3
SCI-101 Environmental Science (Fall) 3
HIST-1XX Historical Understanding I 3
PHYS-101 General Physics (Spring) 3

Quantitative Reasoning I + II 6-8
MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or
MATH-102 + MATH-111 Pre-Calculus + Calculus I or
MATH-111 + MATH-112 Calculus I + Calculus II

Major Core
ADFND-101 Design I: Interdisciplinary Foundation Studies (Fall) 4
ADFND-102 Design II: Interdisciplinary Foundation Studies (Spring) 4
DRAW-101 Drawing I (Fall) 3

Designated Electives
Designated Visualization Elective (Spring) 3
(select one) ADFND-104, INTD-106, ADFND-110, ADFND-112, LARCH-203

Physical Education
PE-XX Physical Education .5
PE-XX Physical Education .5

Credit Total 33-35

SECOND YEAR
College Studies
SOC – 2XX Social Sciences I 3
WRTG - 2XX Writing Seminar II (recommend WRTG-215) 3

Major Core
ARCH-201 Design III: for Architecture and Landscape Foundation Studies (Fall) 4
ARCH-202 Design IV: Architecture Foundation Studies (Spring) 4
ARCHDSN-208 Visualization I: Digital Modeling 3
AHIST-205 History of Architecture and Interiors I (Fall) (fulfills College Studies Arts and Culture Requirement) 3
AHIST-206 History of Architecture and Interiors II (Spring) 3
ARCHDSN-210 Technology I: Material and Methods (Fall) 3
ARCH-211 Technology II: Systems and Sustainability (Spring) 3

Credit Total 32

THIRD YEAR
College Studies
LIT/HUMN-2XX Humanities I 3
Junior Seminar 3
Junior Seminar 3
Language or Area Studies II 3

Major Core
ARCH-301 Design V: Architecture and Landscape Studio 5
ARCH-302 Design VI: Architecture Studio 5
AHIST-305 History of Architecture and Interiors III (Fall) 3
AHIST-306 History of Architecture and Interiors IV (Spring) 3
ARCH-309 Structures I (Fall) 2
ARCH-310 Structures II (Spring) 2

Credit Total 32

FOURTH YEAR
College Studies
COLLST-499 Contemporary Perspectives 4

Major Core
ARCH-402 Design VIII: Architecture Studio 6
ARCH-403 Technology III: Lighting and Acoustics (Fall) 3
ARCH-404 Technology IV: Dynamic Systems (Spring) 3
ARCH-405 Structures III (Fall) 2
ARCH-406 Structures IV (Spring) 2
ARCH-408 Visualization II: Technical Documentation 3

Designated Electives
History/Theory Elective (select one) 3

**Architecture Elective 3

Free Elective
Elective 3
Elective 3

Credit Total 35

FIFTH YEAR
Major Core
ARCH-501 Design IX: Architecture Studio (Fall) 6
ARCH-502 Design X: Architecture Studio (Spring) 6
ARCH-511 Technology V: Advanced Lab (Fall) 3
ARCH-505 Professional Management I (Fall) 2
ARCH-506 Professional Management II (Spring) 2

Free Elective
Elective 3
Elective 3
Elective 3
Elective 3

Credit Total 34

DEGREE TOTAL 166-168

**Architecture Electives (approved by advisor and program director)
Architectural Studies

The Bachelor of Science in Architectural Studies program offers a pre-professional degree for those wishing a foundation in the field of architecture. The degree is intended to serve as an introduction to the study of architecture as preparation for advanced degree programs (i.e., architecture, landscape architecture, planning, business, architectural photography, preservation, etc.) or for employment in the construction industry and other related fields. The Bachelor of Science in Architectural Studies is not intended as preparation for architectural practice.

The first two years of the Architectural Studies curriculum are similar to the first two years of the five-year professional architecture (B.Arch.) program curriculum. The program shares foundation studies courses and required technology, visualization and history courses, as well as elective courses with the Architecture, Landscape Architecture and Interior Design programs. During the first year, foundation studies courses are conducted in an interdisciplinary environment, introducing principles, values and a common vocabulary. The second-year foundation studies courses continue teaching the building blocks of design for future studios. Also, during the first two years, general education courses are emphasized.

In the third and fourth years of the curriculum, students majoring in Architectural Studies are required to complete a minor (12 credit hour minimum) or the construction management concentration (27-30 credit hour requirement) in addition to required Architecture, College Studies and elective courses. Minors should be selected from the catalog list or designed individually with the advisor as a custom minor. Students should plan their minors with the assistance of their academic advisors. Minors or concentrations must be approved by the student’s academic advisor and program director.

**FIRST YEAR**

**College Studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WRTG-101</td>
<td>Writing Seminar I</td>
<td>3</td>
</tr>
<tr>
<td>SCI-101</td>
<td>Environmental Science (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>HIST-1XX</td>
<td>Historical Understanding I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS-101</td>
<td>General Physics (Spring)</td>
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<tr>
<td><strong>Quantitative Reasoning I + II</strong></td>
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<td><strong>6-8</strong></td>
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<td>MATH-100/101 + MATH-103</td>
<td>Finite Math + Introduction to Calculus</td>
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<tr>
<td>MATH-102 + MATH-103</td>
<td>Pre-Calculus + Introduction to Calculus</td>
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<tr>
<td>or</td>
<td>MATH-102 + MATH-111</td>
<td>Pre-Calculus + Calculus I or</td>
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<tr>
<td>MATH-111 + MATH-112</td>
<td>Calculus I + Calculus II</td>
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**Major Core**

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<tr>
<td>ADFND-101</td>
<td>Design I: Interdisciplinary Foundation Studies (Fall)</td>
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</tr>
<tr>
<td>ADFND-102</td>
<td>Design II: Interdisciplinary Foundation Studies (Spring)</td>
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<tr>
<td>DRAW-101</td>
<td>Drawing I (Fall)</td>
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**Designated Electives**

Designated Visualization Elective (Spring) 3
(select one) ADFND-104, INTD-106, ADFND-110, ADFND-112, LARCH-203

**Physical Education**

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<td>PE-XX</td>
<td>Physical Education</td>
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<tr>
<td>PE-XX</td>
<td>Physical Education</td>
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**Credit Total** 33-35

**SECOND YEAR**

**College Studies**

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<tr>
<td>SOC - 2XX</td>
<td>Social Sciences I</td>
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<tr>
<td>WRTG-2XX</td>
<td>Writing Seminar II</td>
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<tr>
<td></td>
<td>Language or Area Studies I</td>
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**Major Core**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARCH-201</td>
<td>Design III: Architecture and Landscape Foundation Studies (Fall)</td>
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<td>ARCH-202</td>
<td>Design IV: Architecture Foundation Studies (Spring)</td>
<td>4</td>
</tr>
<tr>
<td>ARCHDSN-208</td>
<td>Visualization I: Digital Modeling</td>
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<tr>
<td>AHIST-205</td>
<td>History of Architecture and Interiors I (Fall)</td>
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<tr>
<td>(fulfills College Studies Arts and Culture Requirement)</td>
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<tr>
<td>AHIST-206</td>
<td>History of Architecture and Interiors II (Spring)</td>
<td>3</td>
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<tr>
<td>ARCHDSN-210</td>
<td>Technology I: Material and Methods (Fall)</td>
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<tr>
<td>ARCH-211</td>
<td>Technology II: Systems and Sustainability (Spring)</td>
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**Credit Total** 32

**THIRD YEAR**

**College Studies**

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<th>Course Title</th>
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<td>LIT/HUMN-2XX</td>
<td>Humanities I</td>
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<tr>
<td></td>
<td>Junior Seminar</td>
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<tr>
<td></td>
<td>Junior Seminar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Language or Area Studies II</td>
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**Major Core**

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<th>Course Title</th>
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<tbody>
<tr>
<td>AHIST-305</td>
<td>History of Architecture and Interiors III (Fall)</td>
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<tr>
<td>AHIST-306</td>
<td>History of Architecture and Interiors IV (Spring)</td>
<td>3</td>
</tr>
<tr>
<td>*ARCH-309</td>
<td>Structures I (Fall)</td>
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</table>

**Designated Electives**

Arch/ID Elective ** 3

**Minor**

Minor 3

Minor 3

**Credit Total** 29-30
**Construction Management Concentration**

This concentration provides a foundation in the field of Construction Management. Courses cover a range of topics from construction technologies to business practices and offer a broad understanding of issues essential to the planning, programming and supervision of complex construction projects.

**Required courses: (27-30 Credits)**

<table>
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<tr>
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<th>Course Title</th>
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<tr>
<td>ARCH-427</td>
<td>Construction Management I</td>
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<td>ARCH-4xx</td>
<td>Construction Management II</td>
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<tr>
<td>ARCH-310</td>
<td>Structures II</td>
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<td>ARCH-405</td>
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</tr>
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<td>ARCH-406</td>
<td>Structures IV</td>
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<tr>
<td>INTD-305</td>
<td>Interior Building Systems</td>
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<tr>
<td>ARCH-426</td>
<td>Habitat/Housing or ARCH-401 Design VII for Architecture (Design/Build option only)</td>
</tr>
<tr>
<td>ARCH-403</td>
<td>Technology III: Lighting and Acoustics</td>
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<tr>
<td>ARCH-404</td>
<td>Technology IV: Dynamic Systems</td>
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**Recommended electives: (6-9 Credits)**

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<tr>
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<tr>
<td>BLAW-301</td>
<td>Business Law I</td>
</tr>
<tr>
<td>ACCT-102</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>ARCH-414</td>
<td>Experimental Materials</td>
</tr>
<tr>
<td>ARCH-411</td>
<td>Experimental Structures</td>
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</table>
The joint program in Bachelor of Science in Architectural Studies/M.B.A. offers the opportunity to combine the Architectural Studies program with a pre-M.B.A. minor for non-business majors. Upon completion of the requirements outlined below, students in good standing will be awarded first the B.S. in Architectural Studies and then the M.B.A.

The Bachelor of Science in Architectural Studies (pre-M.B.A. minor) offers a pre-professional degree for those wishing a foundation in architecture and business. The degree is intended to serve as preparation for application to the M.B.A. program or as preparation for employment in the construction industry, business and other related fields. The Bachelor of Science in Architectural Studies (pre-M.B.A. minor) is not intended as preparation for architectural practice.

The first two years of the Architectural Studies curriculum are similar to the first two years of the five-year Architecture (B.Arch.) program curriculum. The program shares foundation studies courses and required technology, visualization and history courses, as well as elective courses with the Architecture, Landscape Architecture, Interior Design and Industrial Design programs. During the first year, foundation studies courses are conducted in an interdisciplinary environment, introducing principles, values and a common vocabulary. The second year foundation studies courses continue teaching the building blocks of design for future studios. Also, during the first two years, general education courses are emphasized.

In the third and fourth years of the curriculum, students are required to complete a 27-credit hour pre-M.B.A. minor in addition to required Architecture, College Studies, and elective courses. The pre-M.B.A. minor is composed of a series of undergraduate and graduate business courses. Official application to the M.B.A. program may be made only after completion of the sophomore year and no later than the start of the senior year. Application should be made through the Graduate Admissions Office. Transfer students may also apply. Currently enrolled students will be considered for admission if they have maintained a 3.0 GPA. The GMAT is required for full acceptance to the M.B.A. program and must be taken before the end of the senior year.

Students interested in the Joint B.S./M.B.A. program should obtain a copy of the “Pre-M.B.A. Requirements for Non-Business Majors: Planning Guide.” The guide describes the requirements for admission and the application process as well as the Pre-M.B.A. course requirements. Planning guides are available from upper-level advisors, as well as from the Graduate Business Programs Office in Tuttleman 104.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
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<td>Designated Electives**</td>
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<tr>
<td>Pre-MBA Minor</td>
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<tr>
<td>MGMT-301 Principles of Management</td>
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<td>MKTG-102 Principles of Marketing</td>
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<tr>
<td>Pre-MBA Minor</td>
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<tr>
<td>MGMT-401 Operations Management (or MF10) (Spring)</td>
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<tr>
<td>FINC-308 Financial Management (or MF05) (Spring)</td>
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<tr>
<td>MBF-503 Foundations of Economic Analysis</td>
<td>3</td>
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<td>MBF-504 Financial &amp; Managerial Accounting (Fall)</td>
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<tr>
<td>MBF-508 Statistical Analysis for Business (Fall)</td>
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<tr>
<td>MBA-625* Management Communications and Negotiations</td>
<td>3</td>
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<tr>
<td>MBA-628* Accounting for Management Decisions (Spring)</td>
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**B.S. DEGREE TOTAL 126-128**

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<tr>
<td>Major Core</td>
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<tr>
<td>MBA-626* Global Managing in the 21st Century (Summer)</td>
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<tr>
<td>MBA-627* Management of Information Through Technology (Summer)</td>
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<td>MBA-629* Financial Policy &amp; Planning (Fall)</td>
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<tr>
<td>MBA-630* Advanced Operations Management (Fall)</td>
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<td>MBA-632* Strategic Marketing Management (Fall)</td>
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<td>MBA-740* International Business (Spring)</td>
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<td>MBA-642* Strategic Planning in a Global Environment (Spring)</td>
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<td>MBXX International Elective</td>
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**JOINT B.S./M.B.A. TOTAL 153-155**

**Designated Electives (approved by advisor and program director)**
The Bachelor of Science in Interior Design provides an extensive education to meet the demands and challenges of this exciting and creative profession. In preparation for a rapidly evolving, technology- and information-driven society, an interior design requires an in-depth understanding of the aesthetic, cultural, technical, environmental and economic issues pertaining to the built environment.

The mission of the Interior Design program is to prepare designers to become innovative problem solvers and independent thinkers, who can begin the professional licensing process. The program strives to instill its graduates the highest standards of professionalism and professional practice, integrity, competence and excellence in design. A multidisciplinary faculty and a close-knit campus community provide a stimulating setting for the informed and inventive academic development of every student.

This four-year professional program is accredited by the Council for Interior Design Accreditation (CIDA, formerly known as FIDER). At the program’s core are design studios in which students explore the creative process through a series of varied and progressively more complex projects. The functional knowledge necessary for design is introduced through formally structured courses focusing on such varied topics as construction, building codes, lighting, acoustics and mechanical systems; as well as furniture, finishes and fabrics. The interior design studios foster an interdisciplinary environment, centered on creative experimentation, where material from other courses is synthesized through the act of design. Each year, the student will build upon earlier courses and begin to integrate functional issues into the design studio. In the fourth year, the thesis is the culmination of all previous studies, integrating design ideas, history, theory, humanistic values and innovative materials in shaping interior spaces.

Students may follow secondary specializations in business, marketing and textile applications in interiors or furniture design. Philadelphia University also offers a unique opportunity to gain a valuable, highly specialized knowledge of fibers and fabrics at the Grundy Laboratory and at The Design Center at Philadelphia University. The educational quality of the program is further enhanced by the solid liberal arts foundation required of all students.

The program is grounded in the belief that interior designers should enter the global marketplace as articulate, creative, inspired designers and socially aware professionals. The program seeks to instill in students an awareness and sensitivity to the social, technological, aesthetic, cultural and ethical responsibilities involved in the design of living and working environments.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
<td>WRG-101 Writing Seminar I</td>
<td>3</td>
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<tr>
<td>SCI-101 Environmental Science (Fall)</td>
<td>3</td>
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<tr>
<td>HIST-1XX Historical Understanding I</td>
<td>3</td>
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<tr>
<td>PHYS-101 General Physics (Spring)</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning I + II</td>
<td>6-8</td>
</tr>
<tr>
<td>MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus II</td>
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<table>
<thead>
<tr>
<th>Major Core</th>
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<tbody>
<tr>
<td>ADFND-101 Design I: Interdisciplinary Foundation Studies (Fall)</td>
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<td>ADFND-102 Design II: Interdisciplinary Foundation Studies (Spring)</td>
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<td>INTD-106 Technical Drawing &amp; Graphic Representation (Spring)</td>
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<td>DRAW-101 Drawing I (Fall)</td>
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**Credit Total** 33-35

**SECOND YEAR**

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<tr>
<td>SOC-2XX Social Sciences I</td>
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<tr>
<td>WRG-2XX Writing Seminar II (recommend WRG-215)</td>
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<td>WRG-2XX Language or Area Studies I</td>
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<tr>
<td>INTD-201 Design III for Interior Design (Fall)</td>
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<tr>
<td>INTD-202 Design IV for Interior Design (Spring)</td>
<td>4</td>
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<tr>
<td>ARCHDSN-208 Visualization I: Digital Modeling</td>
<td>3</td>
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<tr>
<td>AHIST-205 History of Architecture and Interiors I (Fall fulfills College Studies Arts and Culture Requirement)</td>
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<tr>
<td>AHIST-206 History of Architecture and Interiors II (Spring)</td>
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<tr>
<td>ARCHDSN-210 Technology I: Materials and Methods (Fall)</td>
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<tr>
<td>INTD-206 Interior Building Technology (Spring)</td>
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**Credit Total** 32
### THIRD YEAR

**College Studies**

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<td>LIT/HUMN-2XX</td>
<td>Humanities I</td>
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<td>Junior Seminar</td>
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<td>Language or Area Studies II</td>
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**Major Core**

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<tr>
<td>INTD-301</td>
<td>Design V for Interior Design (Fall)</td>
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<td>INTD-302</td>
<td>Design VI for Interior Design (Spring)</td>
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<tr>
<td>INTD-310</td>
<td>Textiles &amp; Materials for Interiors &amp; Architecture (Spring)</td>
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<tr>
<td>AHIST-305</td>
<td>History of Architecture and Interiors III (Fall)</td>
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<tr>
<td>AHIST-306</td>
<td>History of Architecture and Interiors IV (Spring)</td>
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<tr>
<td>INTD-305</td>
<td>Interior Building Systems (Fall)</td>
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**Credit Total**

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### FOURTH YEAR

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<td>COLLST-499</td>
<td>Contemporary Perspectives</td>
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**Major Core**

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<td>INTD-308</td>
<td>CAD II for Interior Design (Fall)</td>
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<tr>
<td>INTD-401</td>
<td>Design VII for Interior Design (Fall)</td>
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<tr>
<td>INTD-487</td>
<td>Interior Design Thesis Preparation (Fall)</td>
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<td>INTD-488</td>
<td>Thesis in Interior Design (Spring)</td>
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<tr>
<td>INTD-412</td>
<td>Interior Professional Practice &amp; Contract Design (Spring)</td>
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**Free Elective**

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**Designated Elective (approved by advisor and program director)**
Landscape Architecture

The primary goal of the five-year Bachelor of Landscape Architecture Program is to meet the needs of Landscape Architecture students who are pursuing a first, professional undergraduate degree. As with other School programs, the Landscape Architecture Program endeavors to provide a comprehensive professional education that will develop the knowledge, skill and vision necessary for the student to understand contemporary global issues and address the varied needs of society. Building on the School’s mission to prepare students to be creative, independent thinkers and innovative problem solvers, the Landscape Architecture Program promotes sustainable landscape design, with particular emphasis on ecological planning and design in the urban environs.

The Landscape Architecture Program strives to provide local and regional leadership in confronting ecological issues of the natural and built environments within the Philadelphia Metropolitan corridor (New York City to Washington, D.C.). The focus is on urban ecological issues while searching for environmentally sustainable solutions to human problems of growth and development. The program is committed to providing leadership in confronting issues that affect urban neighborhoods, particularly those that are in need of revitalization. As its field of inquiry, the program uses the Mid-Atlantic region, which encompasses a variety of landforms including the inner city, and suburban and rural landscapes. In addition, Philadelphia University is uniquely positioned on the edge of the Wissahickon Valley Park, a 1700-acre park within the Fairmount Park System, where natural systems and restoration techniques can be easily studied. The area has a vast concentration of cultural, social, historic, and natural systems, which present a vast resource to the student.

Throughout the education process, students are challenged to develop a thorough understanding of a site, including its socio-cultural and environmental factors. At the core of the program are planning and design studios where students focus on the development of sustainable responses and solutions to site problems and opportunities. The goal is to challenge students to create site-appropriate designs, as well as to enhance the value and sustainability of places. During the first year, foundation studies courses are conducted in an interdisciplinary environment, introducing principles, values, and the common vocabulary necessary for effective professional teamwork. The second-year foundation studies courses continue teaching the building blocks of design for future studios. Also, during the first two years, general education courses are emphasized and digital, technical and history of landscape architectural design.

During the third, fourth and fifth years, more advanced technical and professional courses are added to the curriculum, supporting studio-design projects of increasing complexity and scope. In the fourth year, an elective design studio is available. Options range from specialized studios within the Landscape Architecture Program to design studios offered by the other programs on campus and studios set in study-abroad programs. Also in the fourth year, Landscape Architecture students are encouraged to select an area of concentration (i.e., ecological design and planning, urban design, digital technology, etc.) that supports the elective studio option. In the fifth year, first semester, the design studio operates much like a professional office — students take a project from inception through construction documentation. Thesis (requiring an approved thesis proposal) and faculty-directed capstone studio options are offered during the final semester. Both options require comprehensive designs that articulate the physical, spiritual and theoretical objectives of the project and demonstrate full resolution of the landscape architectural design.

Elective studio and course options at the advanced levels are designed to encourage students to develop their individual interests and professional directions. In addition to the areas of concentration listed above and courses in other schools and programs (i.e., architecture; interior, graphic/digital, and industrial design; textiles; science; business; etc.), opportunities for specialization and enrichment are also available in areas such as design and human behavior, cultural and landscape preservation, animation, and photography.

In support of the goals for professional education, the Landscape Architecture Program is committed to providing state-of-the-art computer technology and software to facilitate the integration of digital technologies in design process and project development.

The University plans to pursue full accreditation for the Landscape Architecture program through the Landscape Architectural Accreditation Board (LAAB). In Spring 2006, the University applied and received Candidacy Status with LAAB. Five years of study is the minimum time required for this first professional degree at Philadelphia University.
## FIRST YEAR

### College Studies

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<td>SCI-101</td>
<td>Environmental Science (Spring)</td>
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<tr>
<td>HIST-1XX</td>
<td>Historical Understanding I</td>
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<tr>
<td>BIOL-101</td>
<td>General Biology</td>
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<td>Botany section (Fall)</td>
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### Quantitative Reasoning I + II

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MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus

or

MATH-102 + MATH-111 Pre-Calculus + Calculus I or
MATH-111 + MATH-112 Calculus I + Calculus II

### Major Core

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<td>ADFND-102</td>
<td>Design II: Interdisciplinary</td>
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<tr>
<td>ECBIO-207</td>
<td>Soils (Spring)</td>
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<td>DRAW-101</td>
<td>Drawing I (Fall)</td>
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*Note: All first-year Landscape Architecture students are required to attend the Program’s Thursday night lecture series.

## SECOND YEAR

### College Studies

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<td>SOC-2XX</td>
<td>Social Sciences I</td>
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<tr>
<td>WRTG-2XX</td>
<td>Writing Seminar II (recommend WRTG-215)</td>
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<tr>
<td>ARCH-201</td>
<td>Design III: Architecture and Landscape Foundation Studies (Fall)</td>
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<tr>
<td>ARCHDSN-208</td>
<td>Visualization I: Digital Modeling</td>
<td>3</td>
</tr>
<tr>
<td>AHIST-205</td>
<td>History of Architecture and Interiors I (Fall) (fulfills College Studies Arts and Culture Requirement)</td>
<td>3</td>
</tr>
<tr>
<td>LARCH-203</td>
<td>Graphics for Landscape Architecture (Fall)</td>
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<tr>
<td>LARCH-202</td>
<td>Design IV for Landscape Architecture (Spring)</td>
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<td>LARCH-206</td>
<td>History of Landscape Architecture I (Spring)</td>
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<td>LARCH-207</td>
<td>Technology I: Grading (Fall)</td>
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<tr>
<td>ECBIO-208</td>
<td>Local Flora (Spring)</td>
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<tr>
<th>Credits</th>
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## THIRD YEAR

### College Studies

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<tr>
<td></td>
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## FOURTH YEAR

### College Studies

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### Major Core

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<td>LARCH-401</td>
<td>Design VII for Landscape Architecture (Fall)</td>
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<td>LARCH-402</td>
<td>Design VIII for Landscape Architecture (Spring)</td>
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<td>LARCH-412</td>
<td>Technology III: Hydrology (Spring)</td>
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<td>ECBIO-409</td>
<td>Plant Field Ecology (Spring)</td>
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## FIFTH YEAR

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<td>LARCH-591</td>
<td>Research Methodology for Landscape Architecture</td>
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<td>LARCH-501</td>
<td>Design IX for Landscape Architecture (Fall)</td>
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<td>LARCH-502</td>
<td>Design X for Landscape Architecture (Spring)</td>
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<td>LARCH-513</td>
<td>Technology IV: Construction Documents</td>
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<td>LARCH-506</td>
<td>Professional Management for LA (Spring)</td>
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### Designated Electives

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<td>LARCH-202</td>
<td>Design IV for Landscape Architecture (Spring)</td>
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<td>LARCH-206</td>
<td>History of Landscape Architecture I (Spring)</td>
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<td>LARCH-207</td>
<td>Technology I: Grading (Fall)</td>
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<td>ECBIO-208</td>
<td>Local Flora (Spring)</td>
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### Credit Total

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### DEGREE TOTAL

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</thead>
<tbody>
<tr>
<td>164-166</td>
</tr>
</tbody>
</table>

*Concentration Electives (approved by advisor)
School of Business Administration

Interim Dean: E.L. Mariotz
Interim Assistant Dean: E. Keidat
Assistant Dean: M.S. McDonald

The School of Business Administration at Philadelphia University is committed to the development of students with the skills to operate in the global environment of modern businesses. These skills are predicated on the integration of general education, education in the functional areas of business, and education in and around a specialty within a field of business. Many business schools separate these three aspects of business education with general education occurring primarily in the first two years of undergraduate education, education in the functional areas of business occurring primarily in the third year and specialty education occurring primarily in the final year. At Philadelphia University, these three components of business education are integrated. In each of a student’s four years of study, aspects of all three components are studied. For example, while the freshman year is dominated by general education in areas such as science, mathematics and the humanities, students also begin their study of the functional areas of business and, in some cases, their specialty studies. Likewise, while the senior year is dominated by study in the student’s specialty, business students also take two capstone seminar courses: one in general education and one in business administration.

The faculty of the School of Business Administration consists of a full-time faculty of which, more than sixty percent hold doctorate degrees in their field of expertise. They conduct significant scholarship in their fields and have considerable professional experience as well. Additionally, the educational leadership of the full-time faculty is augmented by a group of adjunct faculty members. These individuals hold master’s or doctoral degrees in their fields and bring a wealth of current professional experience to their teaching endeavors. Graduate teaching assistants do not teach any courses in the School of Business Administration.

The School of Business Administration is a member of AACSB International — The Association to Advance Collegiate Schools of Business — and the curricula are designed to be consistent with the guidelines set forth by AACSB International. Faculty members belong to leading professional organizations such as the Academy of Management, Financial Management Association, Academy of International Business, American Marketing Association, American Accounting Association, American Institute of Certified Public Accountants, National Retail Federation and Fashion Group International.

Majors within the School of Business Administration:
• Accounting
• Fashion Merchandising
• Finance
• Financial Information Systems
• International Business
• Management
• Management Information Systems
• Marketing

Mission Statement
Philadelphia University’s School of Business Administration is committed to a tradition of undergraduate and graduate professional education. The School offers a comprehensive career-oriented education integrated with an internationally recognized liberal arts curriculum designed to balance general and professional education.

The School’s curriculum is built upon a solid core of courses that are applied to today’s ever-changing international business environment. Our unique integration of the core curriculum enhances the students’ analytical and communication skills, technological competency and literacy, ethical responsibility, global perspectives, and professionalism. Students are taught to collaborate across disciplines and functions to create knowledge and apply integrative solutions to complex problems.

Academic programs and services are offered in a highly personalized learning environment featuring small classes and ready access to faculty, reflecting the University’s commitment to excellence in teaching, as well as support for scholarship and professional development. The School is committed to making available to both undergraduate and graduate students various opportunities for experiential learning, such as internships, study abroad, and project-oriented coursework.

Our contemporary curriculum helps students become critical thinkers and well-rounded professionals.

Business Core
The center of business education at Philadelphia University is the business core. Within the core courses, two objectives are pursued. First, core coursework provides an understanding of the functional areas of business such as accounting, economics, management, and finance. Second, the core courses are used to impart a set of skills that are critical to professional success. Specifically, these courses are designed to develop a student’s skills in communications, computer technology, quantitative/analytical analysis, professionalism, global perspectives, and business ethics. The required core courses within the business curriculum (39 credit hours) are as follows:

ACCT-101 Financial Accounting
ACCT-102 Managerial Accounting
BLAW-301 Business Law I
ECON-205 Macroeconomics
ECON-206 Microeconomics
FINC-301 Financial Management
INFO-101 Introduction to Information Systems
MGMT-301 Principles of Management
MGMT-401 Operations Management
MGMT-490 Business Policy and Strategy
(Fashion Merchandising majors substitute MGMT-491)
STAT-202 Principles of Marketing
STAT-201 Statistics I

**Minors Within Business for Business Majors**

Business majors may choose to minor in any of the business areas. Certain majors require that the student minor in one of the other functional areas. For other majors, the election of a minor is left to the discretion of the student. More information can be found in “Minors.”

**Business Minor for Non-Business Majors**

Since the focus of Philadelphia University is on professional education, many graduates, whether architects, textile engineers or biologists, find themselves working in business organizations. Many of these students are interested in developing a firm foundation in business. Such a foundation gives students additional useful and marketable skills upon graduation. The business minor for non-business students is designed to provide a foundation in a broad range of business subjects. Additionally, since all of the courses in the minor are required foundation courses for the M.B.A. program, students completing the minor will be able to waive some pre-M.B.A. coursework. The business minor includes a total of 12 credit hours of study in business selected from the following courses:

- Required (6 to 9 credit hours):
  - ACCT-101 Financial Accounting
  - ECON-205 Macroeconomics and/or ECON-206 Microeconomics

Choose additional courses to total 12 credits hours from:

- BLAW-301 Business Law I
- ACCT-102 Managerial Accounting (prerequisite ACCT-101)
- FINC-301 Financial Management (prerequisites ACCT-101, and STAT-201 or MATH-321)

**Joint Bachelor’s/Master’s Program**

The School of Business Administration offers Master of Business Administration (M.B.A.) and Master of Science in Taxation (M.S. Taxation) programs. Undergraduates who qualify may elect to enter one of the joint-degree programs that allow students to earn both a bachelor’s and master’s degree. This is done by permitting students to take some graduate-level courses in their fourth year of undergraduate study that also count toward graduate program requirements. For more information about entrance requirements and program specifications, students should seek the assistance of their advisor.
Accounting

Accountants are skilled professionals who develop and examine the financial reporting and control systems used by business organizations, agencies and individuals to keep track of money, goods and services. A Bachelor of Science in Accounting can lead to careers in public, private or government accounting; as well as banking, finance and other management specialties.

Industry sources agree that the future of the accounting profession is bright. Today’s accountants are more technologically sophisticated. In addition, government regulations, the dynamics of the economy, public demands for improved government performance, and global business competition all increase the need for liberally educated accountants.

A sequence of business and general education courses prepares accounting graduates for all facets of the business world. Electives in specialties within the profession, such as tax accounting, are offered. Many students obtain C.P.A. (Certified Public Accountant) accreditation after graduation. Accounting majors may also pursue joint-degree programs (B.S./M.B.A. or B.S./M.S. Taxation).

FIRST YEAR

College Studies

WRTG-101 Writing Seminar I 3
SCI-101 Environmental Science 3
Arts and Culture 3
HIST 1XX Historical Understanding I 3
Quantitative Reasoning I + II 6-8
MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or
MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or
MATH-102 + MATH-111 Pre-Calculus + Calculus I or
MATH-111 + MATH-112 Calculus I + Calculus II

Business Core

INFO-101 Introduction to Information Systems (Fall) 3
MKTG-102 Principles of Marketing (Spring) 3
ACCT-101 Financial Accounting (Fall) 3
ACCT-102 Managerial Accounting (Spring) 3

Physical Education

PE-XX Physical Education 0.5
PE-XX Physical Education 0.5

Credit Total 31-33

SECOND YEAR

College Studies

Science II 3
SOC-2XX Social Sciences I 3
WRTG-2XX Writing Seminar II 3
Language or Area Studies I 3

Business Core

STAT-201 Statistics I (Fall) 3
STAT-202 Statistics II (Spring) 3
ECON-206 Microeconomics 3
ECON-205 Macroeconomics 3

Major Core

ACCT-203 Intermediate Accounting I (Fall) 3
ACCT-204 Intermediate Accounting II (Spring) 3

Credit Total 30-31

THIRD YEAR

College Studies

LIT/HUMN-2XX Humanities I 3
Junior Seminar 3
Junior Seminar 3
Language or Area Studies II 3

Business Core

MGMT-301 Principles of Management 3
BLAW-301 Business Law I 3
FINC-301 Financial Management 3

Major Core

ACCT-303 Accounting Theory and Practice 3
ACCT-316 Cost Accounting I 3
ACCT-309 Federal Taxes I 3

Minor

Courses in the minor, except for pre-M.B.A., may be taken during the third year

Credit Total 30

FOURTH YEAR

College Studies

COLLST-499 Contemporary Perspectives 4

Business Core

MGMT-401 Operations Management 3
MGMT-490 Business Policy and Strategy 3

Major Core

ACCT-409 Auditing (Fall) 3
ACCT-412 Advanced Accounting (Spring) 3

Minor Concentration or Free electives

Minor or Elective 3
Minor or Elective 3
Minor or Elective 3
Minor or Elective 3

Free Electives

Elective or Internship 3

Credit Total 31

DEGREE TOTAL 122-125
The Bachelor of Science in Fashion Merchandising prepares students for many exciting careers in the fashion industry. Advancements in technology and globalization of the marketplace make this industry an ever-changing, challenging place to work. These changes, and the fast pace of fashion, require bright, talented and highly motivated people to ensure the success of its businesses.

Students studying Fashion Merchandising take courses in marketing, management, economics, and business law and accounting; as well as courses in the fashion process from the creation of fabrics, through the production of apparel, to the marketing and selling of fashion to the consumer. Fashion Merchandising students have the opportunity to study abroad. They also have the opportunity to gain fashion-industry work experience through participation in the Internship Program. The Fashion Merchandising program develops and reinforces basic marketable skills like written and verbal communication, technology and information literacy, ethical discernment and professional etiquette.

Beginning with the first year, students have the opportunity to participate in professional networking opportunities such as industry forums and trips. These experiences are geared toward helping students learn about the various career opportunities available to them upon graduation. Graduates of the Fashion Merchandising program pursue careers in areas including retail buying, product development, store management and public relations.
Finance

The importance of the finance function is reflected in the fact that the majority of chief executive officers (CEOs) in the top 1,000 U.S. companies started their careers in finance. The Bachelor of Science in Finance includes three interrelated areas of finance needed for success: money and capital markets, investments, and financial management. Globalization of business was undoubtedly the most important development of the 90s and it has continued into the 21st century. Therefore, throughout the finance curriculum there is emphasis/focus on global aspects of business and financial management. Students are encouraged to think, analyze, and solve business problems in a global environment.

The 21st century will continue to see advances in computer and communications technology, and this technology will revolutionize the way financial decisions are made. Companies have networks of personal computers linked to one another, to other computer systems, and to their customers’ and suppliers’ computers around the world. The ability to access and analyze data on a real-time basis also means that quantitative analysis is used routinely to test out alternative courses of action. Keeping in mind that the next generation of financial managers will need stronger computer and quantitative skills, there is increased emphasis throughout the curriculum on developing and reinforcing computer, quantitative and analytical skills.

FIRST YEAR
College Studies
WRTG-101 Writing Seminar I 3
SCI-101 Environmental Science 3
Arts and Culture 3
Historical Understanding I 3
Quantitative Reasoning I + II 6-8
MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or
MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or
MATH-102 + MATH-111 Pre-Calculus + Calculus I or
MATH-111 + MATH-112 Calculus I + Calculus II
Business Core
INFO-101 Introduction to Information Systems (Fall) 3
MKTG-102 Principles of Marketing (Spring) 3
ACCT-101 Financial Accounting (Fall) 3
ACCT-102 Managerial Accounting (Spring) 3
Physical Education
PE-XX Physical Education 0.5
PE-XX Physical Education 0.5
Credit Total 31-33

SECOND YEAR
College Studies
WRTG-101 Writing Seminar II 3
SOC-2XX Social Sciences I 3
WRTG-2XX Writing Seminar II 3
Business Core
STAT-201 Statistics I (Fall) 3
STAT-202 Statistics II (Spring) 3
ECON-205 Macroeconomics 3
ECON-206 Microeconomics 3
Minor/Internship/free electives 6
Credit Total 30-31

THIRD YEAR
College Studies
SOC-2XX Social Sciences I 3
Language or Area Studies I 3
Junior Seminar 3
Junior Seminar 3
Humanities I 3
Business Core
BLAW-301 Business Law I 3
MGMT-301 Principles of Management 3
FINC-301 Financial Management 3
Major Core
FINC-321 Investments and Portfolio Management (Spring) 3
Select one of the following: FINC-322 (Fall), ECON-305 (Spring) 3
Advanced Finance Elective* 3
Credit Total 30

FOURTH YEAR
College Studies
COLLST-499 Contemporary Perspectives 4
Business Core
MGMT-401 Operations Management 3
MGMT-490 Business Policy and Strategy 3
Major Core
FINC-303 Intermediate Financial Management (Spring) 3
FINC-411 Finance Seminar (Fall) 3
Minor
Minor 3
Minor 3
Minor 3
Minor 3
Free Electives
Elective or Internship 3
Credit Total 31

DEGREE TOTAL 122-125

*Advanced Finance Electives: select one FINC-411, FINC-322, FINC-318, FINC-381, ECON-305
Financial Information Systems

The field of finance is being driven by two major developments—technology and globalization. The Bachelor of Science in Financial Information Systems (FIS) will allow students to integrate information technology (IT) and financial information in the development of business information systems. The major is intended to provide financial services professionals with the knowledge they need to:

- Leverage the latest information technologies to support the use of financial information in management decision-making, external reporting, and
- Integrate financial information and internal controls into cross-functional business information systems.

This major will be offered by Accounting, Finance, and information systems faculty members who have financial information systems teaching skills and research interests.

**FIRST YEAR**

**College Studies**

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<th>Course Name</th>
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<td>SCI-101</td>
<td>Environmental Science</td>
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<td>HIST-1XX</td>
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<td>MATH-102+MATH-111</td>
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**Business Core**

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<td>Principles of Marketing (Spring)</td>
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<td>ACCT-101</td>
<td>Financial Accounting (Fall)</td>
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<td>Managerial Accounting (Spring)</td>
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**Credit Total**

| Credits | 31-33 |

**SECOND YEAR**

**College Studies**

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<td>ECON-206</td>
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**Credit Total**

| Credits | 24-25 |

**THIRD YEAR**

**College Studies**

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**Business Core**

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<td>Principles of Management</td>
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<td>FINC-301</td>
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**Credit Total**

| Credits | 21 |

**FOURTH YEAR**

**College Studies**

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**Business Core**

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<tr>
<td>MGMT-490</td>
<td>Business Policy and Strategy</td>
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**Credit Total**

| Credits | 10 |

**Major Courses**

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<th>Course Name</th>
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<tr>
<td>FINC-321</td>
<td>Investment and Portfolio Management</td>
<td>3</td>
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<tr>
<td>FINC-XXX</td>
<td>Financial Modeling</td>
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<td>ACCT-203</td>
<td>Intermediate Accounting</td>
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<td>MIS-202</td>
<td>Management Information Systems</td>
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<td>MIS-XXX</td>
<td>Decision Support Systems</td>
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<tr>
<td>MIS-305</td>
<td>Database Analysis, Design, and Management</td>
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**Designated Elective (Choose one – 3 credits)**

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<td>Cost Accounting I</td>
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<tr>
<td>ACCT-309</td>
<td>Federal Tax I</td>
<td>3</td>
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<tr>
<td>FINC-318</td>
<td>International Finance</td>
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<tr>
<td>MIS-301</td>
<td>Survey of Programming Languages</td>
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**Electives (Internship highly recommended – 9 credits)**

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</tbody>
</table>

**Credit Total**

| Credits | 36 |

**DEGREE TOTAL**

| Credits | 122-124 |

Philadelphia University

2007 - 2008 Undergraduate Catalog
To strengthen their competitive edge in a global economy, U.S. and foreign firms must attract managers who possess a strong functional background, area training, and comprehensive international business skills. The Bachelor of Science in International Business at Philadelphia University is designed specifically to meet these industry needs.

This program enables students to combine an international business major with a traditional functional area such as accounting, finance, management, or marketing.

The International Business major consists of seven highly integrated components:
- College Studies
- Foreign language
- Area studies
- Business core courses
- International Business
- Functional Business, competence and
- Study or work abroad

The program is unique because it brings together these seven vital components, providing our graduates with the skills and the training expected in industry.

Graduates traditionally have a sense of adventure, are adaptive to new environments, and join global U.S. firms or foreign companies operating in the United States. Firms generally pay a substantial premium for graduates with the skills this program offers.

College Studies
Note: Six credits in language or area studies will partially satisfy foreign language and area studies requirements for the major (see below).

Below is a suggested distribution:
- Language Studies I
- Language Studies II
- Language Studies III
- Language Studies IV
- Area Studies

Note: The Area Studies must be consistent with the foreign language studies chosen.

Business Core

International Business Major Concentration
- MGMT-307 International Management
- B244 International Marketing
- FINC-318 International Finance and Development
- ECON-401 International Economics

**Secondary Major** (select one, four-course option)
- Accounting
  - ACCT-203, ACCT-204, ACCT-303 (required) and one additional courses from the following (#) ACCT-316, ACCT-309, ACCT-409, ACCT-412
- Finance
  - FINC-322 or ECON-305, and FINC-303, and FINC-321 (required) and one course from the following (#) FINC-313, FINC-333, FINC-411, ECON-315
- Management
  - MGMT-320, MGMT-412, MIS-202 (required) and one course from the following (#) MGMT-311, MGMT-326, MGMT-331, MGMT-381, MGMT-411, MGMT-416, MGMT-418, BUS-493, MIS-305, MIS-401, PSYCH-230, PSYCH-231
- Marketing
  - MKTG-207, MKTG-310, MKTG-391 (required) and one course from the following (#) MKTG-115, MKTG-217, MKTG-315, MKTG-318, MKTG-328, MKTG-381, MKTG-412

# Students may not use a major core course or Internship to satisfy these advanced electives

**FIRST YEAR**

College Studies
- WRTG-101 Writing Seminar I 3
- SCI-101 Environmental Science 3
- HIST-IXX Historical Understanding I 3
  - Language (I) 3
- Quantitative Reasoning I + II 6-8
- MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or
  - MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus
  - MATH-102 + MATH-111 Pre-Calculus + Calculus I or
  - MATH-111 + MATH-112 Calculus I + Calculus II

Business Core
- INFO-101 Introduction to Information Systems (Fall) 3
- MKTG-102 Principles of Marketing (Spring) 3
- ACCT-101 Financial Accounting (Fall) 3
- ACCT-102 Managerial Accounting (Spring) 3

Physical Education
- PE-XX Physical Education 0.5
- PE-XX Physical Education 0.5

Credit Total 31-33

**SECOND YEAR**

College Studies
- Science II 3-4
- SOC-2XX Social Sciences I 3
  - Arts and Culture 3
- WRTG-2XX Writing Seminar II 3

Business Core
- STAT-201 Statistics I (Fall) 3
- STAT-202 Statistics II (Spring) 3
- ECON-205 Macroeconomics 3
- ECON-206 Microeconomics 3

Major Core
- Language (II) 3
- Language (III) 3

Credit Total 30-31
### THIRD YEAR

**College Studies**

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<td>BLAW-301</td>
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<td>FINC-301</td>
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**Credit Total**

30

**Third Year Summer**

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<td>STUAB-300</td>
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### FOURTH YEAR

**College Studies**

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<td>MGMT-490</td>
<td>Business Policy and Strategy</td>
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**Secondary Major Concentration (Accounting, Finance, Management, or Marketing)**

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**Credit Total**

32-34

**DEGREE TOTAL**

124-128

Note: I.B. majors must take a combined minimum of five courses (15 credit hours) in foreign language and area studies. The division of the five courses over the two subjects is determined by the student’s language competency and need for further language studies. Students must take the highest level of language for which they are qualified. The equivalent of semester three language proficiency (Intermediate Low of the ACTFL Proficiency standard) in a second language is required prior to attempting to fulfill the study abroad requirement of the International Business major. At least one course, but not more than two, must be in area studies. Six credit hours for this component are already included in the College Studies program under “Language or Area Studies.” The area studies must be consistent with the foreign language studies chosen.
Management

Management skills are essential for every individual in every organization — from the entry-level employee in a small start-up to the vice president of a large international conglomerate — or from the program director of a local nonprofit agency to the executive director of a federal government agency. In today’s flatter, more team-centered organizations, both managers and non-managers share the responsibility for increasing productivity and achieving global competitiveness. They accomplish this through enhancing quality, increasing motivation, designing systems for worker-manager cooperation, promoting business ethics, and planning for future growth.

The Bachelor of Science in Management equips students with the skills necessary to be valuable contributors in today’s complex and demanding organizations. Their understanding of topics including total-quality management, management information systems, human resources management, international management, and organizational communication allows them to use technology and state-of-the-art approaches to problem solving and decision making. Management majors can help organizations of all sizes and types become more productive and competitive in a variety of different ways, including helping individuals and departments to work together in teams, helping manage linkages in the organizational supply chain, helping manage information flows, and helping address issues such as recruiting, hiring, and diversity.

It is highly recommended that students pursue the double-major option to further specialize in other business areas such as finance or marketing. Alternatively, through the minors program, students can broaden their expertise by combining management courses with other career areas, such as accounting, finance, fashion industry management, marketing, management information systems, international business or psychology.

Philadelphia University graduates are using management skills in a wide variety of settings: in small, mid-size, and large organizations; and in areas including retailing, banking and finance, insurance, global manufacturing and service firms, and public agencies.

FIRST YEAR

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
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<td>SCI-101 Environmental Science 3</td>
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<td>HIST-1XX Historical Understanding I 3</td>
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<tr>
<td>Quantitative Reasoning I + II 6-8</td>
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<td>MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or</td>
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<td>INFO-101 Introduction to Information Systems (Fall) 3</td>
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<tr>
<td>MKTG-102 Principles of Marketing (Spring) 3</td>
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<tr>
<td>ACCT-101 Financial Accounting (Fall) 3</td>
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<td>PE-XX Physical Education 0.5</td>
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SECOND YEAR

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<tr>
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<td>Language or Area Studies I 3</td>
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<tr>
<td>MGMT-301 Principles of Management 3</td>
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<td>STAT-201 Statistics I (Fall) 3</td>
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</tr>
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<td>STAT-202 Statistics II (Spring) 3</td>
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THIRD YEAR

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<td>MGMT-320 Human Resources Management 3</td>
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## FOURTH YEAR

### College Studies
- **COLLST-499** Contemporary Perspectives 4

### Business Core
- **MGMT-401** Operations Management 3
- **MGMT-490** Business Policy and Strategy 3

### Major Core
- **MGMT-411** Entrepreneurship (Fall) OR 3
- **MKTG-408** Survey of E-Commerce (Spring) 3
- **MGMT-412** Management Seminar 3

### Minor
- Minor* 3
- Minor* 3
- Minor* 3
- Minor* 3

### Free Electives
- Elective or Internship 3

### Credit Total
- 31

### DEGREE TOTAL
- **122-125**

*May not minor in Human Resource Management or Organizational Behavior*
Management Information Systems

The MIS major presents an introduction to technological skills associated with information management in business enterprises. It offers business and management skills that are extremely important for coordinating functional areas of business with the enterprise IT (Information Technology). The MIS major provides a powerful combination of skills, especially when coupled with a double-major or minor in another business functional area.

**FIRST YEAR**

**College Studies**

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**MATH**

MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or
MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or
MATH-111 + MATH-112 Calculus I + Calculus II

**Major Core**

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**Physical Education**

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**Credit Total** 31-33

**SECOND YEAR**

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**Business Core**

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**Major Core**

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**Credit Total** 30-31

**THIRD YEAR**

**College Studies**

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**MATH**

MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or
MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or
MATH-111 + MATH-112 Calculus I + Calculus II

**Major Core**

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**Physical Education**

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**Credit Total** 31-33

**FOURTH YEAR**

**College Studies**

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**MATH**

MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or
MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or
MATH-111 + MATH-112 Calculus I + Calculus II

**Major Core**

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**Physical Education**

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**Credit Total** 31-33

**DEGREE TOTAL** 122-125
Marketing

Marketing is the cornerstone of all successful organizations. Businesses and non-profit organizations alike must identify the domestic and international demand for goods and services, and then tailor the good or service to meet the demands of consumers. A successful marketing executive meets this challenge by drawing on a broad knowledge of economics, finance, management, social sciences, computer skills, and other disciplines that provide an understanding of consumer behavior.

Through the Bachelor of Science in Marketing, students develop skills to analyze demand and market segments, design marketing and advertising budgets and campaigns, and formulate a comprehensive marketing plan. Students will develop a conceptual understanding of the complex and changing environmental factors that affect the marketing decision-making process. At Philadelphia University, students can take a general approach to marketing, or specialize in such areas as retailing, fashion merchandising, or international business.

Graduates of the Marketing program are employed in sales, new-product development, market research, advertising, public relations, and sales management.

**FIRST YEAR**

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<td>Arts and Culture</td>
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<td>6-8</td>
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**SECOND YEAR**

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**THIRD YEAR**

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**DEGREE TOTAL 122-125**

*Advanced Marketing Elective (select one) MKTG-315, MKTG-217, MKTG-318, MKTG-324, MKTG-328, MKTG-381*
The School of Business Administration (SBA) offers a joint Bachelor of Science in Business and Master of Business Administration (B.S./M.B.A.) program to qualifying students majoring in Accounting, Fashion Merchandising, Finance, Financial Information Systems, International Business, Management Information Systems, or Marketing. Two graduate courses are taken in the fourth year of undergraduate study that count toward both the B.S. and the M.B.A. degrees. This program may also be pursued by other business majors, but these other majors do not have the capacity for as many M.B.A. courses in the fourth year of study. A similar joint B.S./M.S. in Taxation program is available.

The joint program provides a valuable option to students who might wish to further strengthen their business competencies, credentials, and marketability. Students may plan to follow this program as early as the freshman year and no later than the start of the senior year. Application should be made through Philadelphia University’s Graduate Admissions Office after consultation with the MBA Director.

Transfer students may also apply. Currently enrolled students will be considered for admission if they have maintained a 3.0 grade point average. The Graduate Management Admission Test® (GMAT®) is required for full acceptance to the program and must be taken before the end of the senior year.

Non-business majors interested in the Joint B.S./M.B.A. Program should obtain a copy of the “Pre-M.B.A. Requirements for Non-Business Majors: Planning Guide.” The planning guide should be used in combination with the University catalog and the check sheet for the student’s undergraduate major. The guide describes the requirements for admission and the application process, as well as the Pre-M.B.A. course requirements. Planning guides are available from upper-level advisors, as well as the Graduate Business Programs Office in Tuttleman 104.

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**B.S. DEGREE TOTALS**

| Credits | 122-125 |

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<td>MBA-627 Management of Information Through Technology (Fall)</td>
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<td>MBA-629 Financial Policy and Planning (Spring)</td>
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<td>MBA-630 Quantitative Methods in Decisions (Fall)</td>
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<td>MBA-632 Strategic Marketing Management (Spring)</td>
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<td>MBA-642 Strategic Planning in a Global Environment (Spring)</td>
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<td><strong>MBA-792</strong> International Business Trip (Spring)</td>
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**M.B.A. DEGREE TOTALS**

| Credits | 149-152 |

A joint B.S./M.S. Taxation program is also available.
School of Design and Media

Interim Dean: D. Kuronen
Director, Graphic Design Communication Program: D. Kuronen
Director, Industrial Design Program: G.W. Unger
Interim Director, M.S., Digital Design: S. Finch
Interim Director, M.S., Instructional Design and Technology: R. Pritchard

The School of Design and Media offers a unique environment for anyone interested in pushing the boundaries of design and media in the digital age. The School stresses in-depth exploration of individual design disciplines while encouraging interdisciplinary collaboration in a real-world environment. The School of Design and Media is a place where conceptual thinking comes first, where design excellence is a given, and where intellectual curiosity and creative expression are not simply encouraged, but are held up as our highest values. Students graduate as professionals ready to take on the challenges and reap the rewards of a creative career.

The faculty in the School of Design and Media believe that design matters. Designers shape the world through creative problem solving, innovation, and by constantly pushing the envelope of what’s possible. The School’s approach combines an excellent broad-based education that encourages critical thinking in a global context, alongside a focused concentration on our students’ chosen design disciplines. The faculty of practicing professionals, state-of-the-art facilities, study abroad opportunities, and our collaborative approach to learning all contribute to creating a unique, nurturing, exciting, and creative environment within our School. Students interested in becoming designers can choose from four professionally related degree programs:

- Four-Year Bachelor of Science in Digital Animation
- Four-Year Bachelor of Science in Digital Design
- Four-Year Bachelor of Science in Graphic Design Communication
- Four-Year Bachelor of Science in Industrial Design

Students should also note that all four majors may be taken as a joint BS/MBA program in conjunction with the School of Business Administration. Students interested in this option should consult the section on the Pre-M.B.A. Minor for Non-Business majors.

The four-year Bachelor of Science in Digital Animation prepares students to produce animation for broadcast, feature films simulations, and interactive venues such as the web, video games, and museum exhibits. Students combine their foundation in design with deeper studies of motion and timing, 2D and 3D techniques, storytelling, the history of the medium, and contemporary practices and practitioners. A project-based curriculum gives students experience with real-world scenarios while building a comprehensive portfolio. Whenever possible, students are encouraged and equipped to engage the broader community of professional animators.

The four-year Bachelor of Science in Digital Design features a strong emphasis on different modes of thinking and conceptualization as applied to the design and creation of electronic content. Interdisciplinary teaching and learning forms the backbone of this diverse and challenging degree program. Students are prepared to enter the job market with a unique set of technical skills and a sophisticated sense of multi-layered space as portrayed on a two-dimensional electronic screen.

The four-year Bachelor of Science in Graphic Design Communication prepares designers to work in the rapidly changing profession of graphic design. This program combines a strong design core with business awareness in addressing current issues of visual communication. Opportunities for concentration in marketing or specialized areas of design are offered in the context of a professionally focused academic environment.

The four-year Bachelor of Science in Industrial Design equips students to create attractive, meaningful and practical new products that serve the needs of people and those of industry. The program prepares students to respond creatively to the challenges of fast-changing cultures and global manufacturing. The strengths of the program are derived from its interdisciplinary curricular structure and faculty from many design specialties. Insights and unique collaborative project opportunities offer themselves to design students on a campus that hosts programs in related professions. Studio life is characterized by the simulation of work dynamics in design consultant studios and in corporate design departments.

Retention of Student Work
Projects completed by students in design studios and courses may be selected to become part of the University’s collection for exhibition and/or review. Student work not selected will be stored only until the end of the last day of classes.
Digital Animation

Animation has transformed the way we experience and interact with movies, television, video games, the internet, and our mobile devices. In turn, digital technology has transformed the medium of animation. The tools of production are becoming increasingly accessible and sophisticated, and the channels of distribution are multiplying to meet a swelling demand for animated content.

Philadelphia University has created the Bachelor of Science in Digital Animation to address the needs of this growing industry. The program offers students a thorough understanding of the fundamentals while introducing them to cutting-edge tools and techniques. Successful graduates of the program will be equipped to take leading creative roles in the industry.

First-year students are quickly immersed in the Philadelphia University design community, taking foundation classes with graphic designers, digital designers, fashion designers, and architects. In their second year, students begin their studies in animation with introductory courses in animation production and storytelling. They also continue to improve their design and communication skills with advanced foundation classes covering typography, hierarchy, and image-making.

One focus for third-year students is basic 3D filmmaking. Using industry standard software, students learn to design, model, and animate compelling 3D characters and environments. They also use 3D imagery as an element in their study of motion graphics, combining them with type, video, and 2D imagery to create uniquely designed visual narratives. Both areas of study are infused with a thorough understanding of the principles of animation design and regular screenings of historic and contemporary examples.

Several electives allow students to focus on an area of particular interest, including animation history, compositing, and animation for gaming and interactivity. Additionally, students are encouraged to supplement their education by taking advantage of available internships, design job fairs, study abroad opportunities, and memberships in professional organizations.

Students in their final year continue in their advanced 3D and 2D studies as they plan and implement a short film. This film, which encompasses every phase of production, serves as the capstone to their animation education. At the end of the year, students publicly exhibit their film alongside the work of their fellow design colleagues.

The Bachelor of Science in Digital Animation combines a relevant education for this evolving medium with additional studies that integrate this learning into other aspects of contemporary culture and the needs of the modern marketplace.

**FIRST YEAR**

| College Studies | WRTG-101 Writing Seminar I | 3 |
| SCI-101 Environmental Science (Fall) | 3 |
| HIST-1XX Historical Understanding I | 3 |
| Science II (Spring) | 3 |
| Quantitative Reasoning I + II | 6-8 |
| MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus |
| Major Core |  |
| DSGNFD-103 Design Foundations I (Fall) | 3 |
| DSGNFD-203 Design Foundations II (Spring) | 3 |
| DRAW-101 Drawing I | 3 |
| Credit Total | 30-32 |

**SECOND YEAR**

| College Studies | SOC-2XX Social Sciences I | 3 |
| WRTG-21X Writing Seminar II (WRTG-215 recommended) | 3 |
| Language or Area Studies I | 3 |
| Major Core |  |
| MKTG-102 Principles of Marketing | 3 |
| ANIM-201 Introduction to Animation (Fall) | 3 |
| ANIM-202 Storytelling and Storyboarding (Spring) | 3 |
| GRAPH-201 Design III for GDC (Fall) | 4 |
| GRAPH-202 Design IV for GDC (Spring) | 4 |
| INDD-324 History of Design and Communications | 3 |
| Physical Education |  |
| PE-XX Physical Education | 0.5 |
| Designated Digital Animation Elective |  |
| DRAW-201 or, DRAW-206 or, ADFND-104 | 3 |
| Credit Total | 33 |

**THIRD YEAR**

<p>| College Studies | LIT/HUMN-2XX Humanities I | 3 |
| Junior Seminar | 3 |
| Junior Seminar | 3 |
| Language or Area Studies II | 3 |
| Major Core |  |
| ANIM-301 Motion Graphics I (Fall) | 5 |
| ANIM-302 Motion Graphics II (Spring) | 3 |
| ANIM-307 3D Modeling (Fall) | 3 |
| ANIM-308 3D Animation (Spring) | 5 |
| Digital Animation Electives |  |
| Digital Animation Elective | 3 |
| Digital Animation Elective | 3 |
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<td>MKTG-315</td>
<td>Marketing in an Electronic Environment (Spring)</td>
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<td>ANIM-407</td>
<td>Advanced Topics in 3D Animation (Fall)</td>
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<td>ANIM-497</td>
<td>Interdisciplinary Capstone Preparation (Fall)</td>
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<td>ANIM-498</td>
<td>Digital Animation Capstone Project (Spring)</td>
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**Digital Animation Electives**
- Digital Animation Elective: 3
- Digital Animation Elective: 3

**Free Electives**
- Elective: 3
- Elective: 3

**Credit Total**: 32
Digital Design

The Bachelor of Science in Digital Design prepares students to work in the rapidly developing field of digital design. Digital technology is changing the way designers visualize, conceptualize and express their ideas. To succeed in the workforce, professionals will require a diverse combination of skills, including the understanding of basic design principles, the ability to harness the latest digital technologies and techniques, and experience in working in an interdisciplinary environment.

The curriculum in digital design features a foundation based on establishing the visual language and conceptual skills common to all art and design fields. In advanced courses, students develop the ability to visualize and produce work for more complex information environments. They explore aspects of time-based, interactive design, web-based media and the creation of 3D virtual spaces. Additional emphasis can be placed on motion graphics or animation techniques, including principles of effective character development and how to structure a narrative.

A particular strength of the program lies in its integration with the University’s courses in business and the liberal arts. Students study basic business practices, and how characteristics of the new technologies relate to various aspects of the networked economy.

In the first two years of study, digital design students concentrate on developing basic skills necessary for visual literacy in the modern communication landscape. Basic design, expertise in typography, skill in electronic imaging, and the principles of hierarchy in communication are all addressed.

The final four semesters include a combination of required studios designed to develop the ability to complete complex projects, with consideration of social and economic factors as they apply to communication strategies. Elective courses allow study in areas of particular interest or the opportunity to explore specific digital skills or software more extensively.

Students are encouraged to participate in our active internship program and also to experience the richness that comes with one of our many study abroad opportunities. In the final semester, digital design students are required to complete a culmination capstone course where they partner with an outside “client” to plan and produce a major project. Many of these projects have been accepted for use in actual commercial or educational enterprises.

Graduating students are required to demonstrate expertise in software manipulation, an understanding of the social implications of the emerging technologies, and an ability to produce aesthetically pleasing products that can inform and delight while serving the needs of a variety of commercial environments.

**FIRST YEAR**

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<td>SCI-101 Arts and Culture (HUMN-123 excluded)</td>
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<td>HIST-1XX Historical Understanding I</td>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG-315</td>
<td>Marketing in an Electronic Environment (Spring)</td>
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</tr>
<tr>
<td>DIGD-401</td>
<td>Digital Design III (Fall)</td>
<td>5</td>
</tr>
<tr>
<td>DIGD-499</td>
<td>Digital Design IV Interdisciplinary Capstone Project (Spring)</td>
<td>5</td>
</tr>
<tr>
<td>DIGD-403</td>
<td>Web Production (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>DIGD-406</td>
<td>Actionscript and Lingo (Spring)</td>
<td>3</td>
</tr>
<tr>
<td>DIGD-498</td>
<td>Interdisciplinary Capstone Project Preparation (Fall)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Multimedia Core**

- DIGD-307
- DIGD-310
- DIGD-312
- DIGD-405
- DIGD-415
- GRAPH-341

**Free Electives**

- Elective 3

**Credit Total**

- 34

**DEGREE TOTAL**

- 131-134
The Bachelor of Science in Graphic Design Communication prepares designers to work in the rapidly changing and increasingly global profession of graphic design. By combining a strong design core and a vigorous College Studies program with a business awareness segment, this program addresses the issues of visual communications, cultural understanding and today’s market-driven economy.

First-year design courses stress the visual language and conceptual exploration common to all art and design fields as the essential foundation for more advanced work in graphic design. The next three semesters continue this exploration by using the computer as a design and production tool combined with more traditional methods. Students develop a visual vocabulary of typography, symbols and cultural imagery while studying the ethical, historical and business side of this exciting profession.

The final three semesters require students to concentrate on utilizing their skills in research, design development and execution in solving “real-life” assignments in preparation for the culmination project in Graphic Design Communication. The final capstone course prepares students to enter the professional world.

By the beginning of the third year, students choose a concentration allowing them to strengthen their design studies with studio electives or to enhance them with business/marketing electives to prepare them to work closely with professionals in that area.

Design concentration electives can be used to broaden one’s general design experience or to specialize in a particular area of graphic design such as in the architecture, interior design, fashion or textile fields. Students should plan their concentrations with the assistance of their academic advisors.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG-101 Writing Seminar I 3</td>
</tr>
<tr>
<td>SCI-101 Environmental Science 3</td>
</tr>
<tr>
<td>HIST-1XX Historical Understanding I 3</td>
</tr>
</tbody>
</table>

Quantitative Reasoning I + II 6-8

MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus II

Major Core

DSGNFND-103 Design Foundations I (Fall) 3
DSGNFND-203 Design Foundations II (Spring) 3
DRAW-101 Drawing I (Fall) 3
DRAW-201 Drawing II/ Graphic Design (Spring) 3
ARTH-101 or ARTH-102 History of Western Art I or II 3

Physical Education

PE-XX Physical Education 0.5

Credit Total 31-33

**SECOND YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
</tr>
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<tbody>
<tr>
<td>SOC-2XX Social Sciences I 3</td>
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<tr>
<td>Language or Area Studies I 3</td>
</tr>
<tr>
<td>Science II 3-4</td>
</tr>
<tr>
<td>WRTG-2XX Writing Seminar II (WRTG-215 recommended) 3</td>
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Major Core

GRAPH-201 Design III for GDC (Fall) 4
GRAPH-202 Design IV for GDC (Spring) 4
INDD-324 History of Design & Communications 3

Business Core

INFO-101 Introduction to Information Systems 3
MKTG-102 Principles of Marketing 3
ACCT-101 Financial Accounting 3

Credit Total 32-33

**THIRD YEAR**

<table>
<thead>
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<th>College Studies</th>
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<tbody>
<tr>
<td>LIT/HUMN-2XX Humanities I 3</td>
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<tr>
<td>Junior Seminar 3</td>
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<td>Language or Area Studies II 3</td>
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</table>

Major Core

GRAPH-301 Design V for GDC (Fall) 4
GRAPH-302 Design VI for GDC (Spring) 4

Business Core

MKTG-207 Consumer Behavior 3
MKTG-310 Marketing Communications 3

Concentration Option

Concentration Option* 3-4
Concentration Option* 3-4

Credit Total 32-34

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
</tr>
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<tbody>
<tr>
<td>LIT/HUMN-2XX Humanities I (HUMN-123 excluded) 3</td>
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<tr>
<td>COLLST-499 Contemporary Perspectives 4</td>
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</table>

Major Core

GRAPH-401 Design VII for GDC (Fall) 6
GRAPH-499 Capstone in GDC (Spring) 6

Concentration Option

Concentration Option* 3
Concentration Option* 3

Free Electives

Elective or Internship 3
Elective or Internship 3

Credit Total 31

**DEGREE TOTAL** 126-131
Concentration Option* (Select one, four-course option)

(1) Design Option (grade of “C” (2.00) or better earned in GRAPH-202)
   GRAPH-204 (required)
   plus three from any combination of the following:
   (Graphic Design) PHOTO-301, GRAPH-310, GRAPH-407, GRAPH-408, GRAPH-320, GRAPH-305, GRAPH-341, GRAPH-381, G933
   (Fashion) FASHDRW-207, FASHDRW-317, FASHDES-316, FASHDRW-319, FASHDES-433, ARTH-314
   (Print) GRAPH-341, PRINT-303, PRINT-315, PRINT-301, TEXT-381

(2) Business and Marketing Option
   BLAW-301, ECON-206 (required)
   plus two of the following:
   MGMT-301, MKTG-217, MKTG-324, ACCT-102, FINC-308, ECON-205
Industrial Design

Industrial designers conceive and develop ideas for products and systems that are useful, desirable and meaningful. Good design generates business; therefore, design services are in demand with product manufacturers and other clients. During the design process the designer synthesizes marketing, aesthetics, engineering, safety, manufacturing and environmental issues to the mutual benefit of the client and the user. To this end, the industrial designer works with interdisciplinary development teams, in which it is the designer’s specific concern to give shape to the quality and culture of a person’s interaction with products.

The curriculum places strong emphasis on critical thinking. Knowledge of ergonomics, of basic materials, communication skills, computer skills and the technology of production is taught, as it is essential knowledge to the practicing design professional. The interdisciplinary structure of the Industrial Design program exposes students to ideas and methods in other design majors. Other departments on campus act as project clients or design-team resources to simulate the reality students will encounter in their careers. Frequently projects are carried out in collaboration with industry clients in the same manner that this would be done by design professionals.

In their junior year, students enter a design-studio environment in which they can witness the various design tools, design processes and their outcomes. Beyond the achievement of fundamental design competencies, students are encouraged to define the profession as it relates to them and to choose those design tools and processes that best realize their interests and potential.

The Industrial Design program is accredited by the National Association of Schools of Art and Design (NASAD). NASAD was established in 1944 to improve the educational practices and maintain high professional standards in art and design education.

FIRST YEAR

College Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WRTG-101</td>
<td>Writing Seminar I</td>
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<td>SCI-101</td>
<td>Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>HIST-1XX</td>
<td>Historical Understanding I</td>
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<tr>
<td>Quantitative Reasoning I + II</td>
<td>6-8</td>
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</tr>
<tr>
<td>MATH-100/101 + MATH-103</td>
<td>Finite Math + Introduction to Calculus</td>
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</tr>
<tr>
<td>MATH-102 + MATH-103</td>
<td>Pre-Calculus + Introduction to Calculus</td>
<td>4</td>
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<tr>
<td>MATH-102 + MATH-111</td>
<td>Pre-Calculus + Calculus I or Calculus I</td>
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<tr>
<td>MATH-111 + MATH-112</td>
<td>Calculus I + Calculus II</td>
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Major Core

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>INDD-101</td>
<td>Design I (Fall)</td>
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<tr>
<td>INDD-102</td>
<td>Design II (Spring)</td>
<td>4</td>
</tr>
<tr>
<td>INDD-106 or INDD-207</td>
<td>Materials and Process</td>
<td>3</td>
</tr>
<tr>
<td>DRAW-101</td>
<td>Drawing I (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>DRAW-201</td>
<td>Drawing II/ Graphic Design (Spring)</td>
<td>3</td>
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</tbody>
</table>

SECOND YEAR

College Studies

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS-101</td>
<td>Science II: General Physics</td>
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<tr>
<td>SOC-2XX</td>
<td>Social Sciences I</td>
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<tr>
<td>WRTG-2XX</td>
<td>Writing Seminar II (WRTG-215 recommended)</td>
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<tr>
<td>Language or Area Studies I</td>
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Major Core

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>INDD-201</td>
<td>Design III for Industrial Design (Fall)</td>
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<tr>
<td>INDD-202</td>
<td>Design IV for Industrial Design (Spring)</td>
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<tr>
<td>INDD-106 or INDD-207</td>
<td>Materials &amp; Process</td>
<td>3</td>
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<tr>
<td>CAD-206 or INDD-210</td>
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<tr>
<td>INDD-205</td>
<td>Rendering for Industrial Design</td>
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<tr>
<td>ARTH-101</td>
<td>History of Western Art I</td>
<td>3</td>
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Physical Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PE-XX</td>
<td>Physical Education</td>
<td>0.5</td>
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</tbody>
</table>

Credit Total 32.5

At the end of the sophomore year students will undergo a rigorous review of their portfolios. Students will be required to demonstrate an understanding of fundamental design principles, must effectively apply required knowledge in the design process and they must demonstrate competence in basic communication, documentation, mechanical drawing and freehand drawing skills.

Before entering the junior year, students should carefully consider how they will use the electives in the curriculum. At this time a summer internship is a useful experience. To secure an internship a good portfolio must be prepared. The search for a position should start before the beginning of April.

THIRD YEAR

College Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LIT/HUMN-2XX</td>
<td>Humanities I</td>
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<tr>
<td>Junior Seminar</td>
<td>Language or Area Studies II</td>
<td>3</td>
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Major Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CAD-206 or INDD-210</td>
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<tr>
<td>INDD-301</td>
<td>Design V for Industrial Design (Fall)</td>
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<td>INDD-302</td>
<td>Design VI for Industrial Design (Spring)</td>
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<tr>
<td>INDD-324</td>
<td>Hist. of Des. &amp; Commun. (Fall preferred)</td>
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</table>
ARTh-102  History of Western Art II  3  
INDD-304  Design History and Theory  3  
Free Elective  
Elective  3  
Elective  3  
Credit Total  34  

At this time a summer internship (ARCHDSN-494) is a useful experience. To secure an internship a good portfolio must be prepared. The search for a position should start before the beginning of April.  

**FOURTH YEAR**  
College Studies  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Junior Seminar</td>
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<tr>
<td>COLLST-499</td>
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Major Core  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>INDD-401  Design VII for Industrial Design (Fall)</td>
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<tr>
<td>INDD-402  Design VIII for Industrial Design (Spring)</td>
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<tr>
<td>INDD-493  Professional Practice I (Fall)</td>
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<td>INDD-494  Professional Practice II (Spring)</td>
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Free Elective  
Elective  3  
Elective  3  
Credit Total  31  

**DEGREE TOTAL**  
130-132  

School of Engineering and Textiles

Dean: D.S. Brookstein
Assistant Dean: M.S. Oravetz
Director, M.S., Ph.D. Programs, Textiles: B. George
Director, Grundy Testing Laboratory: H.J. Barndt
Director, Fashion Design Program: C. Prezio-Henry

Program Coordinators:
- Engineering Programs: F. Tovia (ISE), M. Govindaraj (ME), C. Pastore (AE)
- Fashion Industry Management: J.A. Rosenau
- Foundation Drawing and Design: S. Fineman
- Textile Design: M. Goutmann
- Textile Engineering Technology: J.L. Brady


From engineering to fashion and textile design to fashion industry management, Philadelphia University’s School of Engineering and Textiles has been a national and international leader in educating professionals for a wide range of industries since our founding in 1884. Originally focused on the textile and apparel industry, the scope now includes a wide range of engineering disciplines. Our cutting-edge B.S. in Engineering program has specialty study opportunities in architectural, environmental, mechanical, industrial and textile engineering. Industrial and Systems Engineering provides the specific knowledge associated with modern industrial and systems engineering practice through exposure to principles, tools and methods utilized in manufacturing systems, operations research, engineering statistics, information systems, human factors and methods analysis.

Mechanical engineering is one of the largest, broadest, and oldest engineering disciplines. Mechanical engineers use the principles of energy, materials, and mechanics to design and manufacture machines and devices of all types. They create the processes and systems that drive technology and industry. Architectural engineers apply engineering principles to the construction, planning, and design of buildings and other structures. They often work with other engineers and with architects, who focus on function layout or aesthetics of building projects.

Students who choose either fashion design or textile design study with world-class faculty in state-of-the-art studios and laboratories. Fashion industry management students prepare themselves to be leaders in the global apparel industry. The recently modified B.S. in Textile Engineering Technology provides an extensive education in all of the technology and management aspects of the global textile industry.

The School of Engineering and Textiles Bachelor of Science degree programs are:
- Architectural Engineering
- Industrial and Systems Engineering
- Mechanical Engineering
- Textile Engineering Technology
- Engineering**
- Fashion Design
- Fashion Industry Management
- Textile Design
- Joint B.S./M.S. Textile Design
- Joint B.S. Textile Engineering Technology/M.B.A.

** With minor concentrations in either architectural, environmental, industrial, mechanical or textile engineering.

Retention of Student Work
Projects completed by students in studio, laboratory, or engineering courses may be selected to become part of the University’s collection for purposes of exhibition review or accreditation. Student work not selected for that purpose will ordinarily be stored for only 30 days into the following semester.
The mission of the B.S. in Engineering program is to develop in students the necessary knowledge and analytical skills for professional engineering practice or successful graduate studies. Our offerings include traditional discipline specific fields of study including architectural engineering, industrial and systems engineering and mechanical engineering. In addition a more general field of engineering study is offered because of its general nature, it is characterized by breadth and permits study in depth of a minor field such as mechanical engineering, architectural engineering, environmental engineering, industrial and systems engineering or textile engineering. Students choose their minor engineering track in their sophomore year. This engineering major provides for flexibility to address the unknown technical challenges that will confront society.

Engineers apply the principles of mathematics and the laws of natural science to analyze, design, develop and devise improvements that benefit humanity. The engineering program consists of a course of study in mathematics, science, liberal arts, business and engineering during the four years of undergraduate study. Students will have the flexibility to choose their specific engineering program after their first year of study. The B.S. in Engineering Program at Philadelphia University incorporates all of the contemporary thinking related to engineering education that has been studied in the National Academy of Engineering publication “The Engineer of 2020 – Visions of Engineering in the New Century.”

All engineering programs at Philadelphia University have a common first two semesters enabling the student to make a choice of concentration in their sophomore year.

**FIRST YEAR (Common to all Engineering Programs)**

<table>
<thead>
<tr>
<th>College Studies</th>
<th>WRTG-101 Writing Seminar</th>
<th>HIST-11X Historical Understanding I (Spring)</th>
<th>MATH-111 Calculus I (Fall)</th>
<th>MATH-112 Calculus II (Spring)</th>
<th>CHEM-103 Chemistry I (Fall)</th>
<th>PHYS-201 Physics I (Spring)</th>
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<table>
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<tr>
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<th>ENGR-101 Introduction to Engineering (Fall)</th>
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<tr>
<td></td>
<td>ENGR-102 Engineering Drawing (Spring)</td>
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<td></td>
<td>ENGR-104 Introduction to Computers (Spring)</td>
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<table>
<thead>
<tr>
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<th>PE-XX Physical Education</th>
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<tbody>
<tr>
<td></td>
<td>PE-XX Physical Education</td>
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| Credit Total | 33 |

**SECOND YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
<th>SOC-2XX Social Science I</th>
<th>WRTG-21X Writing Seminar II</th>
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<tr>
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<table>
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<th>MATH-213 Calculus III (Fall)</th>
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<tbody>
<tr>
<td></td>
<td>MATH-225 Differential Equations (Spring)</td>
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<tr>
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<td>PHYS-203 Physics II (Fall)</td>
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<td></td>
<td>ENGR-215 Engineering Statics (Fall)</td>
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<td>ENGR-218 Engineering Dynamics (Spring)</td>
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<td></td>
<td>ENGR-305 Engineering Statistics (Spring)</td>
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| Credit Total | 32 |

**THIRD YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
<th>Humanities I</th>
<th>Junior Seminar</th>
<th>ENGLISH-2XX English I</th>
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<table>
<thead>
<tr>
<th>Major Core</th>
<th>ENGR-301 Mechanics of Materials (Fall)</th>
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<tbody>
<tr>
<td></td>
<td>ENGR-302 Design for Manufacturability (Spring)</td>
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<td></td>
<td>ENGR-304 Operations Research I (Fall)</td>
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<tr>
<td></td>
<td>ENGR-311 Fluid Mechanics (Spring)</td>
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<td></td>
<td>ENGR-XXX Fundamentals of Electrical Engineering I (Spring)</td>
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<td>ENGR-303 Engineering Economics (Fall)</td>
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| Engineering Minor | Minor Course (Fall) | Minor Course (Spring) | 3 | 3 |

| Credit Total | 30 |

**FOURTH YEAR**

<table>
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<tr>
<th>College Studies</th>
<th>Junior Seminar</th>
<th>COLLIST-499 Contemporary Perspectives</th>
<th>ENGLISH-2XX English II</th>
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<table>
<thead>
<tr>
<th>Major Core</th>
<th>ENGR-403 Fundamentals of Electrical Engineering II (Fall)</th>
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<tr>
<td></td>
<td>ENGR-489 Senior Design Project (Spring)</td>
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<tr>
<td></td>
<td>MENG-407 Thermodynamics and Heat Transfer I (Fall)</td>
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</table>

| Engineering Minor | Engineering Minor course (Fall) | Engineering Minor course (Spring) | 3 | 3 |

| Elective | Elective | Elective | Elective | 3 | 3 | 3 |

| Credit Total | 32 |

**DEGREE TOTAL** | **127**
## Engineering Minors Tracks

### Textile Engineering

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TENG-306</td>
<td>Textile Engineering I: Linear Assemblies (Fibers and Yarns)</td>
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</tr>
<tr>
<td>TENG-308</td>
<td>Textile Engineering II: Planar Assemblies</td>
<td>3</td>
</tr>
<tr>
<td>TENG-310</td>
<td>Textile Engineering III: Nonwovens and Chemical Processing</td>
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</tr>
<tr>
<td>TENG-320</td>
<td>Textile Engineering IV: Advanced Fibrous Materials</td>
<td>3</td>
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</table>

### Industrial and Systems Engineering

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>IENGR-315</td>
<td>Operations Research II</td>
<td>3</td>
</tr>
<tr>
<td>IENGR-419</td>
<td>Production Planning and Control</td>
<td>3</td>
</tr>
<tr>
<td>IENGR-413</td>
<td>Simulation Systems</td>
<td>3</td>
</tr>
<tr>
<td>IENGR-307</td>
<td>Engineering Statistics</td>
<td>3</td>
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### Mechanical Engineering

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>MENG-301</td>
<td>Machine Design</td>
<td>3</td>
</tr>
<tr>
<td>MENG-428</td>
<td>Thermodynamics and Heat Transfer II</td>
<td>3</td>
</tr>
<tr>
<td>MENG-427</td>
<td>Automatic Control Theory</td>
<td>3</td>
</tr>
<tr>
<td>ENGR-210</td>
<td>Introduction to Material Science</td>
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### Architectural Engineering

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>ARCHDSN-210</td>
<td>Building Technology I (Construction)</td>
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<tr>
<td>ARCH-211</td>
<td>Building Technology II (Sustainability)</td>
<td>3</td>
</tr>
<tr>
<td>ARCH-403</td>
<td>Lighting &amp; Acoustics</td>
<td>3</td>
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<tr>
<td>ARCH-404</td>
<td>Dynamic Systems</td>
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### Environmental Engineering

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<tbody>
<tr>
<td>CHEM-104</td>
<td>Chemistry II</td>
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<tr>
<td>EENGR-412</td>
<td>Modeling Pollutant Fate and Assessing Risk</td>
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<tr>
<td>ENGR-341</td>
<td>Organic Process Chemistry</td>
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<tr>
<td>CHEM-417</td>
<td>Environmental Chemistry</td>
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</table>
Architectural Engineering (AE)

Architectural engineers apply engineering principles to the construction, planning, and design of buildings and other structures. They often work with other engineers and with architects who focus on functional layout or aesthetics of building projects. Architectural Engineering often encompasses elements of other engineering disciplines, including materials, mechanical, electrical, fire protection, and others. Architectural engineers are responsible for the different systems within a building, structure, or complex.

Architectural engineering students from Philadelphia University will be able to apply the principles of mathematics and the laws of natural science to analyze, design, develop and devise improvements that benefit humanity. The curriculum is designed to achieve a balance between science, engineering, and the liberal arts to provide an understanding of the economic and social implications of engineering activity and to develop creative talents. Our program emphasizes the key components of structures and construction/construction management aspects of the field with an emphasis on the role of sustainable design throughout the program.

FIRST YEAR (Common to all Engineering Programs)

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
<td>WRTG-101</td>
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<tr>
<td>HIST-11X</td>
<td>Historical Understanding I (Spring) 3</td>
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<td>MATH-111</td>
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<td>MATH-112</td>
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<td>Chemistry I (Fall) 4</td>
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<td>ENGR-102</td>
<td>Engineering Drawing (Spring) 3</td>
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<td>Introduction to Computers (Spring) 3</td>
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SECOND YEAR

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<td>MATH-213</td>
<td>Calculus III (Fall) 4</td>
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<td>PHYS-203</td>
<td>Physics II (Fall) 4</td>
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<tr>
<td>MATH-225</td>
<td>Differential Equations (Spring) 3</td>
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<tr>
<td>ARCHDNS-210</td>
<td>Architectural Engineering Design (Fall) 4</td>
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<td>ENGR-215</td>
<td>Engineering Statics (Spring) 3</td>
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<tr>
<td>ARCH-211</td>
<td>Technology II: Systems &amp; Sustainability (Spring) 3</td>
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THIRD YEAR

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<td>Junior Seminar</td>
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<tr>
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<td>ENGR-301</td>
<td>Mechanics of Materials (Fall) 3</td>
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<td>ENGR-XXX</td>
<td>Structural Analysis I (Fall) 3</td>
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<td>ARCH-427</td>
<td>Construction Management (Fall) 3</td>
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<td>AHIST-XXX</td>
<td>Great Buildings (Fall) 3</td>
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<td>ENGR-218</td>
<td>Engineering Dynamics (Spring) 3</td>
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<td>ENGR-305</td>
<td>Engineering Statistics (Spring) 3</td>
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<td>ENGR XXX</td>
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FOURTH YEAR

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<td>COLLST-499</td>
<td>Contemporary Perspectives 4</td>
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<td>Structural Design: Tensile (Fall) 3</td>
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<td>ENGR-303</td>
<td>Engineering Economics (Fall) 3</td>
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<td>MENG-407</td>
<td>Thermodynamics and Heat Transfer I (Fall) 3</td>
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<td>ARCH-414</td>
<td>Experimental Materials (Fall) 3</td>
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<td>ENGR-322</td>
<td>Fund. Of Electrical Engineering I (Spring) 3</td>
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<td>ENGR-311</td>
<td>Fluid Mechanics (Spring) 3</td>
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<td>ARCH-413</td>
<td>Experimental Structures (Spring) 3</td>
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<td>ENGR-489</td>
<td>Senior Design Project: Architectural Engineering (Spring) 4</td>
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DEGREE TOTAL 128
Industrial and Systems Engineering (ISE)

Industrial and systems engineering (ISE) is about choices. Other engineering disciplines apply skills to very specific areas. ISE provides the opportunity to work in a variety of businesses. The most distinctive aspect of industrial and systems engineering is the flexibility that it offers.

As companies adopt management philosophies of continuous productivity and quality improvement to survive in the increasingly competitive world market, the need for industrial and systems engineers is growing. Industrial and systems engineers are the only engineering professionals trained as productivity and quality improvement specialists.

Industrial and systems engineers discover how to do things better. They engineer processes and systems that improve quality and productivity. They work to eliminate waste of time, money, materials, energy and other commodities.

“Industrial and systems engineer” is synonymous with systems integrator—a big-picture thinker. It is a professional who takes what exists today and conceptualizes what should exist in the future. Many times, engineers become disillusioned with the engineering profession because they get involved in minutiae or work on a CAD machine all the time; they never spend time in the factory or operating environment. That is not the work environment of an industrial engineer. ISEs spend most of their time in the real operating environment, devising scientific approaches to problems.

Many people are misled by the term “industrial and systems engineer.” “Industrial” does not refer to just manufacturing. It encompasses service industries as well. It has long been known that industrial engineers have the technical training to make improvements in a manufacturing setting. Now, it is becoming increasingly recognized that these same techniques can be used to evaluate and improve productivity and quality in service industries.

FIRST YEAR (Common to all Engineering Programs)

<table>
<thead>
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<tbody>
<tr>
<td>WRTG-101 Writing Seminar</td>
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<tr>
<td>HIST-11X Historical Understanding I (Spring)</td>
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<td>MATH-111 Calculus I (Fall)</td>
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<td>CHEM-103 Chemistry I (Fall)</td>
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<td>PHYS-201 Physics I (Spring)</td>
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Major Core

| ENGR-101 Introduction to Engineering (Fall) | 1 |
| ENGR-102 Engineering Drawing (Spring) | 3 |
| ENGR-104 Introduction to Computers (Spring) | 3 |

Physical Education

| PE-XX Physical Education | .5 |
| PE-XX Physical Education | .5 |

Credit Total 33

SECOND YEAR

<table>
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<tbody>
<tr>
<td>SOC-2XX Social Science I</td>
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<tr>
<td>WRTG-21X Writing Seminar II</td>
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<td>Language or Area Studies I</td>
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Math and Science

| MATH-213 Calculus III (Fall) | 4 |
| MATH-225 Differential Equations (Spring) | 3 |
| MATH-214 Linear Algebra (Spring) | 3 |
| PHYS-203 Physics II (Fall) | 4 |

Engineering

| ENGR-215 Engineering Statics (Fall) | 3 |
| ENGR-218 Engineering Dynamics (Spring) | 3 |
| ENGR-305 Engineering Statistics (Spring) | 3 |

Credit Total 32

THIRD YEAR

<table>
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<th>College Studies</th>
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<tbody>
<tr>
<td>Humanities I</td>
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<td>Language or Area Studies</td>
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<td>Junior Seminar</td>
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Engineering Courses

| ENGR-301 Mechanics of Materials (Fall) | 3 |
| ENGR-302 Design for Manufacturability (Spring) | 3 |
| ENGR-322 Fundamentals of Electrical Eng. I (Spring) | 3 |

ISE Courses

| ENGR-303 Engineering Economics (Fall) | 3 |
| ENGR-304 Operations Research I (Fall) | 3 |
| ENGR-307 Engineering Statistics II (Fall) | 3 |
| IENGR-315 Operations Research II (Spring) | 3 |

Credit Total 30

FOURTH YEAR

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
<td>COLLAST-499 Contemporary Perspectives</td>
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ISE Courses

| IENGR-413 Simulation Systems (Fall) | 3 |
| IENGR-427 Facility Planning & Material Handling (Fall) | 3 |
| IENGR-### Systems Engineering (Fall) | 3 |
| IENGR-419 Production Planning and Control (Fall) | 3 |
| IENGR-414 Manufacturing Quality Control (Spring) | 3 |
| IENGR-488 Senior Design Project: ISE (Spring) | 4 |
| Designated Elective I (Spring) | 3 |
| Designated Elective II (Spring) | 3 |

Designated Electives (select two from the following):

| IENGR-328 Processes Engineering (Fall) | 3 |
| ENGR-426 Supply Chain Modeling & Analysis (Spring) | 3 |
| ENGR-217 Information Systems Design (Spring) | 3 |
| IENGR-417 Human Factors Engineering (Spring) | 3 |

Credit Total 32

DEGREE TOTAL 128
Mechanical engineering plays a dominant role in enhancing safety, economic vitality, enjoyment and overall quality of life throughout the world. Mechanical engineers are concerned with the principles of force, energy and motion. The men and women who work as mechanical engineers are professionals with expert knowledge of the design and manufacture of mechanical systems and thermal devices and processes. Some examples of products and processes developed by mechanical engineers include engines and control systems for automobiles and aircraft, electric power generation plants, lifesaving medical devices and consumer products ranging from air conditioners to personal computers and athletic equipment. They also design the machines that mass-produce these products. Virtually every aspect of life is touched by mechanical engineering. If something moves or uses energy, a mechanical engineer was probably involved in its design.

**FIRST YEAR (Common to all Engineering Programs)**

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<td>WRTG-101 Writing Seminar</td>
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<td>CHEM-103 Chemistry I (Fall)</td>
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<tr>
<td>PHYS-201 Physics I (Spring)</td>
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</table>

**Major Core**

| ENGR-101 Introduction to Engineering (Fall) | 1 |
| ENGR-102 Engineering Drawing (Spring) | 3 |
| ENGR-104 Introduction to Computers (Spring) | 3 |

**Physical Education**

| PE-XX Physical Education | 0.5 |
| PE-XX Physical Education | 0.5 |

**Credit Total**

| 33 |

**SECOND YEAR**

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<thead>
<tr>
<th>College Studies Courses</th>
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<tbody>
<tr>
<td>SOC-2XX Social Sciences I</td>
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<tr>
<td>WRTG-21X Writing / Communication Seminar II</td>
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**Language or Area Studies I**

| Language or Area Studies I | 3 |
| Junior Seminar | 3 |

**Major Courses**

**Math and Science**

| MATH-213 Calculus III (Fall) | 4 |
| PHYS-203 Physics II (Fall) | 4 |
| MATH-225 Differential Equations (Spring) | 3 |

**Engineering**

| ENGR-215 Engineering Statics (Fall) | 3 |
| ENGR-218 Engineering Dynamics (Spring) | 3 |
| ENGR-210 Intro Material Science (Spring) | 3 |
| ENGR-305 Engineering Statistics (Spring) | 3 |

**Credit Total**

| 32 |

**THIRD YEAR**

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<th>College Studies Courses</th>
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<td>Language or Area Studies I</td>
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<td>Junior Seminar</td>
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**Major Courses**

| ENGR-324 Machine Design (Fall) | 3 |
| ENGR-301 Mechanics of Materials (Fall) | 3 |
| ENGR-XXX Engineering Vibrations (Fall) | 3 |
| Spring Semester: |
| ENGR-302 Design for Manufacturability (Spring) | 3 |
| ENGR-322 Fundamentals of Electrical Engineering I (Spring) | 3 |
| ENGR-311 Fluid Mechanics (Spring) | 3 |
| Designated ME Elective | 3 |
| ENGR-414, ARCHDSN-210, TENGR-306 |

**Credit Total**

| 30 |

**FOURTH YEAR**

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<tr>
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<tr>
<td>COLLST-499 Contemporary Perspectives</td>
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**Major Courses**

| ENGR-407 Thermodynamics & Heat Transfer I (Fall) | 3 |
| ENGR-403 Fundamentals of Electrical Engineering II (Fall) | 3 |
| INDD-106 Materials & Processes: Shop Techniques (Fall) | 3 |
| ENGR-303 Engineering Economics (Fall) | 3 |
| ENGR-489 Senior Design Project Engineering (Spring) | 4 |
| INDD-207 Materials & Processes: Manufacturing (Spring) | 3 |
| MENG-428 Thermodynamics & Heat Transfer II (Spring) | 3 |
| System Dynamics and Control (Spring) | 3 |

**Credit Total**

| 32 |

**Degree Credits**

| 128 |
Fashion Design

The world of fashion is fast-paced, energetic, creative and exciting. Innovative designers who know the potential of the materials they use in the contemporary marketplace have a dynamic impact on the retail industry.

The Bachelor of Science in Fashion Design includes art and design foundation courses, specialized fashion courses and studies in merchandising management, giving students a strong foundation in both design and business.

Future designers begin at our University with traditional studies of line and form. Our proven curriculum in apparel management and production includes hands-on experience with the latest computerized design and production equipment. In addition, our unique understanding of textile materials makes this program one of the best in the country.

Fashion Design students have an opportunity to add an international dimension to their education by participating in the Study Abroad Program during their third year of study. Students studying overseas gain a cross-cultural experience while broadening their design skills, enabling them to strengthen their competitive edge in the global marketplace. Students can also choose to participate in the Internship Program designed to enrich their education while gaining work experience.

Fashion Design graduates may begin as fashion design assistants, working under the supervision of a designer; or work as a fashion adapter, altering trend-setting designs to fit the need of the average customer. Some designers start their own firms, working with production houses and retailers to produce and distribute under their own label.

**FIRST YEAR**

<table>
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<tr>
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<td>ARTH-101 Arts and Culture: History of Western Art I</td>
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<td>Quantitative Reasoning I + II</td>
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<td>MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus II</td>
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<td>DRAW-206 Drawing II (Spring)</td>
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<td>WRTG-21X Writing Seminar II (WRTG-215 recommended)</td>
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<td>FASHDES-211 Garment Structures (Fall)</td>
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<td>FASHDES-213 Flat Pattern and Construction (Spring)</td>
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<td>CAD-204 CAD for Fashion Design (Spring)</td>
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<tr>
<td>FASHDES-322 Fashion Design Problem Solving (Spring)</td>
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<td>ARTH-314 History of Textiles and Costumes (Fall)</td>
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<td>FASHDES-311 Draping and Construction (Fall)</td>
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<td>FASHDES-316 Fashion Design (Fall)</td>
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<td>FASHDES-335 Advanced Patternmaking (Spring)</td>
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**FOURTH YEAR**

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<tbody>
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<td>TEXT-331 Apparel Fabric Performance (Fall)</td>
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<tr>
<td>TEXT-411 Seminar: Textile/Apparel Industry Issues</td>
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<td>FASHMGT-406 Apparel Merchandising Management (Spring)</td>
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<tr>
<td>FASHDES-415 Collection Development I (Fall)</td>
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<td>FASHDES-416 Collection Development II (Spring)</td>
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**DEGREE TOTAL** **125-127**
The billion-dollar fashion and apparel industry needs bright, talented executives to guide the rapid pace of today's technological revolution. Skilled managers are required to deal with an increasingly complex variety of products and manufacturing techniques and tasks, such as planning product lines months before they will appear in the stores. Once developed, new products must be sourced globally and then delivered to the consumer within a very short period of time.

The Bachelor of Science in Fashion Industry Management is uniquely designed to educate this type of executive. The curriculum combines the fundamentals of business, including accounting, economics, marketing, finance and management, with textile and apparel courses. Students learn the process of apparel design and manufacture from fiber to final apparel product, and become familiar with the application of computers in information retrieval, integrated apparel manufacture and design. Graduates earn the respect of employers who are familiar with the University's expertise in fashion industry management. The program is one of a select few endorsed by the American Apparel and Footwear Association.

**FIRST YEAR**

**College Studies**
- WRTG-101 Writing Seminar I 3
- Science I 3
- Arts and Culture 3
- HIST-11X Historical Understanding I 3

**Quantitative Reasoning I + II** 6-8

**MATH-100/101 + MATH-103** Finite Math + Introduction to Calculus or
**MATH-102 + MATH-103** Pre-Calculus + Introduction to Calculus or
**MATH-102 + MATH-111** Pre-Calculus + Calculus I or
**MATH-111 + MATH-112** Calculus I + Calculus II

**Business Core**
- MKTG-102 Principles of Marketing 3
- ECON-205 Macroeconomics (Spring) 3
- ECON-206 Microeconomics (Fall) 3

**Apparel/Textile Core**
- TEXT-101 Survey of the Textile Industry 3

**Physical Education**
- PE-XX Physical Education 0.5
- PE-XX Physical Education 0.5

**Credit Total** 31-33

**SECOND YEAR**

**College Studies**
- CHEM-101 Science II: General Chemistry 3
- SOC-21X Social Sciences I 3
- WRTG-211 Writing Seminar II (L611 recommended) 3

**Business Core**
- STAT-201 Statistics I 3
- ACCT-101 Financial Accounting (Fall) 3
- ACCT-102 Managerial Accounting (Spring) 3

**Apparel/Textile Core**
- TEXT-201 Textile Production I (Spring) 3
- TEXT-317 Survey of the Global Apparel Industry 3
- FASHMGT-201 Garment Development *(Spring) 3

**Credit Total** 30

**THIRD YEAR**

**College Studies**
- Humanities I 3
- Junior Seminar 3
- Language or Area Studies II 3

**Business Core**
- MGMT-301 Principles of Management 3
- MKTG-217 Retailing Strategy and Structure 3

**Apparel/Textile Core**
- TEXT-301 Textile Production II (Fall) 3
- FASHMGT-305 Apparel Production 4
- FASHMGT-317 Apparel/Textile Quality Assessment (Spring) 3

**Designated Electives**
- Designated Elective ** 3
- Designated Elective ** 3

**Credit Total** 31

**FOURTH YEAR**

**College Studies**
- Junior Seminar 3
- COLLST-499 Contemporary Perspectives 4

**Business Core**
- FASHMGT-451 Apparel/Textile Supply Chain Management (Spring) 4

**Apparel/Textile Core**
- TEXT-411 Seminar: Textile Apparel Industry Issues 1
- FASHMGT-499 Apparel Merchandising Management (Spring) 3
- FASHMGT-408 Apparel/Textile Sourcing (Fall) 3
- FASHMGT-401 Apparel/Textile Quality Assurance (Fall) 3
- TEXT-437 Integrated Manufacturing Technology 3

**Designated Electives**
- Designated Elective ** 3

**Free Electives**
- Elective 3
- Elective 3

**Credit Total** 33

**DEGREE TOTAL** 125-127

*FASHDES-211, Garment Structures, instead, if planning FASHDES-213, Flat Pattern and Basic Construction, as an elective.


Elective graduate courses with approval of Graduate Program Coordinator (GPA requirements).
Textile Design

The Bachelor of Science degree in Textile Design combines artistic skills with technical knowledge to prepare students for creative careers. Using state-of-the-art computer aided design systems; students learn to create designs for woven, knit and print applications. These designs are translated to actual fabric via extensive equipment including handlooms, knitting machines, flat silk screen and digital printing facilities and power knitting and weaving equipment. Internship opportunities, industry competitions, field trips and study abroad broaden the designer’s scope and help each individual to crystallize his/her own career path. The Design Center at Philadelphia University provides a wealth of on-campus design research resources.

All Textile Design majors are required to participate in the Benchmarks Toward Graduation process that includes freshman and junior portfolio reviews and the senior show. These presentations assist in the preparation of a portfolio and prepare the student for his/her chosen profession.

FIRST YEAR

College Studies

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<th>Course Title</th>
<th>Credits</th>
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</tr>
<tr>
<td>Science I</td>
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<td>HIST-11X</td>
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Design Core

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<td>Design Foundations I (Fall)</td>
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<td>DSGNFND-203</td>
<td>Design Foundations II (Spring)</td>
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<td>DRAW-101</td>
<td>Drawing I</td>
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Textile Core

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<td>TEXT-101</td>
<td>Survey of Textiles (Fall)</td>
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<td>Yarn (Spring)</td>
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Physical Education

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Credit Total: 32-34

SECOND YEAR

College Studies

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<td>Arts and Culture: History of Western Art I or II</td>
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<td>SOC-2XX</td>
<td>Social Sciences I</td>
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<td>WRTG-21X</td>
<td>Writing Seminar II</td>
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<td>Science II: General Chemistry</td>
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Design Core

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<tr>
<td>CAD-201</td>
<td>Computer-Aided Design</td>
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<tr>
<td>DSGNFND-303</td>
<td>Design Foundations III</td>
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THIRD YEAR

College Studies

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<tr>
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<td>Arts and Culture: History of Western Art II</td>
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<td>Science II: General Chemistry</td>
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Textile Core

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<tr>
<td>WEAV-301</td>
<td>Weaving II</td>
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<td>KNIT-205</td>
<td>Knitting II</td>
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<tr>
<td>TEXT-411</td>
<td>Seminar: Textile/Apparel Industry Issues</td>
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Major Core

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<tbody>
<tr>
<td>WEAV-207 or KNIT-203</td>
<td>(Weave or Knit) Design Studio I</td>
<td>3</td>
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<tr>
<td>PRINT-303</td>
<td>Print Design I</td>
<td>3</td>
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<tr>
<td>PRINT-301 or PRINT-305</td>
<td>Printing I or Textile Printing Technology</td>
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<tr>
<td>ARTH-314</td>
<td>History of Textiles and Costumes</td>
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Credit Total: 33

FOURTH YEAR

College Studies

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<td>COLSST-499</td>
<td>Contemporary Perspectives</td>
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Textile Core

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<td>TEXTCHM-242</td>
<td>Dyeing &amp; Finishing</td>
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<td>TEXT-307</td>
<td>Textile Materials</td>
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Major Core

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<tbody>
<tr>
<td>TEXT-391</td>
<td>Textile Design Research</td>
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Designated Textile Design Electives*

Designated Textile Design Elective | 3
Designated Textile Design Elective | 3
TEXT-489 Textile Design Senior Seminar | 3

Business Elective** | 3

Free Electives

Free Elective*** | 3
Free Elective | 3

Credit Total: 33-34

DEGREE TOTAL: 130-133

*Designated Textile Design Electives (select two): KNIT-213, KNIT-326, KNIT-307, WEAV-226, WEAV-307, PRINT-305 OR PRINT-301 (whichever was not used as a core requirement), PRINT-315.

**Business Elective (select one) MGMT-301, MKTG-102, TXD-665 (90 Credits and GPA of 3.0)

***Replaced by TXD-617 (if accepted into graduate program)
Textile Engineering Technology

The Bachelor of Science in Textile Engineering Technology prepares students to work in a global industry that includes fiber-engineered products for medical, geotextiles, architectural, fiber-reinforced composites, and traditional apparel and home-furnishing applications. Problem solving using the understanding of textile product and process and an understanding of the global textile/apparel business (including sourcing) are the foundation of this program. Career paths for graduates will be enhanced by selecting a concentration option from the following:

- Product Development – national /international
- Quality Assurance & Assessment
- Textile Manufacturing Management
- (Pre) Masters in Business Administration

Another dimension of the program will be to educate and graduate fully integrated individuals who possess the technical and social competence and confidence to succeed in professional practice and advanced education, be lifelong learners, and exercise responsible citizenship.

**FIRST YEAR**

**College Studies**

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<thead>
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<th>Description</th>
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<td>CHEM-101</td>
<td>General Chemistry or CHEM-103 Chemistry I 3-4</td>
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Quantitative Reasoning I + II 6-8

MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus 3
MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus II 3

**Technical Core**

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<td>ENGR-102</td>
<td>Engineering Drawing (Spring)</td>
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<td>TEXT-101</td>
<td>Survey of Textiles (Fall)</td>
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<tr>
<td>TEXT-113</td>
<td>Yarn (Spring)</td>
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<tr>
<td>FASHMGT-101</td>
<td>Survey of the Global Apparel Industry (Spring)</td>
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**Business Core**

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<th>Description</th>
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<tr>
<td>INFO-101</td>
<td>Intro to Information Systems (Fall)</td>
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**Physical Education**

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<td>PE-XX</td>
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**Credit Total** 32-35

**SECOND YEAR**

**College Studies**

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<td>SOCIAL SCIENCES</td>
<td>Language or Area Studies I</td>
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<tr>
<td>WRTG-217</td>
<td>Writing Seminar II</td>
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**Technical Core**

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<tr>
<td>TEXTCHM-242</td>
<td>Dyeing &amp; Finishing (Fall)</td>
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<td>WEAV-201</td>
<td>Weaving I (Fall)</td>
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<td>KNIT-201</td>
<td>Knitting I (Fall)</td>
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<td>KNIT-205</td>
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**Business Core**

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<tr>
<td>STAT-201</td>
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**Credit Total** 35

**THIRD YEAR**

**College Studies**

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<td>Junior Seminar</td>
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<td>Language or Area Studies II (Fall)</td>
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**Technical Core**

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<td>TEXT-307</td>
<td>Textile Materials</td>
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<tr>
<td>TEXT-321</td>
<td>Nonwovens</td>
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<td>TEXT-313</td>
<td>Textile Costing</td>
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<td>TEXT-411</td>
<td>Seminar: Textile/Apparel Industry Issues</td>
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**Textile Engineering Technology Option**

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<tr>
<th>Option</th>
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<tr>
<td>1,2,3, or 4 (Spring)</td>
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<td>3 or 4</td>
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**Business Core**

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<tr>
<td>MGMT-301</td>
<td>Principles of Management</td>
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<tr>
<td>ACCT-101</td>
<td>Financial Accounting (or MBF-504**)</td>
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**Credit Total** 32 - 35
## FOURTH YEAR

**College Studies**
- Junior Seminar 3
- Arts & Culture 3
- COLLST-499 Contemporary Perspectives 4

**Technical Core**
- TEXT-487 Senior TET Project (Spring) 4

**Textile Engineering Technology Option**
- TET Option 1,2,3,or 4 (Fall) 3 or 4
- TET Option 1,2,3,or 4 (Fall) 3 or 4

**Business Core**
- BLAW-301 Business Law (or MF03**) 3
- ECON-205 Macroeconomics 3

**Free Electives or Internship**
- Free Electives (2) (MBA-625 and MBA-628 for Pre-MBA option**) 6

**Credit Total** 32 - 34

**DEGREE TOTAL** 131-138

**Engineering Technology Options**

**Product Development (select four)**
- WEAV-226 Jacquard
- KNIT-326 Advanced Weft Knitting
- KNIT-307 Advanced Warp Knitting
- TEXT-209 Industrial Textiles
- TEXT-317 Textile Production Control
- PRINT-305 Textile Printing Technology

**Quality Assurance & Assessment (select four)**
- STAT-202 Statistics II
- TEXT-315 Interior Fabric Performance
- TEXT-316 Textile Quality Management

**International Textile Management (select four)**
- MGMT-320 Human Resource Management
- MGMT-307 International Management
- MKTG-408 Survey of E-Commerce
- ENGR-203 Engineering Economics
- TEXT-317 Textile Production Control
- FASHMGMT-408 Apparel/Textile Sourcing
  - Adv. Textile Elective (Approved By Advisor)

**Pre-MBA (must be accepted by the MBA program)**
- MGMT-401 Operations Management
- STAT-202 Statistics II
- MKTG-102 Principles of Marketing
- FINC-301 Financial Management
- MBF-503 Foundations of Economic Analysis (replaces ECON-205)
- MBF-504 Intro to Financial & Managerial Accounting (replaces ACCT-101)
- MBA-625 Management Communication & Negotiation (replaces free elective)
- MBA-628 Accounting For Management Decisions (replaces free elective)

**These courses are for the Pre-M.B.A. option**

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2007 - 2008 Undergraduate Catalog
This joint B.S./M.B.A. five-year program has been developed to prepare graduates for senior managerial positions in the textile and related industries.

The Textile Engineering Technology baccalaureate program includes a core of textile courses along with business-related courses. The M.B.A. program continues the advanced study of business and management core courses and electives, which can be taken at the graduate level in business or textiles.

Official application to the program may be made only after completion of the sophomore year and no later than the start of the senior year. Application should be made through the Office of Graduate Admissions. Transfer students may also apply. Currently enrolled students will be considered for admission if they have maintained a 3.0 G.P.A. The GMAT is required for full acceptance to the program and must be taken before the end of the senior year.

Full scheduling details for the first to fourth years are found in the B.S. Textile Engineering Technology section.

### FIRST YEAR

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### SECOND YEAR

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### THIRD YEAR

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<td>MBF-504 Financial and Managerial Accounting</td>
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<td>MBF-508 Statistical Analysis for Business Decisions</td>
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<td>MKTG-102 Principles of Marketing</td>
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### FOURTH YEAR

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<td>MBF-401 (or MBF-510) Operations Management</td>
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<td>MBF-503 Foundations of Economic Analysis</td>
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<td>MBA-625 Management Communications and Negotiations</td>
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<td>MBA-628 Accounting for Management Decisions</td>
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### FIFTH YEAR

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<tbody>
<tr>
<td>MBA-626 Global Managing in the 21st Century (Fall)</td>
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<td>MBA-627 Management of Information Through Technology (Fall)</td>
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<td>MBA-629 Financial Policy and Planning (Spring)</td>
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<td>MBA-630 Quantitative Methods in Decisions (Fall)</td>
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<td>MBA-632 Strategic Marketing Management (Spring)</td>
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<td>MBA-642 Strategic Planning in a Global Environment (Spring)</td>
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<td><strong>MBA-792 International Business Trip (Spring)</strong></td>
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**JOINT B.S./M.S. TOTAL** 158-161
Joint B.S./M.S. Textile Design

The School of Engineering and Textiles offers a five-year Bachelor of Science/Master of Science (B.S./M.S.) program to qualifying students majoring in textile design. Students follow the B.S. Textile Design program for the first three years. Graduate courses taken in the fourth year of undergraduate study are applied toward both the B.S. and M.S. degrees. The fifth year includes a summer session in addition to the fall and spring semesters.

The five-year program offers an opportunity for students wishing to further their design education through a year of graduate-level work. They are given the opportunity to work on design development on a more concentrated basis, and therefore extend their design skills and portfolio work (within their chosen undergraduate specialization) to a level not attainable through the undergraduate program.

Application should be made through the Graduate Admissions Office during the junior year. Currently enrolled students will be considered for admission if they have maintained a 3.0 GPA. The GRE is required for full acceptance to the program and must be taken before the end of the senior year.

Full scheduling details for the first to fourth years are found in the B.S. Textile Design section.

**FIRST YEAR**
College Studies 15-17
Design Core 9
Major Core 7
Physical Education 1
Credit Total 32-34

**SECOND YEAR**
College Studies 12
Design Core 9
Textile Core 8
Major Core 3
Credit Total 32

**THIRD YEAR**
College Studies 12
Textile Core 9
Major Core 12
Credit Total 33

**FOURTH YEAR**
College Studies 7
Textile Core 8
Major Core 6
Designated Textile Design Electives (see p. 62) 6-7
Designated Electives
Business Elective* 3
Free Electives
TXD-617 Design Studio IC 3
Credit Total 33-34

**B.S. DEGREE TOTAL 130-133**
*Business Elective (select one) MGMT-301, MKTG-102, TXD-665 (90 Credits and GPA of 3.0)

**FIFTH YEAR**
Major Core
TXD-615 Design Studio Research (Summer) 3
TXD-742 Design Studio IIA (Fall) 3
TXD-743 Design Studio IIB (Fall) 3
TXD-744 Design Studio IIC (Fall) 3
TXD-772 Design Studio IIIA (Spring) 3
TXD-773 Design Studio IIIB (Spring) 3
TXD-774 Design Studio IIIIC (Spring) 2
TXD-775 Thesis (Spring) 1
TXD-777 Advanced CAD (Summer) 3
Designated Electives
TXD-XX Elective 3
Credit Total 27

深圳市南山师范大学

2007 - 2008 Undergraduate Catalog
School of Liberal Arts

Dean: M.W. Roydhouse
Associate Dean: T.G. Schrand

Study in the liberal arts and sciences builds the ability to be an integrative thinker: a person who can see and create connections between different bodies of knowledge and across disciplinary boundaries. Through exposure to complex, real-world issues in history, the humanities and the social sciences, our students become graduates who are well-read, well-spoken, worldly, flexible, and adaptable – individuals who never stop learning and making meaningful connections in everything they do.

In keeping with the University’s mission, the School of Liberal Arts commits itself to offering liberal arts majors that have a clear professional and career focus. Each academic program prepares students to begin dynamic careers right after graduation. These majors also provide a broad liberal arts education that sets a foundation for graduate study and lifelong learning. The School of Liberal Arts offers innovative and interdisciplinary academic programs in the following areas:
- Environmental Sustainability
- Law and Society
- Professional Communication

The School of Liberal Arts also bears primary responsibility for the University’s College Studies program, the general education common curriculum at Philadelphia University. A strong grounding in the liberal arts and sciences as part of this program allows students to explore and analyze the world in which they live and work. Within the College Studies program and within its majors, the School of Liberal Arts promotes a rigorous approach to student learning. The core principles of our educational mission include a commitment to active forms of student learning, to information literacy, to integrative learning, to the development of strong communication, research and critical thinking skills, and to global perspectives in all areas of learning.
Environmental Sustainability

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, and a wide variety of other positions in business and government across the globe. 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.

FIRST YEAR

<table>
<thead>
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SECOND YEAR

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<td>WRTG-21x Writing Seminar II</td>
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<tr>
<td>Global Environmental History*</td>
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<td>Energy Systems and Politics</td>
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THIRD YEAR

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<td>Sustainable Technologies for Architecture</td>
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<td>Industrial Ecology</td>
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<td>ECBIO-201 Biodiversity</td>
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FOURTH YEAR

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<td>Environmental Politics and Policymaking</td>
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<td>Sustainability in the Developing World</td>
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<td>Managing Sustainable Organizations</td>
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<td>ECBIO-415 Natural Resource Management</td>
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<td>Sustainability Capstone*</td>
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<td>Credit Total</td>
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DEGREE TOTAL 124-126

* denotes writing intensive (WI) course
Law and Society

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. International businesses, pharmaceutical companies, high-tech firms, regional and national intelligence agencies, diplomatic service: these are only a few of the organizations 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.

### FIRST YEAR

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<td>American Government and the Legal System</td>
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<td>Crime and Justice</td>
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| Credit Total | 31-33 |

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<td>Constitutional Law and the Supreme Court</td>
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<td>Ethical Problems and the Law*</td>
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| Credit Total | 30 |

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<td>International Legal Issues</td>
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<tr>
<td>Writing, Research and Law: Sources, Issues and Argumentation*</td>
<td>3</td>
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<tr>
<td>Junior/Senior Seminar in Law and Culture</td>
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<td>Local Politics: The Local Climate In Philadelphia</td>
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| Credit Total | 30 |

### FOURTH YEAR

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| Credit Total | 31 |

### DEGREE TOTAL 122-124
Professional Communication

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, creative writing, the fine arts, 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.

**First Year**

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<tbody>
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MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus II

**Major Core**

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<td>CAD-201</td>
<td>Computer-Aided Design</td>
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<tr>
<td>Intro. to Prof. Communication: Writing Studio*</td>
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<td>What Is Design</td>
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**Physical Education**

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<td>MKTG-102</td>
<td>Principles of Marketing</td>
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<td>MKTG-207</td>
<td>Consumer Behavior</td>
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<td>Visual Communication*</td>
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<td>Survey of Research Methods</td>
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**Third Year**

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**Major Core**

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<th>Credit</th>
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<tbody>
<tr>
<td>MGMT-301</td>
<td>Principles of Management</td>
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<tr>
<td>MKTG-310</td>
<td>Marketing Communication</td>
<td>3</td>
</tr>
<tr>
<td>Technical Writing*</td>
<td>3</td>
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</tr>
<tr>
<td>Survey of Research in Emerging Technologies*</td>
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<td></td>
</tr>
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<td>Writing for the Public*</td>
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**Fourth Year**

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<tr>
<td>COLLST-499</td>
<td>Contemporary Perspectives* 4</td>
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**Major Core**

<table>
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<tbody>
<tr>
<td>MGMT-310</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Multimedia Presentations*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Capstone Portfolio*</td>
<td>6</td>
<td></td>
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<tr>
<td>Professional Issues*</td>
<td>3</td>
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<tr>
<td>Free Elective/Internship</td>
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<tr>
<td>Free Elective</td>
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</table>

**Degree Total** 122-124

* denotes writing intensive (WI) course
School of Science and Health

Dean: Matt Dane Baker
Associate Dean: Rachel Wilson
Director, M.S., Physician Assistant Studies Program: M. Rackover
Director, M.S. and Certificate, Midwifery Program: K. Dawley
Director, M.S., Occupational Therapy Program: C. Piersol
Director, M.S., Disaster Medicine and Management: J. Will


The School of Science and Health encompasses the sciences, mathematics, psychology, and the health professions. Our mission is to prepare students for: professions in science and health, entrance into graduate and professional school, and to assure that all students at Philadelphia University graduate with literacy in the scientific method and quantitative reasoning. The school emphasizes superb teaching, individualized attention, strong professional preparation, and student participation in research.

The undergraduate programs offered in the School of Science and Health are:

- Biochemistry
- Biology
- Biopsychology
- Chemistry
- Joint B.S. Chemistry (Environmental)/B.S. Engineering (Environmental)
- Environmental and Conservation Biology
- Health Sciences
- Joint B.S. Health Sciences/M.S. Physician Assistant Studies
- Pre-Medical Studies
- Psychology
- Science and Business
- Joint B.S. Science and Business/M.B.A.

The science programs include a core of mathematics and science consisting of Biology, Biochemistry, Calculus, Chemistry and Physics. The Chemistry and Biochemistry programs are accredited by the American Chemical Society (ACS). Biology and Psychology majors will discover exciting courses and electives that will be beneficial for industrial positions or graduate school acceptance. Student research in all science programs is encouraged.

The Physician Assistant Studies program was the first health care program to be offered in the School of Science and Health. This program is fully accredited. Health care programs require a strong science foundation. In addition, experiences in health care delivery settings are an integral part of the program and are crucial to the educational programs in the health care field.

College Studies Program

The School of Science and Health is jointly responsible, with the School of Liberal Arts, for the general education core of all students. Students learn the scientific method and quantitative reasoning as part of the College Studies program. Below are the science and quantitative requirements:

### Science Group

All students will complete two science courses to enhance their understanding of the scientific method and its application. Most programs require completion of both courses by the end of sophomore year. Certain majors require specific courses and sequences. Students should take the sequence that best suits the requirements of their majors.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>SCI-101</td>
<td>ENVIRONMENTAL SCIENCE</td>
</tr>
<tr>
<td>SCI-102</td>
<td>EXPLORING SCIENCE</td>
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<tr>
<td>BIOL-101</td>
<td>CURRENT TOPICS IN BIOLOGY</td>
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<tr>
<td>CHEM-101</td>
<td>GENERAL CHEMISTRY (Required for certain majors)</td>
</tr>
<tr>
<td>PHYS-101</td>
<td>GENERAL PHYSICS (Required for certain majors)</td>
</tr>
<tr>
<td>BIOL-103</td>
<td>BLOLOGY I (Required for Science and Engineering Majors only)</td>
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<tr>
<td>CHEM-103</td>
<td>CHEMISTRY I (Required for Science and  Engineering Majors only)</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>PHYSICS I (Required for Science and Engineering Majors only)</td>
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### Quantitative Reasoning Group

Students take two courses in mathematics in order to develop quantitative logic and reasoning skills and to further strengthen their critical thinking. The specific course sequence will depend on the student’s major and the level of mathematics with which the student enters the University determined by the results of placement testing. Students must take the highest level of mathematics for which they are qualified. Students will be advised by their academic advisors concerning appropriate-level mathematics courses. The four approved Quantitative Reasoning Sequences are listed below.

<table>
<thead>
<tr>
<th>Quantitative Reasoning I</th>
<th>Quantitative Reasoning II</th>
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<tbody>
<tr>
<td>MATH-100/101 Finite</td>
<td>MATH-103 Introduction to Mathematics</td>
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<tr>
<td>Mathematics</td>
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<tr>
<td>MATH-102 Pre-Calculus</td>
<td>MATH-103 Introduction to Calculus</td>
</tr>
<tr>
<td>MATH-112 Calculus II</td>
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</tr>
<tr>
<td>MATH-111 Calculus I</td>
<td></td>
</tr>
</tbody>
</table>

Philadelphia University

2007 - 2008 Undergraduate Catalog
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.

**FIRST YEAR**

**College Studies**
- WRTG-101 Writing Seminar I: 3 credits
- Arts & Cultures: 3 credits
- HIST-1XX Historical Understanding I: 3 credits
- MATH-111 Calculus I (Fall): 4 credits
- MATH-112 Calculus II (Spring): 4 credits
- CHEM 103/103L Chemistry I (Fall): 4 credits
- BIOL-103/103L Biology I (Fall): 4 credits

**Major Core**
- CHEM-104/104L Chemistry II (Spring): 4 credits
- BIOL-104/104L Biology I (Spring): 4 credits

**Physical Education**
- PE-XX Physical Education: 0.5 credits
- PE-XX Physical Education: 0.5 credits

**Credit Total**: 34 credits

**SECOND YEAR**

**College Studies**
- SOC-XX Social Sciences I: 3 credits
- Language or Area Studies I: 3 credits
- WRTG-2XX Writing Seminar II (WRTG-217 recommended): 3 credits

**THIRD YEAR**

**College Studies**
- LIT/HUMN-2XX Humanities I: 3 credits
- Junior Seminar: 3 credits
- Language or Area Studies II: 3 credits

**Major Core**
- CHEM-305 Physical Chemistry I (Fall): 4 credits
- CHEM-306 Physical Chemistry II (Spring): 4 credits
- CHEM-323 Instrumental Methods of Analysis (Spring): 4 credits
- BIOL-312 Biochemistry I (Fall): 4 credits
- BIOL-313 Biochemistry II (Spring): 4 credits

**Credit Total**: 32 credits

**FOURTH YEAR**

**College Studies**
- COLLST-499 Contemporary Perspectives: 4 credits

**Major Core**
- CHEM-309 Inorganic Chemistry (Spring): 4 credits

**Designated Elective**
- *Advanced Chemistry/Biology Elective: 3 credits
- *Advanced Chemistry/Biology Elective: 3 credits
- *Advanced Chemistry/Biology Elective: 3-4 credits

**Free Electives**
- Free Elective: 3 credits
- Free Elective: 3 credits
- Free Elective: 3 credits

**Credit Total**: 26-27 credits

**DEGREE TOTAL**: 124-125 credits

* *Advanced Chemistry/Biology Elective (select three from the following)*
- CHEM-405, CHEM-391, CHEM-392, BIOL-204/204L, BIOL-391, BIOL-392, SCI-493
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, industrial food quality control, conservation and parks management, urban restoration and planning, pollution management and remediation, cellular biology, microbiology and immunology, secondary education, animal care, physical therapy and cancer research. An investigative approach in field and laboratory courses promotes development of technical competence, as well as conceptual understanding. Small class size and a common math and science core foster an interactive community of science students and faculty, which leads to unique opportunities for interdisciplinary projects. Most students hone their analytical skills through research with faculty on campus or at other institutions through internships, and many 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.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
<td>WRTG-101 Writing Seminar I</td>
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<tr>
<td>Art &amp; Cultures</td>
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<tr>
<td>HIST-1XX Historical Understanding I</td>
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<tr>
<td>MATH-111 Calculus I (Fall)</td>
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<td>MATH-112 Calculus II (Spring)</td>
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<tr>
<td>CHEM 103/103L Chemistry I (Fall)</td>
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</tr>
<tr>
<td>BIOL-103/103L Biology I (Fall)</td>
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</tr>
<tr>
<td><strong>Math/Science Core</strong></td>
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<tr>
<td>CHEM-104/104L Chemistry II (Spring)</td>
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**SECOND YEAR**

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<tbody>
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<tr>
<td>Language or Area Studies I</td>
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</tr>
<tr>
<td>WRTG-2XX Writing Seminar II (WRTG-217 recom.)</td>
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<tr>
<td><strong>Math/Science Core</strong></td>
<td></td>
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<tr>
<td>CHEM-201/201L Organic Chemistry I (Fall)</td>
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<tr>
<td>CHEM-202/202L Organic Chemistry II (Spring)</td>
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<td><strong>Major Core</strong></td>
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<tr>
<td>BIOL-204/204L Cell Biology (Spring)</td>
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<td>BIOL-205/205L Plant Biology (Fall)</td>
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<td>BIOL-207/207L Principles of Genetics (Spring)</td>
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**THIRD YEAR**

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<tr>
<td>LIT/HUMN-2XX Humanities I</td>
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<tr>
<td>Junior Seminar</td>
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<td>Junior Seminar</td>
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<tr>
<td><strong>Math/Science Core</strong></td>
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<td>PHYS-201/201L Physics I (Fall)</td>
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</tr>
<tr>
<td>PHYS-203/203L Physics II (Spring)</td>
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<tr>
<td>STAT-301 Biostatistics (Fall)</td>
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<td><strong>Major Core</strong></td>
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<td>ECBIO-301 Ecology (Fall)</td>
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**FOURTH YEAR**

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<td>BIOL-411 Life Science Seminar (Spring)</td>
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<tr>
<td>Advanced Biology Elective*</td>
<td>3-4</td>
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<tr>
<td>Advanced Biology Elective*</td>
<td>3-4</td>
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**DEGREE TOTAL** 121-126

Biopsychology

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)

**FIRST YEAR**

<table>
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<td>WRTG-101 Writing Seminar I</td>
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<tr>
<td>Arts &amp; Cultures</td>
<td>3</td>
</tr>
<tr>
<td>HIST-1XX Historical Understanding</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning I + II (**)</td>
<td>6-8</td>
</tr>
<tr>
<td>MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus or MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus II</td>
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<td>BIOL-103/103L Biology I (Fall)</td>
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<td>BIOL-104/104L Biology II (Spring)</td>
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<td>PSYCH-101 Introduction to Psychology (Fall)</td>
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<td>PSYCH-103 Physiological Psychology (Spring)</td>
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**SECOND YEAR**

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<tr>
<td>SOC-2XX Social Sciences I</td>
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<td>Language or Area Studies I</td>
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<td>WRTG-2XX Writing Seminar II (WRTG-217 recommended)</td>
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<td>Science Core</td>
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<td>CHEM-104/104L Chemistry II (Spring)</td>
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<td>STAT-221 Psychological Applications of Statistics I (Spring)</td>
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<td>BBB Course #2 (PSYCH-240, PSYCH-241 or PSYCH-242)</td>
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<td>Psychology Concentration Option*</td>
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**THIRD YEAR**

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<td>BIOL-201/201L Human Anatomy and Physiology I (Fall)</td>
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<td>STAT-321 Psychological Applications of Statistics II (Fall)</td>
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<td>PSYCH-322 Intro to Experimental Psychology (Spring)</td>
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<td>BBB Course #3 (PSYCH-240, PSYCH-241 or PSYCH-242)</td>
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<td>Designated Electives</td>
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<td>Psychology Concentration Option*</td>
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**FOURTH YEAR**

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<tr>
<td>COLLST-499 Contemporary Perspectives</td>
<td>4</td>
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<td>Psychology Core</td>
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<tr>
<td>PSYCH-391 Advanced Research in Psychology (Fall)</td>
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<td>PSYCH-410 Senior Colloquium in Psychology (Spring)</td>
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<td>Biological Basis of Behavior (BBB) Core</td>
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<tr>
<td>BBB Course #4 (PSYCH-240, PSYCH-241 or PSYCH-242)</td>
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<tr>
<td>Credit Total</td>
<td>31-34</td>
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</table>

**DEGREE TOTAL 121-130**

*Students selecting the Pre-Med Option must take MATH-111 & MATH-112*
Chemistry

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.

Chemistry Track

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>WRTG-101</td>
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<tr>
<td>MATH-111</td>
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<td>MATH-112</td>
<td>Calculus II (Spring)</td>
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<tr>
<td>CHEM 103/103L</td>
<td>Chemistry I (Fall)</td>
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<td>BIOL-103/103L</td>
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**SECOND YEAR**

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<td>CHEM-201/201L</td>
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<td>MATH-213</td>
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<td>PHYS-203/203L</td>
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**THIRD YEAR**

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<td>CHEM-305</td>
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<td>CHEM-306</td>
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<td>CHEM-323</td>
<td>Instrumental Methods of Analysis (Spring)</td>
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<td>BIOL-312</td>
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<tr>
<td>STAT-301</td>
<td>Biostatistics (Fall)</td>
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**FOURTH YEAR**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>COLLST-499</td>
<td>Contemporary Perspectives</td>
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<tr>
<td>CHEM-309</td>
<td>Inorganic Chemistry (Spring)</td>
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### Environmental Science Track

#### FIRST YEAR

**College Studies**
- WRTG-101 Writing Seminar I 3
- HIST-1XX Historical Understanding I 3
- MATH-111 Calculus I (Fall) 4
- MATH-112 Calculus II (Spring) 4
- CHEM 103/103L Chemistry I (Fall) 4
- BIOL-103/103L Biology I (Fall) 4

**Science Core**
- CHEM-104/104L Chemistry II (Spring) 4
- BIOL-104/104L Biology II (Spring) 4
- ECBIO-101 Environmental Issues (Spring) 3

**Physical Education**
- PE-XX Physical Education 0.5
- PE-XX Physical Education 0.5

**Credit Total** 34

#### SECOND YEAR

**College Studies**
- SOC-2XX Social Sciences I 3
- WRTG-2XX Writing Seminar II (WRTG-217 recommended) 3
- Language or Area Studies I 3

**Science Core**
- CHEM-201/201L Organic Chemistry I (Fall) 4
- CHEM-202/202L Organic Chemistry II (Spring) 4
- PHYS-201/201L Physics I (Fall) 4
- PHYS-203/203L Physics II (Spring) 4

**Designated Electives**
- Advanced Environmental Elective* 3-4

**Credit Total** 31

#### THIRD YEAR

**College Studies**
- LIT/HUMN-2XX Humanities I 3
- Junior Seminar 3
- Language or Area Studies II 3

**Science Core**
- CHEM-323 Instrumental Methods of Analysis (Spring) 4
- ECBIO-301 Ecology (Fall) 4
- ECBIO-310 GIS for Landscape Analysis (Spring) 3
- ECBIO-415 Natural Resource Management (Spring) 3
- STAT-301 Biostatistics (Fall) 3

**Designated Electives**
- Advanced Environmental Elective* 3-4

**Credit Total** 30

#### FOURTH YEAR

**College Studies**
- Arts & Cultures 3
- COLLST-499 Contemporary Perspectives 4

**Science Core**
- CHEM-417 Environmental Chemistry (Fall) 4

**Designated Electives**
- Advanced Environmental Elective* 3-4
- Advanced Environmental Elective* 3-4

**Free Electives**
- Free Elective 3

**Physical Education**
- Credit Total 26-30

### DEGREE TOTAL

**First Year** 124-125

**Second Year** 121-125

**Third Year** 121-125

**Fourth Year** 121-125

Environmental and Conservation Biology

The new innovative Environmental and Conservation Biology major dovetails with the major in Landscape Architecture preparing 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.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
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<td>CHEM 103/103L Chemistry I (Fall)</td>
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<td>BIOL-103/103L Biology I (Fall)</td>
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<td>CHEM-104/104L General Chemistry II (Spring)</td>
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<td>BIOL-104/104L Biology II (Spring)</td>
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<td>ECBIO-101 Environmental Issues (Spring)</td>
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**SECOND YEAR**

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<tr>
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<td>CHEM-201/201L Organic Chemistry I (Fall)</td>
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<td>BIOL-205/205L Plant Biology (Fall)</td>
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<td>ECBIO-201 Biodiversity (Spring)</td>
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<td>ECBIO-207 Soils (Spring)</td>
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**THIRD YEAR**

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<td>Language or Area Studies II</td>
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<td>CHEM-323 Instrumental Methods of Analysis (Spring)</td>
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<td>PHYS-201/201L Physics I (Fall)</td>
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<td>STAT-301 Biostatistics (Fall)</td>
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<td>ECBIO-301 Ecology (Fall)</td>
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<td>Environmental &amp; Conservation Electives**</td>
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**FOURTH YEAR**

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<td>COLLST-499 Contemporary Perspectives</td>
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<td>LARCH-310 GIS for Landscape Architects</td>
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<tr>
<td>CHEM-417 Environmental Chemistry (Fall)</td>
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**DEGREE TOTAL 122-123**

Health Sciences

The healthcare 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 BS 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 Science program. In addition to the fully equipped genetics, microbiology, 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 (B.S.) degree in Health Science 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 therapy, community health, social work, community counseling, education, research, rehabilitation, crisis intervention, healthcare administration, public health, and human resource management. The opportunities are boundless.

**FIRST YEAR**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>WRTG-101 Writing Seminar I</td>
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<td>LIT/HUMN-2XX Arts &amp; Cultures</td>
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<td>HIST-1XX Historical Understanding I</td>
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<td>BIOL-103/103L Biology I</td>
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<td>CHEM 103/103L Chemistry I</td>
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<td>Quantitative Reasoning I + II</td>
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<tr>
<td>MATH-102 + MATH-103 Pre-Calculus + Introduction to Calculus</td>
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<tr>
<td>MATH-102 + MATH-111 Pre-Calculus + Calculus I or MATH-111 + MATH-112 Calculus I + Calculus II</td>
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**SECOND YEAR**

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<tbody>
<tr>
<td>SOC-2XX Social Sciences I</td>
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<td>Language or Area Studies I</td>
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<td>Language or Area Studies II</td>
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<td>WRTG-217 Writing Seminar II: Science</td>
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<td>PSYCH 101 Introduction to Psychology</td>
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<td>PSYCH 213 Developmental Psychology</td>
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<tr>
<td>BIOL 201/ 201L Human Anatomy and Physiology I</td>
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<td>Core Science Elective</td>
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<td>PSYCH 201 Abnormal Psychology</td>
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<td>Core Psychology Elective 1</td>
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<td>Writing Intensive Science Elective</td>
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**FOURTH YEAR**

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<td>COLLST-499 Contemporary Perspectives</td>
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<td>PAS-320 Clinical Interactions II</td>
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<td>PAS-330 Medical Terminology and Documentation</td>
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Designated Electives
Core Psychology Elective 3
Core Psychology Elective 3
Core Psychology Elective 3
Free Electives
Free Elective 3
Free Elective 3
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**DEGREE TOTAL 120-123**

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<td>BIOL-207/L Principles of Genetics/Lab</td>
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<td>PSYCH-233 Interpersonal Relations and Small Group Dynamics</td>
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<td>CHEM-202/L Organic Chemistry 2/Lab</td>
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<td>PSYCH-242 Psychology of Addiction</td>
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<td>BIOL-312 Biochemistry 1</td>
<td>PSYCH-222 Counseling Psychology</td>
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<td>BIOL-313 Biochemistry 2</td>
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<thead>
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<td>CHEM-214 Bioorganic Chemistry</td>
<td>BIOL-209 Medical Botany (writing intensive)</td>
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<td>BIOL-303 Histology</td>
<td>BIOL-315 Immunology (writing intensive)</td>
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<td>SCI-300 Pharmacology</td>
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Physician Assistant Studies

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

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 the majority of 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, 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 health care 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:
  a) 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;
  b) Performance and interpretation of diagnostic studies such as blood tests, EKGs and X-rays;
  c) Surgical assisting, which can involve activities such as control of bleeding and suturing (wound closure by placing stitches); and
  d) 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.
FIRST YEAR

College Studies

WRTG-101 Writing Seminar I 3
HIST-1XX Historical Understanding I 3
CHEM 103/103L Chemistry I (Fall) 4
BIOL-103/103L Biology I (Fall) 4
Quantitative Reasoning I + II 6-8
MATH-100/101 + MATH-103 Finite Math + Introduction to Calculus or
MATH-102 + MATH-111 Pre-Calculus + Introduction to Calculus or
MATH-102 + MATH-111 Pre-Calculus + Calculus I or
MATH-111 + MATH-112 Calculus I + Calculus II

Major Core

CHEM-104/104L Chemistry II (Spring) 4
BIOL-104/104L Biology II (Spring) 4
PA: Pre-Professional

PAS-100 Topics in Professionalism: PA 1
Physical Education
PE-XX Physical Education 0.5
PE-XX Physical Education 0.5

Credit Total 33-35

SECOND YEAR

College Studies

SOC-2XX Social Sciences I 3
WRTG-217 Writing/Communication Seminar II: Science 3
Language or Area Studies I 3
Language or Area Studies II 3

Major Core

CHEM-214 Bioorganic Chemistry (Fall) 3
PSYCH-101 Introduction to Psychology (Fall) 3
PSYCH-213 Developmental Psychology (Spring) 3
BIOL-201/201L Human Anatomy and Physiology I (Fall) 4
BIOL-202/202L Human Anatomy and Physiology II (Spring) 4
BIOL-221/221L Microbiology (Spring) 4
PA: Pre-Professional

PAS-230 Clinical Interactions I (Spring) 2

Credit Total 35

THIRD YEAR

College Studies

LIT/HUMN-2XX Humanities I 3
Junior Seminar (Fall) 3
Junior Seminar (Spring) 3
COLLST-499 Contemporary Perspectives (Spring) 4

Major Core

STAT-201 Statistics I (Fall) 3
PSYCH-201 Abnormal Psychology (Fall) 3
BIOL-207/207L Principles of Genetics (Spring) 4
BIOL-315 Immunology (Spring) 3
BIOL-303 Histology (Fall) 4
PA: Pre-Professional

PAS-330 Medical Terminology & Documentation (Spring) 3
PAS-320 Clinical Interactions II (Fall) 3

Credit Total 36

Professional Phase

FOURTH YEAR

Didactic

PAS-411/PASF-511 GR Applied Behavioral Science (Fall) 3
PAS-407/PASF-507 GR Advanced Anatomy (Fall) 5
PAS-413/PASF-513GR Medical Physiology and Pathophysiology (Fall) 3
PAS-417/PASF-517 GR Medical History and Physical Diagnosis (Fall) 5
PAS-410/PASF-510 GR Medical and Professional Ethics (Fall) 2
PAS-421/PASF-521 GR Medical Genetics, Immunology, and Microbiology (Fall) 2
PAS-611 Clinical Medicine (Spring) 8
PAS-612 Clinical Reasoning (Spring) 2
PAS-613 Pharmacology and Pharmacotherapeutics (Spring) 4
PAS-614 Emergency Medicine (Spring) 3
PAS-615 Laboratory Medicine (Spring) 2
PAS-621 Clinical Disciplines Overview (Summer I) 6
PAS-622 Pharmacotherapeutics Seminar (Summer I) 1
PAS-623 Advanced Radiology/ECG Seminar (Summer I) 1
PAS-624 Biomedical Literature and Research (Summer I & II) 3

Clinical

* Clinical Rotation (Summer II) 6

Credit Total 36

Total Credits for B.S. 124-126

FIFTH YEAR

Didactic

PAS-771 PA Master’s Project and Summary Competency Evaluation (entire year) 3

Clinical Rotations (Five done in Fifth Year) *

PAS-741 Internal Medicine Rotation 6
PAS-742 Pediatrics Rotation 6
PAS-743 Obstetrics and Gynecology Rotation 6
PAS-744 Psychiatry/ Mental Health Rotation 6
PAS-745 Surgery Rotation 6
PAS-746 Emergency Medicine Rotation 6

Clinical Preceptorships

PAS-759 Preceptorship IA: Primary Care 1 6
PAS-760 Preceptorship IB: Primary Care 2 6
PAS-763 Preceptorship IIA: Floating Medicine Block 6
PAS-764 Preceptorship IIB: Elective 6

Total Graduate (PA) Credits 93

DEGREE TOTAL 217-219

*Clinical Rotation (select all) PAS-741, PAS-742, PAS-743, PAS-744, PAS-745, PAS-746
Pre-Medical Studies

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 health care stemming from a long-established Physician Assistant Studies program, Occupational Therapy and Midwifery programs. This, combined with the University’s diversity of focus, which includes both science and liberal arts strengths, 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 health care professionals, several of whom are Philadelphia University alumni. As well as receiving grades for these experiences, students learn firsthand what being in health care means. Here 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. 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.

FIRST YEAR

College Studies
WRTG-101 Writing Seminar (Fall) 3
CHEM 103/103L Chemistry I (Fall) 4
BIOL-103/103L Biology I (Fall) 4
HIST-1XX Historical Understanding I (Spring) 3
MATH-111 Calculus I (Spring) 4
CHEM-104/104L Chemistry II (Spring) 4
BIOL-104/104L Biology II (Spring) 4
Physical Education
PE-XX Physical Education 0.5
PE-XXI Physical Education 0.5
Credit Total 30

SECOND YEAR

College Studies
MATH-112 Calculus II (Fall) 4
SOC-2XX Social Sciences I (Spring) 3
WRTG-2XX Writing Seminar II (WRTG-217 recommended) 3
Math/Science Core
CHEM-201/201L Organic Chemistry I (Fall) 4
CHEM-202/202L Organic Chemistry II (Spring) 4
STAT-301 Biostatistics (Fall) 3
Major Core
Pre-Medical Core* (Spring) 4
Credit Total 28

THIRD YEAR

College Studies
LIT/HUMN-2XX Humanities I (Fall) 3
Junior Seminar (Fall) 3
Junior Seminar (Spring) 3
Language or Area Studies II (Spring) 3
Math/Science Core
PHYS-201/201L Physics I (Fall) 4
PHYS-203/203L Physics II (Spring) 4
Major Core (Spring)
Pre-Medical Core* 4
Pre-Medical Core* 4
Pre-Medical Core* 4
Credit Total 32

FOURTH YEAR

College Studies
COLLST-499 Contemporary Perspectives 4
Major Core
BIOL-493 Preceptorship I (Third Year Summer) 3
BIOL-494 Preceptorship II (Third Year Summer) 4
Pre-Medical Core* 4
Pre-Medical Core* 4
Pre-Medical Core* 4
Designated Electives
Pre-Med Elective** 3-4
Pre-Med Elective** 3-4
Pre-Med Elective** 3-4
Free Electives
Free Elective 3
Credit Total 29-31

DEGREE TOTAL 125 -127

*Pre-Medical Core BIOL-204/204L, BIOL-312, BIOL-313, BIOL-201/2011, BIOL-202/202L, BIOL-221/221L, BIOL-207/207L
**Pre-Medical Electives BIOL-209, BIOL-303, BIOL-315, BIOL-401, BIOL-413
Psychology

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.

**FIRST YEAR**

**College Studies**

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<tr>
<td>Arts &amp; Cultures</td>
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<td>Quantitative Reasoning I + II</td>
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<td>STAT-321</td>
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<td>Psychological Applications of Statistics II (Fall)</td>
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<td>PSYCH-322</td>
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<td>Introduction to Experimental Psychology (Spring)</td>
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**FOURTH YEAR**

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<td>PSYCH-391</td>
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<td>Advanced Research in Psychology (Fall)</td>
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<td>PSYCH-410</td>
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<td>Senior Colloquium in Psychology (Spring)</td>
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<td>Free Electives</td>
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**DEGREE TOTAL** 122-126
*Psychology Distribution Electives
(select two courses from each of the following)
• Experimental Psychology Distribution
  PSYCH-210, PSYCH-211, PSYCH-212, PSYCH-213, PSYCH-214
• Clinical Psychology Distribution
  PSYCH-220, PSYCH-221, PSYCH-222, PSYCH-223, PSYCH-224
• Social/Organizational Psychology Distribution
  PSYCH-230, PSYCH-231, PSYCH-232, PSYCH-233
• Biological Basis of Behavior Distribution
  PSYCH-240, PSYCH-241, PSYCH-242, PSYCH-243

**Minor Concentration
Minor Concentration Students select a minor from those listed in the “Minor Concentrations” section of this catalog. If a chosen minor requires less than six courses, the difference must be made up with free electives. In conjunction with their advisor, students may also integrate their majors with other disciplines, such as the natural sciences, through a custom minor.
Science and Business

Leaders in the chemical, pharmaceutical and other science-related industries have recognized in recent years that an understanding of the fundamentals of science and the vital role technology plays in every aspect of modern society, in addition to the knowledge of sound management, is essential to the background of future managers. The Bachelor of Science in Science and Business is designed to meet these needs.

A unique feature of this major is its integrative nature. The common goal for all students is mastery of the technical and managerial skills necessary to define and solve problems in today’s complex technological society. The structure of this major gives the student flexibility in meeting this goal, while providing a cohesive curriculum encompassing a wide range of coursework. This program is designed to meet the increasing need of America’s rapidly growing chemical and pharmaceutical industries for a new generation of managers, managers with comprehensive training in both science and business.

Graduates of this program will be in demand. They will be qualified for a variety of entry-level positions in the chemical, pharmaceutical, agro-chemical, petrochemical, environmental and plastics industries, possibly leading to future management positions. In addition, this program has been designed to provide graduates with the flexibility of pursuing careers in business (sales/marketing) and/or pursuing graduate work in science or in business administration.

**FIRST YEAR**

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<td>CHEM-104/104L Chemistry II (Spring)</td>
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<td>FINC-308 Financial Management</td>
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**DEGREE TOTAL** 120-127

*Advanced Integrated Sequence (four courses approved by advisor)*
Joint 5-Year B.S. in Science and Business/M.B.A.

This unique program allows the student to complete both an undergraduate degree (Bachelor of Science in Science and Business) and graduate degree (Master of Business Administration) in five years. The Program includes coursework that provides excellent preparation in natural sciences, mathematics, business and healthcare that will prepare the graduate for employment in the pharmaceutical, biotechnology and chemical industries. This Program still combines the technical and managerial courses seen in the B.S. in Science and Business, but adds the advanced business curriculum of the University’s superb M.B.A. Program. This combination of degrees will be especially attractive to employers looking for people with technical knowledge, communication competence and higher level business skills.

**FIRST YEAR**

**College Studies**

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<td>MATH-102/111</td>
<td>Pre-calculus or Calculus I (Fall)</td>
<td>3/4</td>
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<tr>
<td>MATH-103/112</td>
<td>Intro to Calculaus or Calculus II (Spring)</td>
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<tr>
<td>CHEM-103/103L</td>
<td>Chemistry I (Fall)</td>
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**Science Core**

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<td>CHEM-104/104L</td>
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**Business Core**

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<tr>
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<tr>
<td>MGMT-301</td>
<td>Principles of Management</td>
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<td>MKTG-102</td>
<td>Principles of Marketing</td>
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**Physical Education**

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<tr>
<td>PE-XX</td>
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**Credit Total**

30-32

**SECOND YEAR**

**College Studies**

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<tr>
<td>SOC-2XX</td>
<td>Social Sciences I</td>
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<tr>
<td>WRTG-211 or 213</td>
<td>Writing Seminar II</td>
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**Science Core**

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<tr>
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<tbody>
<tr>
<td>CHEM-201/201L</td>
<td>Organic Chemistry I (Fall)</td>
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<tr>
<td>CHEM-202/202L</td>
<td>Organic Chemistry II (Spring)</td>
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<tr>
<td>BIOI-103/103L</td>
<td>Biology I (Fall)</td>
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<td>BIOI-104/104L</td>
<td>Biology II (Spring)</td>
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**Business Core**

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<tbody>
<tr>
<td>ECON-205</td>
<td>Macroeconomics</td>
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<tr>
<td>ECON-206</td>
<td>Microeconomics</td>
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**Credit Total**

31

**THIRD YEAR**

**College Studies**

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<td>LIT/HUMN-2XX</td>
<td>Humanities I</td>
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<td>Junior Seminar</td>
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<td>Junior Seminar</td>
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<tr>
<td></td>
<td>Language or Area Studies II</td>
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**Science Core**

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<tr>
<td>CHEM-323</td>
<td>Instrumental Methods of Analysis (Spring)</td>
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<tr>
<td>PHYS-201/201L</td>
<td>General Physics or Physics I</td>
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**Business Core**

<table>
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<td>STAT-201</td>
<td>Statistics I (Fall)</td>
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<td>STAT-202</td>
<td>Statistics II (Spring)</td>
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<tr>
<td>ACCT-101</td>
<td>Financial Accounting (Fall)</td>
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<tr>
<td>FINC-301</td>
<td>Financial Management (Spring)</td>
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**Credit Total**

31-32

**FOURTH YEAR**

**College Studies**

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<tr>
<th>Course Code</th>
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<td>COLLST-499</td>
<td>Contemporary Perspectives</td>
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**Business Core**

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<tr>
<td>INFO-101</td>
<td>Information Systems</td>
<td>3</td>
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<tr>
<td>BLAW-301</td>
<td>Business Law I</td>
<td>3</td>
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<tr>
<td>FIRC-301</td>
<td>Financial Management</td>
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<tr>
<td>MGMT-401</td>
<td>Operations Management</td>
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<td>MBA-625</td>
<td>Mgmt Communications and Negotiations</td>
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<tr>
<td>MBA-628</td>
<td>Accounting for Management Decisions</td>
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**Advanced Science Electives (**two courses approved by advisor)**

*Advanced Science Elective 3-4
*Advanced Science Elective 3-4

**Credit Total**

28-30

**UNDERGRADUATE DEGREE TOTAL**

120-125

**FIFTH YEAR (Graduate Level)**

**MBA Core**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>MBA-626</td>
<td>Global Managing in the 21st Century</td>
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<td>MBA-627</td>
<td>Management of Info through Technology</td>
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<tr>
<td>MBA-629</td>
<td>Financial Policy and Planning</td>
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<tr>
<td>MBA-630</td>
<td>Quantitative Methods in Decisions</td>
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<tr>
<td>MBA-632</td>
<td>Strategic Marketing Management</td>
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<tr>
<td>MBA-642</td>
<td>Strategic Planning in a Global Environ</td>
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<tr>
<td>MBA-792</td>
<td>International Business Trip</td>
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**MBA Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MBA ()</td>
<td>MBA Elective</td>
<td>3</td>
</tr>
<tr>
<td>MBA-791/MBA ()</td>
<td>Internship OR MBA Elective</td>
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**GRADUATE DEGREE TOTAL**

27

**TOTAL BS/MBA CREDITS:**

147-152
College Studies Program

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.

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 recently 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 96.)

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
Students who are under-prepared for university-level reading, writing and mathematics (determined by placement testing) begin the College Studies sequence with appropriate preparatory courses. 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. Students who are under-prepared for university-level writing (determined by placement testing) begin the sequence with Fundamentals of College Writing (WRTG-099).

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
## College Studies Program

Select appropriate number of courses from each block. Revised March 2007

<table>
<thead>
<tr>
<th>(i) Year 1</th>
<th>(ii) Year 2</th>
<th>(iii) Year 3</th>
<th>(iv) Year 4</th>
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<tbody>
<tr>
<td>100's</td>
<td>200's</td>
<td>300's</td>
<td>400's</td>
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<tr>
<td><em>(Language courses can be taken in any year)</em></td>
<td>Language or Area Studies</td>
<td></td>
<td>Senior Capstone Course</td>
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<tr>
<td></td>
<td>Select two courses: (6 cr.)</td>
<td></td>
<td><em>(Writing Intensive)</em></td>
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<tr>
<td></td>
<td>Japanese I-IV</td>
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<td>One course for all students (4 cr.)</td>
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<tr>
<td></td>
<td>JAPN-XXX (L341/L641/L741/L841)</td>
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<td>COllST-499 (L911)</td>
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<tr>
<td></td>
<td>Spanish I-IV</td>
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<td>Contemporary Perspectives</td>
</tr>
<tr>
<td></td>
<td>SPAN-XXX (L342/L642/L742/L842)</td>
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<tr>
<td></td>
<td>French I-IV</td>
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<td>FREN-XXX (L343/L643/L743/L843)</td>
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<td></td>
<td>German I-II</td>
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<td></td>
<td>GER-XXX (L345/L645)</td>
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<td>Italian I-II</td>
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<td>ITAL-XXX (L346/L646/L746)</td>
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<tr>
<td>Quantitative</td>
<td>Science majors</td>
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<tr>
<td>Section 1.03 Reasoning I and II</td>
<td>Select two courses from sequences: (6-8 cr.)</td>
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<tr>
<td>Section 1.02 Science I and II</td>
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<tr>
<td>Non-science majors</td>
<td>SCI-101 (L121): Environmental Science</td>
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<tr>
<td></td>
<td>SCI-102 (L314): Exploring Science</td>
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<td></td>
<td>BIOL-101 (L311): Current Topics in Biology</td>
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<td>CHEM-101 (L312): Gen. Chemistry</td>
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<td></td>
<td>PHYS-101 (L313): Gen. Physics</td>
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<td>Section 1.01</td>
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<td>Historical Understanding I</td>
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<td></td>
<td>HIST-112 (L171): Global Transitions</td>
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<td></td>
<td>HIST-113 (L172): Forces of Technology</td>
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<td></td>
<td>HIST-114 (L173): American Transitions</td>
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<td></td>
<td>Check requirements for major</td>
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<tr>
<td>Section 3.02 Writing Seminar I</td>
<td>One course for all students (3 cr.)</td>
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<td></td>
<td>WRTG-211 (L611): Business</td>
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<td>WRTG-215 (L612): Design</td>
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<td>WRTG-217 (L613)</td>
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<td>Select one course: (3 cr.)</td>
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<td>HIST-215 (L383): Evil and Good</td>
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<td>HIST-223 (L382): World Philosophies</td>
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<td>LIT-225 (L381): Exploring World Literature</td>
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<td>Section 3.04 Science, Engineering, Technology, and Health Professions</td>
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<td></td>
<td>WRTG-217 (L613)</td>
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<td></td>
<td>World Health Professions</td>
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<td>Section 3.05 Humanities I</td>
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<td></td>
<td>HIST-215 (L383): Evil and Good</td>
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<td>LIT-225 (L381): Exploring World Literature</td>
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<tr>
<td>Arts and Cultures</td>
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<tr>
<td>Article III. Non-Design Majors</td>
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<tr>
<td></td>
<td>HUMN-120 (L151): Performing Arts</td>
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<td>HUMN-123 (L152): Ideas and Images</td>
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<td>HUMN-105 (L155): Music</td>
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<td></td>
<td>ARTH-101 (T771): History of Western Art I**</td>
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<td></td>
<td>ARTH-102 (T772): History of Western Art II**</td>
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<tr>
<td></td>
<td>AHIST-205 (A331): History of Architecture &amp; Interiors I**</td>
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<tr>
<td>Total: 15-22 credits</td>
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</tbody>
</table>
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

**Science I and II - two courses**
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 best suits their previous preparation in the sciences and the requirements of their major.

**Science I and II**
- SCI-101 Environmental Science
- SCI-102 Exploring Science
- BIOL-101 Current Topics in Biology
- CHEM-101 General Chemistry
- PHYS-101 General Physics
- Or
- CHEM-103 Chemistry I
- BIOL-103 Biology I
- PHYS-103 Physics I

**Quantitative Reasoning - two courses**
Students take two courses in mathematics in order to develop quantitative logic and reasoning skills and to further strengthen their critical thinking. The specific course sequence will depend on the student's major, the level of mathematics with which the student enters the University, and, for entering first year students, the results of placement testing. Students will be advised by their academic advisors concerning appropriate level mathematics courses.

**Quantitative Reasoning**
- MATH-100/1 Finite Mathematics
- MATH-103 Introduction to Calculus
- MATH-102 Pre-Calculus
- MATH-111 Calculus I
- MATH-112 Calculus II

**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.

- HUMN-104 Art in Context
- HUMN-105 Music
- HUMN-120 Performing Arts
- HUMN-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

**Historical Understanding I - one course**
Courses in this group help students understand the significance of change over time and the way in which our present is shaped by the past. Courses focus on the transformation of societies from traditional to modern.

- HIST-112 Global Transitions
- HIST-113 Forces of Technology
- HIST-114 American Transitions

**Language 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 language 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 course in language and one course in Area Studies, or
- Two courses in the same language.

**Language Studies:**
Students must take sequenced levels of the same language to satisfy foreign language requirements; for example, a student cannot take Spanish I and French I.

**Language courses:**
- 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 Italian I-III
- 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 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 religious and ethical reasoning.
LIT-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**
COMM-300 Shaping Communication: Text, Image, and Sound
HIST-229 U.S.: Recent Past
HIST-320 Industry & Work
HONOR-380 Honors Jr. Seminar
LIT-310 Caste & Class in Literature
LIT-311 Artist & Society in Literature
LIT-315 Shakespeare and Contemporary Culture
LIT-320 From Fiction to Film
SOC-305 Post Industrial Societies
SOC-309 Social Conflict
SOC-312 Human Rights
SOC-315 The African-American Experience
SOC-317 Applied Professional Ethics
SOC-321 The Urban Experience
SOC-325 Gender Studies
SOC-327 Science & Society

**Integrative Professional Seminars**
(Category currently under development)

**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.
Continuing and Professional Studies

Executive Director, Continuing and Professional Studies: F.E. Congdon Jr.
Director, Academic Programs: E. Kolodner
Director, Marketing: K. Moran-Gannon
Director, Student Services: S.M. Calder
Director, Professional Education: T.E. Stasik

Continuing Studies at Philadelphia University is based on the philosophy that education is a lifelong experience influencing personal growth, career advancement or career change. Degree programs are designed to accommodate adult learners and their professional and personal obligations. Each semester or term, students enroll in baccalaureate, associate and certificate programs on the Main Campus and off-campus locations.

To accommodate busy professional and personal schedules, courses are offered in accelerated evening and weekend sessions. Special programs and tutoring services are available to help students adjust to the academic environment and strengthen skills in various content areas. Additionally, students who excel in their academic work are recognized on the dean’s list and in graduation honors.

The faculty and staff are committed to providing excellence in all phases of the academic experience. Continuing Studies strives to provide a challenging environment where students are able to reach their career and educational goals, as well as enrich their personal lives.

Degree Completion Programs

Accelerated Degree Program
The Accelerated Bachelor of Science degree is designed to serve the educational needs of adult learners. Uniquely structured for adults with at least 30 previously earned college credits, this program offers Bachelor of Science degrees in: Behavioral and Health Services, Emergency Services Leadership, Health Sciences, Health Services Management, Human Resource Management, Information Technology, Law Enforcement Leadership, Organizational Leadership and Pre-MBA. The program features eight-week terms, transfer of 60 or more credits from previously attended colleges and universities and ongoing academic advising and personal attention.

Certificate Programs
Certificates are beneficial for individuals seeking the basic knowledge and skills required for an entry-level position in a specific field. They are valuable for those seeking additional competencies to enhance their careers. For some individuals, certificate programs are useful as preparation for admission into one of the University’s degree programs.

Candidates are required to earn a “C” or better in all certificate courses. A maximum of six semester credits can be transferred from other accredited institutions. Students may complete the certificate program by itself or use the credits as part of a degree program.

In order to be awarded a certificate, students must apply for admission to the program before beginning the third course. Students who choose to complete the requirements of two or more certificates may apply one overlap course to both certificates.

Non-Degree Studies

Continuing Studies students who are not interested in working toward a degree or certificate, but who wish to take courses at the University to learn new skills for professional or personal development, are welcome to take evening and weekend courses, provided prerequisites are satisfied or waived.
Bucks County Campus

The Bucks County satellite campus is located in the Bucks County Technology Park, 4800 E. Street Road in Trevose, Pa. Easily accessible to residents of Lower Bucks County and Northeast Philadelphia, this campus location has been designed to serve the educational and career needs of adult students. Courses are offered in the evening and on Saturdays to accommodate the schedules of adults who balance a full calendar of professional and personal responsibilities. Academic advising, registration, book sales, library services and computer labs are all available at this location. To arrange an advising appointment call 215.953.4500

Summer Sessions

The Office of Continuing and Professional Studies offers day and evening classes from May through August during one 12-week and two 6-week sessions. Summer courses allow students to accelerate their degree programs, compensate for interruptions in their studies, facilitate career advancement or enrich their personal interests. Accelerated courses are offered in an eight-week term within the summer schedule.

A summer registration bulletin is available through the Office of Continuing and Professional Studies or by calling 215.951.2900 or email evening@PhilaU.edu.

On-Site Partnership Programs

The Office of Continuing and Professional Studies is committed to designing and delivering customized, credit-bearing educational programs for corporations and organizations with sufficient employees to enroll ten or more students per class at the location of their choice. Companies and organizations that are interested in exploring this unique program should contact Frank Congdon, Executive Director, Continuing and Professional Studies at 215.951.2902 to arrange a program assessment meeting.
The Office of Continuing and Professional Studies offers an accelerated degree completion program of 60 credits for working professionals. The courses are offered in eight week terms and focus on adult general education requirements, professional competencies, a choice of nine majors, and a limited choice of electives. Candidates for admission to this program must have previously earned 30-60 credits from regionally accredited institutions. Candidates must demonstrate competency in writing, mathematics, information systems, humanities, history, science and social science. Students can accumulate credits toward their first 60 credits through existing university coursework, pre-approved transfer coursework, CLEP examination, prior-learning assessment and pre-approved independent study. Candidates are required to complete an application and related materials, attend an individual interview and write a personal statement. Transcript evaluations are an integral part of this process.

Orientation Course 3
CSSEM 300 Professional Practice Seminar 3
General Education 15 credits
HIST 320 Business, Industry, Work in American History 3
HUMN 310 Globalization and World Politics 3
SOC 310 The Social Science of the Workplace 3
COMM 320 Professional Communication Skills 3
CSSEM 499 Professional Capstone Seminar 3
Continuing Studies Core 15 credits
MGMT 351 Leadership Theory 3
ECON 331 Economic Decision Making 3
STAT 311 Finding and Evaluating Statistical Data 3
FINC 323 Financial Decision Making 3
MGMT 330 Organizational Ethics 3
Major – select one 15 credit option below 15 credits
PSYCH 201 Abnormal Psychology 3
PSYCH 222 Counseling Psychology 3
PSYCH 233 Interpersonal Relations and Small Group Dynamics 3
PSYCH 213 Developmental Psychology 3
BEHLT 341 Behavioral Health and Neurorehabilitation 3
BEHLT 499 Applied Project in Behavioral and Health Services 3
Health Services Management 15 credits
HRM 350 Cross Cultural Communication and Diversity Management 3
HLTSV 310 Survey of Health Services Delivery Systems 3
HLTSV 315 Public Policy and Planning in Healthcare 3
HLTSV 325 Emerging Issues in Healthcare 3
HLTSV 499 Capstone Seminar in Health Services Management 3
Human Resource Management 15 credits
MGMT 320 Human Resource Management 3
HRM 321 Staffing and Resource Development 3
HRM 336 Compensation and Benefits, Health and Safety 3
HRM 421 Organizational and Employee Relations 3
HRM 499 Applied Research and Practice in Human Resource Management 3
Information Technology 15 credits
IT 315 Information Technology I 3
IT 317 Information Technology II 3
IT 320 Database Management 3
IT 410 Needs Assessment 3
IT 499 Project Management 3
Organizational Leadership 15 credits
PSYCH 233 Interpersonal Relations and Small Group Dynamics 3
COMM 310 Communication Theory and Practice 3
MKTG 320 Visual Literacy 3
HRM 350 Cross Cultural Communication and Diversity Management 3
OL Elective
Pre M.B.A. 15 credits
MGMT 401 Operations Management 3
MKTG 102 Principles of Marketing 3
ACCT 101 Financial Accounting 3
ACCT 102 Managerial Accounting 3
BUS 499 Business Capstone Seminar 3
Health Sciences 15-16 credits
Choose 5 of 6 course options:
PSYCH 201 Abnormal Psychology 3
PSYCH 233 Interpersonal Relations and Small 3
Group Dynamics
PSYCH 213 Developmental Psychology 3
BEHLT 341 Behavioral Health and Neurorehabilitation 3
BEHLT 499 Applied Project in Behavioral Health and Neurorehabilitation 3
BIOL 202 Anatomy and Physiology II 4

Note:
The Professional Studies core is modified as follows:
Required:
BIOL 104 Biology II 4
Replaces
ECON 331 Economic Decision Making 3
BIOL 201 Anatomy and Physiology I 4
Replaces
FINC 323 Financial Decision Making 3

Law Enforcement Leadership 15 credits
MGMT 320 Human Resource Management 3
LAWEN 301 Planning for Law Enforcement Organizations 3
LAWEN 410 Advanced Law Enforcement Theory and Management 3
LAWEN 499 Capstone Seminar and Project in Law Enforcement 3

Leadership in Emergency Services 15 credits
EMS 310 Emergency Services Law 3
EMS 320 Emergency Management Planning 3
EMS 330 Public Health Issues Impacting Emergency Services 3
EMS 410 Disaster Response and Recovery Planning 3
EMS 499 Theoretical Applications and Applied Project in Emergency Services Leadership 3

Associate in Science: Business Administration

Evening only – Available to existing students and employees only.

College Studies (21-23 credits)
WRTG 101 Writing Seminar 3
SCI 101 Environmental Science 3
MATH() Quantitative Reasoning 3
MATH() Quantitative Reasoning 3

For Quantitative Reasoning select one two-course sequence:
MATH 101/1 Finite Mathematics MATH 102 Pre-calculus (3 cr.)
MATH 103 Introduction to Calculus (3 cr.) MATH 111 Calculus I (4 cr.)
MATH 102 Pre-calculus (3 cr.) MATH 111 Calculus I (4 cr.)
MATH 103 Introduction to Calculus (3 cr.) MATH 112 Calculus II (4 cr.)
HIST() Historical Understanding 1
SOC() Social Science 1
HUMN() Humanities I (WRTG 101, HUMN)

Business and Economics Core (30 credits)
INFO 101 Introduction to Information Systems 3
MGMT 301 Principles of Management 3
STAT 201 Statistics I (MATH 100 3
MKTG 102 Principles of Marketing 3
ACCT 101 Financial Accounting 3
BLAW 301 Business Law I 3
ACCT 102 Managerial Accounting (ACCT 101) 3
FINC 322 Financial Management (ACCT 101, STAT 201 or MATH 111) 3
ECON 205 Macroeconomics 3
ECON 206 Microeconomics 3

Free Electives (9 credits)

CREDIT TOTAL: 60-62

*Prerequisites are listed after the course name in parentheses.
Associate in Science: 
Health and Human Services

Restricted Enrollment

This 60 credit program builds on technical training programs that have been approved by the Pennsylvania Department of Education for post-secondary credit and that have articulation agreements with the University.

District 1199C Training and Upgrading Fund

**Program** | **Credits**
---|---
BEHLT 199 Behavioral Health Technician Training Program | 21

**Core Competencies**

WRTG Writing Seminar I | 3
COMM 320 Professional Communication Skills | 3
MATH 215 College Algebra | 3
SCI 101 Environmental Science | 3
HIST 114 The Rise of the Modern World: American Transitions | 3

**Psych** 101 Introduction to Psychology | 3
HULTSV 210 Ethical Issues for Human Services Providers | 3
IT 101 Introduction to Information Systems | 3

**Major Concentration**

PSYCH 201 Abnormal Psychology | 3
PSYCH 223 Interpersonal Relations and Small Group Dynamics | 3

PSYCH 224 Psychology of Addiction | 3
COMM 310 Communication Theory and Dynamics | 3
BEHLT 290 Clinical Interactions in Behavioral Health | 3

**CREDIT TOTAL:** 60

Jewish Employment and Vocational Services

Orleans Technical Institute

**Program** | **Credits**
---|---
HVMSV 199 Human Services Training Program | 30

**Core Competencies**

WRTG 101 Writing Seminar I | 3
MATH 215 College Algebra | 3
SCI 101 Environmental science | 3
HIST 114 The Rise of the Modern World: American transitions | 3

**Psych** 101 Introduction to psychology | 3
COMM 310 Communication Theory and Dynamics | 3
IT 101 Introduction to information Systems | 3

**Major Concentration Category**

PSYCH 201 Abnormal psychology | 3
PSYCH 223 Interpersonal relations and small group dynamics | 3

BEHLT 290 Clinical interactions in behavniior health | 3

**CREDIT TOTAL:** 24

Post-Baccalaureate 
Certificate: Accounting

Pennsylvania requires a bachelor’s degree and 24 credits of accounting to sit for the C.P.A. examination. The Accounting Certificate program is designed for individuals who have a bachelor’s degree in a field other than accounting and who wish to take the C.P.A. examination. Students should be aware that experience in public accounting is also required for certification. Students who apply to this program must have a bachelor’s degree. Students should consult an advisor for current requirements.

ACCT 101 Financial Accounting | 3
ACCT 203 Intermediate Accounting I (B403) | 3
ACCT 204 Intermediate Accounting II (B441) | 3
ACCT 303 Accounting Theory and Practice (B442) | 3
ACCT 316 Cost Accounting (B441) | 3
ACCT 309 Federal Taxes I (B403) | 3
ACCT 409 Auditing (B442) | 3
ACCT 412 Advanced Accounting (B443) | 3

**CREDIT TOTAL:** 24

Please note that the requirements for the C.P.A. examination are being evaluated for change and therefore, could impact changes in the above courses in the future. Consult with an adviser before finalizing your program. Students may need to enroll in late afternoon and summer school classes to complete requirements as evening classes are no longer available.
Minor Concentrations

Some programs require a minor. A student should choose a minor concentration upon the completion of 60 semester hours. This should be planned with the assistance of an academic advisor.

To enhance a student’s academic experience, it is recommended that a student select a minor significantly different from his/her chosen major. For example, a Management major may want to select a Finance minor or vice versa. Also, a combination of a Business major with a Social Sciences minor will enrich the student’s education and preparation for a successful career.

A student may not combine a major and minor in the same or similar functional area (e.g., Finance major and Finance minor; Management major and Human Resource Management minor.)

Since several majors and minors include many elective courses, overlap may be possible. To qualify for a major or a minor, a student may not use the same course for credit in both the major and minor areas and must seek approval from the dean of the School for a substitute elective from within the discipline.

Certain courses in the minor may have prerequisite courses that need to be completed.

Accounting Minor 12 credits
The Accounting minor permits students to enrich their knowledge of the “language of business.” No matter what profession a graduate enters, the ability to read and comprehend historical and prospective financial information will be essential. Students will be provided with an in-depth understanding of generally accepted accounting principles through intermediate accounting courses, an exposure to federal taxation and a choice of accounting electives for more intensive study.

ACCT-101 Intermediate Accounting I
ACCT-204 Intermediate Accounting II
ACCT-309 Federal Taxes I
Any advanced Accounting elective, except ACCT-316 Cost Accounting I

Business Minor for Non-Business Major 12 credits
This minor is specifically designed for the Non-Business major. It will provide students with marketable business skills upon graduation that are useful to any professional person.

Required (6 to 9 credit hours)
ACCT-101 Financial Accounting
ECON-205 Macroeconomics and/or
ECON-206 Microeconomics
Choose additional courses (total 12 credit hours)
BLAW-301 Business Law I
ACCT-102 Managerial Accounting
FINC-301 Financial Management

Custom Minor 12 credits
A custom minor is a thematic/area/subject cluster of four courses from any of the Schools. The student’s advisor and the dean of the School, where the minor will be granted, must approve custom minors.

E-Commerce Minor 12 credits
E-commerce is the Internet-enabled buying and selling of goods and services, servicing customers, collaborating with vendors and customers, and conducting electronic transactions within an organization. It includes email marketing, virtual learning, banner ads on a Web page, 24/7 customer support systems, ERP, CRM and XML; it is an electronic wallet; it is borderless, seamless, and timeless; it is all that and more. The E-commerce minor involves the study of products, the business processes, and the supply chain of startup dot-coms to brick-and-mortar Fortune 500 firms. The program features a balance of information technology and managerial decision-making.

MKTG-315 Marketing in an Electronic Environment
MKTG-408 Survey of E-Commerce
MIS-202 Management Information Systems
MIS-305 Database Analysis, Design, and Management

Economics Minor 12 credits
Regardless of whether a student majors in business, textiles, the humanities or another discipline, students will be affected by economic factors. The Economics minor will enable students to understand and anticipate economic fluctuations and make changes necessary for success.

Any four advanced Economics electives are permitted, but one course may be from FINC-322, FINC-303, FINC-318, FINC-321 or FINC-333.

Environmental and Conservation Biology Minor 12-16 credits
This minor will provide students with the necessary background and skills for comparing and contrasting the impact on the environment of both daily lifestyle choices and economic, legal, management and business decisions in government and industry.

ECBIO-101 Environmental Issues
ECBIO-102 Biodiversity
Any two of the following:

Fashion Industry Management Minor 12-13 credits
Students choosing a minor concentration in Fashion Industry Management can look forward to employment in the textile and apparel sectors of the apparel and textile supply chain.

FASHMGT-101 Survey of the Apparel Industry
TEXT-101 Survey of the Textile Industry
Any two of the following:
FASHMGT-305 Apparel Production
FASHMGT-408 Apparel/Textile Sourcing
TEXT-331 Apparel Fabric Performance
Finance Minor 12 credits
Finance plays a crucial role in all profit and nonprofit organizations. The Finance minor is a wise choice for any student interested in a business or service organization career.
FINC-303 Intermediate Financial Management
FINC-321 Investments and Portfolio Management
Any two Finance electives, but at least one must be from FINC-322, FINC-318, FINC-333, FINC-411 or ECON-305.

Foundation Design Minor 12 credits
The Design minor introduces students to drawing and the basic elements and principles of two- and three-dimensional design, as well as their application in the design process. In-depth studies emphasizing the use of color are undertaken. A general survey of the philosophy and utility of CAD systems may be accomplished through hands-on experience.
DSGNFND-103 Design Foundations I or ADFND-101 Design I
DRAW-101 Drawing I
Any two of the following:
ADFDND-102, ADFND-104, ARCHDSN-208, CAD-201, DRAW-201, DRAW-206 or DSGNFND-203.
Any course from a design major approved by the advisor.

Historic Preservation Minor 12 credits
This minor provides a foundation in the field of historic preservation. The required courses cover issues including the history of the movement in the U.S., contemporary practice and field work, economic consequences, as well as methods of and standards for documentation. Elective courses broaden the student’s experience with discussions of American urban traditions, architectural ornament, vernacular ways of building around the world, and design considerations in a preservation project.
ARCH-421 Historic Preservation
ARCH-420 Building Preservation
Any two of the following:

Human Resource Management Minor 12 credits
The Human Resource Management minor provides students with the basic skills needed to manage the personnel component of an organization. The minor concentrates on the processes by which jobs are designed and filled by human resources, as well as how a skilled work force is maintained in an organization. The student will gain familiarity with the techniques of recruiting, hiring, training and evaluating employees. The student will also become familiar with the basic concepts of employee and union-management relations, including contract negotiations. Not available to management majors.
MGMT-310 Organizational Behavior
MGMT-320 Human Resource Management
MGMT-418 Industrial Relations
One advanced Management elective from the following:

Information Systems Minor 12 credits
Information systems supply an ever more important role in support for management decision-making. According to the U.S. Department of Labor’s 2003 Web site, “Employers prefer managers with advanced technical knowledge acquired through computer-related work experience and formal education.” The IS minor is intended to supply a foundation for that level of knowledge. Not available to Management Information Systems.
MIS-202 Management Information Systems
MIS-305 Database Design, Analysis & Management
Two additional Information Systems electives from the following:

International Business Minor 12 credits
The world in which business is being conducted is changing rapidly and is creating new challenges and opportunities for managers. The International Business minor is provided for students who want to strengthen their knowledge and understanding of global changes and their impact on business.
ECON-401 International Economics
FINC-318 International Finance and Development
MGMT-307 International Management
MKTG-324 International Marketing

Landscape Architecture
These two minors — one for design majors (primarily for architecture or interior design majors) and one for non-design majors (primarily for environmental and conservation biology majors) — introduce the student to the field of landscape architecture. For the Landscape Design minor, the required courses cover the various areas — history/theory, technology, horticulture, and design — that constitute an understanding of the discipline relative to design. For the Landscape Planning Minor, the required courses cover the various areas — technology, communication, and history — that are needed for an understanding of the discipline relative to planning.

Human Resource Management Minor 13-15 credits
ECBIO-208 Local Flora (3 credits)
One of the following history/theory courses
LARCH-207 Technology I: Grading
LARCH-307 History of Landscape Architecture II
LARCH-411 Landscape Architecture Theory: Seminar
One of the following history/theory courses
LARCH-202 Design IV for Landscape Architecture
LARCH-302 Design VI for Landscape Architecture
LARCH-401 Design VII Topical Studio for Landscape Architecture
**Landscape Planning Minor 12 credits**

LARCH-207  Technology I: Grading  
LARCH-203  Graphics for Landscape Architecture  
LARCH-206  History of Landscape Architecture I  

One of the following:  
LARCH-310  GIS for Landscape Analysis  
LARCH-412  Technology III: Hydrology  

**Management Minor 12 credits**

This minor allows students to enroll in a group of key management courses that teach the essential theory and practice for managerial positions in fields such as accounting, retailing, design management, marketing management or other technical majors. Together with the knowledge base learned in students’ major fields, this minor increases students’ understanding of organizations typical of those in which they will be employed, thereby enhancing the likelihood of promotion to a managerial position. Not available to Management or Human Resource Management majors.

MGMT-310  Organizational Behavior  
MGMT-320  Human Resource Management  
MIS-202  Management Information Systems  

One advanced Management elective from the following:  

**Marketing Minor 12 credits**

The marketing of goods or services is the central focus of most profit and nonprofit organizations. Thus, regardless of students’ majors, a solid understanding and appreciation of the marketing discipline will enhance students’ decision-making capabilities and make them better managers. Not available to Marketing majors.

MKTG-207  Consumer Behavior  
MKTG-310  Marketing Communications  
MKTG-391  Marketing Research  

One advanced Marketing elective from the following:  
MKTG-217, MKTG-315, MKTG-318, MKTG-324, MKTG-328 or MKTG-381.  

**Multimedia and Visualization Minor 12 credits**

This minor introduces students to the conceptual and technical issues involved in creating and producing multimedia and visualization projects. Emphasis will focus on the application of digital technologies to enhance the design and presentation process.

Select four from the following:  
ARCH-324  Visualization: Experimental Modeling  
ARCH-326  Visualization: Advanced Modeling  
ARCH-415  Visualization: Multimedia  
DIGD-407  Digital Design and Visualization Studio  
GRAPH-310  Digital Imaging and Photographic Manipulation  

**Organizational Behavior Minor 12 credits**

This minor provides the student with an understanding of how organizations are designed to successfully perform a number of business activities, including making decisions, motivating members and dealing with conflict. Students also take courses that focus on areas such as entrepreneurship, managing people or health care. The knowledge and skills learned from such courses, combined with the knowledge base gained from students’ major fields, increase students’ understanding of the organizations in which they will be employed. It also enhances the likelihood of promotion to managerial positions or the successful development of an individual’s own business. Not available to Management majors.

MGMT-310  Organizational Behavior  
MGMT-412  Management Seminar  

Two advanced Management electives from the following:  

**Photography Minor 12 credits**

This minor introduces students to various types of photography, photographic lighting and the use of images in documentation. Emphasis will be on broadening the realm of the expression in design.

ARCH-411  Architectural Photography/Portfolio  
ARCHDSN-381  Independent Study in Architecture, Interior Design Communication  
GRAPH-204  Introduction to Photography for Graphic Design  
PHOTO-301  Studio Photography  

**Pre-M.B.A. Minor for Business Majors 12 credits**

The Pre-M.B.A. minor for Business majors provides the opportunity to begin taking graduate-level business courses in the senior year, allowing students who have completed their Bachelor of Science Degree in Business Administration to complete a Master of Business Administration degree in one year of daytime study. The M.B.A. may also be completed in the evening. This minor is for undergraduate business majors only. Students must be accepted into the M.B.A. program before registering for graduate courses and may only begin taking graduate courses in senior year.

MBA-625  Management Communications and Negotiations  
MBA-628  Accounting for Management Decisions  

Plus two undergraduate business courses, excluding business core, from the same functional area. The courses must be outside of the student’s undergraduate major. It is advised that students selecting this minor consult with a graduate advisor before selecting these two courses.
Pre-M.B.A. Minor for Non-Business Majors 27 credits

The Pre-M.B.A. minor for Non-Business majors provides the opportunity to begin taking graduate-level business courses in the senior year, allowing students who have completed their bachelor’s degree to complete a Master of Business Administration degree in one year of daytime study. This minor is for undergraduate non-business majors only. Since there are some differences for the Accounting and Health Care Management M.B.A. options, it is highly recommended to consult with your academic advisor prior to enrolling in any classes. Students must be accepted into the M.B.A. program before registering for graduate courses and may only begin taking graduate courses in the senior year. Non-Business majors interested in the Joint B.S./M.B.A. Program should obtain a copy of the “Pre-M.B.A. Requirements for Non-Business Majors: Planning Guide.” The planning guide should be used in combination with the University catalog and the check sheet for the student’s undergraduate major. The Guide describes the requirements for admission and the application process as well as the Pre-M.B.A. course requirements. Planning guides are available from upper-level advisors as well as the Graduate Business Programs office in Tuttleman 104.

MGMT-301 Principles of Management
MGMT-401 Operations Management
(or MBF-510)
MKTG-102 Principles of Marketing
FINC-301 Financial Management
(or MBF-505)
MBF-503 Foundations of Economic Analysis
MBF-504 Introduction to Financial and
Managerial Accounting
MBF-508 Statistical Analysis for Business Decisions
MBA-625 Management Communications and Negotiations
MBA-628 Accounting for Management Decisions

• Course numbers under 500 indicate that the course is an undergraduate business course.
• Course numbers beginning with “MBF” indicate graduate master-level foundation courses, and course numbers beginning with “MBA” indicate graduate master-level courses.
• Courses in parentheses are acceptable equivalents to those that precede them.

Psychology Minor 12 credits

All disciplines in the social sciences analyze human behavior on one level or another. Psychology’s uniqueness lies mainly in the fact that it is an experimental science. Students who minor in psychology will study a body of knowledge about the causes of human and animal behavior and the experimental methods used to study behavior. Students completing this minor should be better able to understand their own behavior and the behavior of others, in both work and leisure settings.

PSYCH-101 Introduction to Psychology (required)

Any three Psychology courses (chosen in consultation with a psychology faculty member)

Social Sciences Minor 12 credits

College Studies requirements plus four additional courses approved by the School of Liberal Arts Dean’s Office.

Textile Minor 12-15 credits

The Textile minor offers students an introduction to the process flow of fibers through finished products, as well as an overview of the structure of the textile industry. Textile technology is correlated to end-use performance by emphasizing the relationship of textile suppliers, apparel and home furnishing manufacturers, retailers and government regulations to consumer needs. This basic understanding of textile product capabilities and limitations allows the individual to be a discriminating, educated consumer.

TEXT-101 Survey of Textile Industry (required)

Any three of the following:

KNIT-201 Knitting I
PRINT-305 Textile Printing Technology
TEXT-307 Textile Materials
TEXT-113 Yarn Engineering
WEAV-201 Weaving I
# Course Descriptions

This letter/number system is used to designate the various schools or the disciplines within these schools.

## Key to Course Description Information

Before registering for a course, students must satisfy prerequisites as indicated in the following course descriptions. When changes are made, students are to follow the requirements in the most recent catalog.

### Course Prefix

<table>
<thead>
<tr>
<th>Course Prefix</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACCT</td>
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<td>History of Architecture &amp; Interiors</td>
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### Course Number

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Refer to most recent catalog

Prerequisite: course(s) that must be completed before enrolling in this course.

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Philadelphia University

2007 - 2008 Undergraduate Catalog
Course Descriptions

ACCT-101 (Formerly B403) 3-0-3
Financial Accounting
Designed to introduce all business students to the field of accounting, the course covers the fundamental principles of accounting, including the balance sheet and income statement presentation. Primary emphasis is placed on accounting as a source of financial information, with procedural details kept to a minimum.

ACCT-102 (Formerly B423) 3-0-3
Managerial Accounting
Objective analysis and interpretation of accounting information. Use of accounting information as a basis for planning, control and managerial decisions.
Prerequisite: ACCT-101 (may not be taken by accounting majors)

ACCT-203 (Formerly B441) 3-0-3
Intermediate Accounting I
An in-depth study of basic accounting principles and theory followed by a detailed analysis of cash, receivables and investments (including the related revenue and expense transactions). Text supplemented with the current rulings of the AICPA.
Prerequisite: ACCT-101

ACCT-204 (Formerly B442) 3-0-3
Intermediate Accounting II
Continues the analysis of a company’s balance sheet with a study of inventories, fixed assets and liabilities. Text supplemented by current rulings of the AICPA.
Prerequisite: ACCT-203

ACCT-303 (Formerly B443) 3-0-3
Accounting Theory and Practice
This course will enable students to study topics such as corporate entities, cash flow statements, pensions and leases; along with other material not covered in previous accounting courses.
Prerequisite: ACCT-204

ACCT-309 (Formerly B463) 3-0-3
Federal Taxes I
This course examines the federal tax laws as related to individual income taxation. The textbook is supplemented by using the actual 1040 tax forms and the related supporting schedules. The course is open to all students.
Prerequisite: ACCT-101

ACCT-316 (Formerly B461) 3-0-3
Cost Accounting I
This course includes study of job order, process and standard cost systems; cost-volume-profit analysis; absorption versus direct costing; inventory-control systems, including EOQ and JIT systems concepts; relevant costing in decision making; time value of money concepts; and capital-budgeting theory and application.
Prerequisite: ACCT-203

ACCT-325 (Formerly B466) 3-0-3
Business Taxes-State and Federal
An in-depth coverage of business taxes. Emphasis is placed on partnership, corporation and sub-corporations. Pennsylvania, New Jersey and Delaware tax laws will be examined.
Prerequisite: ACCT-309

ACCT-381 (Formerly B499) 0-0-3
Independent Study in Accounting
Intensive independent study of a chosen subject. The student is expected to read a substantial number of major works in the field and to prepare a critical documented paper. See also the statement on Independent Study under “Academic Policies.”
Prerequisites: permission of the faculty member and the dean of the School of Business Administration

ACCT-409 (Formerly B464) 3-0-3
Auditing
Principles, standards and procedures of auditing. Emphasis upon the public accounting profession, its current pronouncements, practices and problems.
Prerequisite: ACCT-204

ACCT-412 (Formerly B465) 3-0-3
Advanced Accounting
This course includes study of business combinations and consolidated financial-statement preparation, foreign subsidiary operations, foreign transactions, and government and not-for-profit industry accounting. The text is supplemented with current rulings of the AICPA.
Prerequisite: ACCT-409

ADFND-101 (Formerly A111) 0-8-4
Design I: Interdisciplinary Foundation Studies
This basic foundation course is required in the Architecture, Interior Design and Landscape Architecture curricula. It is an introduction to fundamental design principles and vocabulary, process methodologies and problem-solving strategies. Lectures and demonstrations will stress abstraction as a primary building block for future design studios.

ADFND-102 (Formerly A112) 0-8-4
Design II: Interdisciplinary Foundation Studies
This basic foundation course is required in the Architecture, Landscape Architecture and Interior Design curricula. It is a synthesis of fundamental design principles and an introduction to research as a tool for understanding programming and design. Lectures and demonstrations will utilize the case-study methodology to investigate various design strategies and to chart the historical course of modernism.
Prerequisite: ADFND-101

ADFND-104 (Formerly A122) 1-5-3
Drawing II for Architecture
This is a drawing elective option. Drawing skills will be developed through rapid exploratory sketches and through complex three-dimensional studies that explore volumes/voids and light/shade with special references to architectural details and furniture. Investigation of space/form relation-
ships through one- and two-point perspectives and through various drawing materials will be introduced.

Prerequisite: DRAW-101

**ADFND-110 (Formerly A124) 1-5-3**

**Painting from Perception**

Building on the foundation of the introductory drawing course, this elective course allows students to work from perception as they learn painting skills using acrylic and other water-based media. The course explores issues of composition with color and develops the student's sensibility toward the use of color. Subject matter includes still life, portraiture, figure, interiors and landscape.

Prerequisites: DRAW-101, and ADFND-101 or DSGNFND-103

**ADFND-112 (Formerly A125) 1-4-3**

**Technics of Communication**

The designed object is tangible, but it is always first an image. The image, the product of visualization, is most fundamentally communicated through the techniques of two-dimensional modeling we call drawing. Today’s designer is privileged to own a vast range of technologies, ancient and modern, to devise comprehensive strategies for visualizing and communicating ideas. By integrating techniques the student will learn the appropriate tool to employ at any given point in the design process to effectively communicate to self and to others.

Prerequisites: DRAW-101, grade of “C” or better in ADFND-101

**AHIST-205 (Formerly A331) 3-0-3**

**History of Architecture and Interiors I**

This course surveys key examples of Western and non-Western architecture and interiors produced from prehistory through the beginnings of Christianity and Buddhism. By tracing significant historical themes, lectures emphasize the visual and conceptual components of the major monuments of Europe, Asia, Africa and the Americas. Students compare and contrast the various historical styles and acquire a working vocabulary for both analyzing and evaluating the built environment, as well as painting, sculpture and the decorative arts.

Prerequisite: WRTG-101

**AHIST-206 (Formerly A332) 3-0-3**

**History of Architecture and Interiors II**

This course overviews significant historical themes through examples of Western and non-Western architecture and interiors produced from the rise of Islam in the seventh century to the Baroque period in Italy. Students acquire a working vocabulary for both analyzing and evaluating the built environment, as well as painting, sculpture and the decorative arts. Works are placed within a broad historical context by considering factors such as religion, philosophy, iconography, the role of the artist or architect, political and economic systems, materials and techniques, and construction methods and technology.

Prerequisite: AHIST-205

**AHIST-305 (Formerly A531) 3-0-3**

**History of Architecture and Interiors III (writing intensive)**

Style from the 17th through the 19th centuries is stressed by examining the relationship between design and meaning. Works are placed in historical context by considering religion, iconography, the role of the artist/designer, patterns of patronage, political and economic systems, materials, construction methods and technology. Concepts specific to the theory and making of architecture and interiors are stressed by tracing formation and development over time. Past styles that inspired past and present Philadelphia designers are emphasized.

Prerequisite: AHIST-206

**AHIST-306 (Formerly A532) 3-0-3**

**History of Architecture and Interiors IV (writing intensive)**

This course is an overview of the major movements and theoretical concepts of 20th-century design. Discussion includes the societal and environmental aspects — politics, economics, science and technology, psychology, etc. — that shape the greater context for architecture, interiors and the allied arts. Examples are analyzed, using the objects themselves, as well as the writings that the creators have left behind.

Prerequisite: AHIST-305

**ANIM-201 1-5-3**

**Introduction to Animation**

This course will introduce students to the practice of animation and the various techniques employed in its production. Short exercises involving hand-drawn, stop-motion and other non-digital means will serve to expose students to the fundamental concepts involved. Students will then apply these concepts to their digital toolkit in order to create a longer final project.

Prerequisite: DSGNFND-203

**ANIM-202 1-5-3**

**Storytelling and Storyboarding**

This course will seek to give students a strong foundation in storytelling. Emphasis will be placed on visual storytelling, as the storyboard is the script for animation. In addition to story structure, students will explore screen composition and editing as means of relating narrative content. The class will consist of several storyboard exercises, culminating in the production of an animatic, a filmed version of the storyboard with a soundtrack.

Prerequisite: ANIM-201

**ANIM-301 0-10-5**

**Motion Graphics I**

This major studio course explores time and motion in the creation of primarily graphic narratives. The techniques of abstraction, motion typography and musical synchronization are studied in the context of increasingly complex projects. A major aspect of the course will be the screening of both abstract films and reels from contemporary motion graphics films.

Prerequisite: ANIM-202
ANIM-307  1-5-3  3D Modeling
This course will give students a foundation in the concepts and techniques of 3D modeling and rendering. Specific attention will be paid to modeling environments, objects, and characters. Students will explore polygonal, NURBS, and subdivision-surface modeling and their respective workflows. Prerequisite: ANIM-202

ANIM-308  1-5-3  3D Animation
This course builds upon the concepts learned in 3D modeling to include animation and character setup. Special attention will be given to applying the techniques of traditional character animation to this contemporary medium. Projects will range from short animation exercises to a longer, character-driven piece. In addition, the class will view and discuss current and classic animated film. Prerequisite: ANIM-307

ANIM-312  0-10-5  Motion Graphics II
This class explores the concepts covered in Motion Graphics I but with the introduction of 3D graphics and video as elements of motion graphics. In addition, the mediums of dance, photography, architecture and painting will be discussed as possible inspirations. Prerequisites: ANIM-301, ANIM-307

ANIM-407  0-10-5  Advanced Topics in 3D Animation
This class will allow students to delve deeper into areas covered in prior 3D classes. Topics include advanced modeling techniques, character setup, special effects, dynamics, lighting and rendering. The creation of a character interacting with its environment will drive the projects in this class. Prerequisite: ANIM-308

ANIM-497  0-3-3  Digital Animation Capstone Preparation (writing intensive)
This course focuses on preparing the student to create a short film in the Spring. The pre-production phase includes conceptualizing the story, writing the script and creating storyboards. In the process of preparing, students will also learn to schedule, budget and distribute their film. At the end of the semester, the student will have a completed animated film from which production can start in the Spring. Prerequisites: ANIM-308, ANIM-312

ANIM-498  0-10-5  Digital Animation Capstone Project
In their final semester, students are required to produce a short film. Students will realize the concepts they explored in the Capstone Preparation course. Prerequisites: ANIM-407, ANIM-497

ARCH-201 (Formerly A311)  0-8-4  Design III: Architecture and Landscape Foundations Studies
This foundation course focuses on building the landscape using the elements, principles and theories of architectural and landscape design. Concurrently, specific theoretical issues related to design, organization and the interrelationship of interior and exterior space are explored. A particular emphasis is placed on an experiential and intuitive design process. The importance of the building “parti” as a response to naturally occurring context is stressed. Techniques of representation are developed and refined. Prerequisite: grade of “C” or better in ADFND-102

ARCH-202 (Formerly A312)  0-8-4  Design IV: Architecture Foundations Studies
This foundation studio concentrates on general issues concerning “dwelling” and specific issues addressing housing and residential design are explored. Emphasis is placed on designing in the urban context. This course uses research, writing and analysis of human patterns of occupancy and settlement as a means of exploration. The use of computer-generated drawings as a component of the final design project is encouraged. Prerequisite: grade of “C” or better in ARCH-201

ARCH-211 (Formerly A342)  2-2-3  Building Technology II
This course examines how environmental factors affect building construction. Students will compare traditional and sustainable materials and energy systems to understand the implications of their design decisions. The course will focus on mechanical systems, the exterior envelope and the interior finishes. Prerequisite: ARCHDSN-210

ARCH-301 (Formerly A511)  0-10-5  Design V for Architecture and Landscape Architecture
This is one of two topical studios, occurring in the third year of the architecture and landscape architecture curriculum, which begins the five-term professional design sequence. This is a building-block studio which reinforces design principles learned in earlier semesters, while introducing students to increasing complexity in both program and construction type. Special emphasis is placed on the design and organization of exterior space as created by buildings, built elements and landscape elements. The primary philosophic underpinning of the studio is design within an ecological context, including a thorough introduction to the principles of sustainable design. Prerequisites: 5-year B.Arch. or BLA major; ARCH-211 or LARCH-207; grade of “C” or better in ARCH-202 or LARCH-202

ARCH-302 (Formerly A512)  0-10-5  Design VI for Architecture
This topical studio is an exploration of the integration between individual buildings and urban design. The course focuses on creating community within the city. Students investigate socio-cultural and environmental aspects of the city as they relate to architecture. The studio includes dis-
cussion of architectural history, theory and principles as the basis for the making of architecture and urban form.

Prerequisites: 5-year B.Arch major, AHIST-206, grade of “C” or better in ARCH-202

ARCH-309 (Formerly A541) 2-1-2
Structures I
This course presents an overview of structural materials and their properties and basic structural systems, and introduces the fundamental concepts of statics and strength of materials. Students engage in abstract analysis of structural elements and determine force systems, and experiment with basic principles as applied to simple components. The material includes vector analysis; properties of geometric sections; flexural and shear stresses; beam reactions; and diagrams for loading, shear and moment.
Prerequisites: MATH-103 or MATH-111, PHYS-101, ARCH-211

ARCH-310 (Formerly A542) 2-1-2
Structures II
This course continues the development of fundamental concepts introduced in Structures I. Students are introduced to the concepts of buckling, truss analysis, calculation of lateral forces and analysis of lateral-force effects as they impact the design of wind- and seismic-resistant structures, and preliminary foundation design.
Prerequisite: ARCH-309

ARCH-321 (Formerly A618) 3-0-3
Itineraries of Contemporary Architecture in Europe
During the period of the 1960s through the 1970s, architecture was both very radical and very expensive with only a few examples on the European landscape. Since the beginning of the 1990s, this has changed and Europe is showing strong signs of renewed vitality with an increasing number of outstanding buildings and bridges. This course will explore the different cultural, social, political and economic reasons associated with these changes in a variety of locations throughout Europe.
Corequisite: STUAB-300

ARCH-324 (Formerly A624) 1-4-3
Visualization: Experimental Modeling
This advanced digital elective course focuses on the direct correlation between digital techniques and the design process. Complex three-dimensional modeling, rendering, animation, design visualization and presentation are emphasized in the course methodology. Using a variety of softwares, students complete a series of exercises of increasing difficulty leading to a final project that demonstrates the culmination of the skills developed throughout the semester.
Prerequisite: ARCHDSN-208

ARCH-326 (Formerly A623) 1-4-3
Visualization: Advanced Modeling
This advanced, computer-aided design, elective course focuses on complex three-dimensional modeling, photo-realistic rendering and virtual reality; with an emphasis on using 3-D Studio Advanced modeling and rendering software.

Interactive media and digital imaging are introduced in order to increase the effectiveness of student presentations. Students complete a series of specifically designed exercises of increasing difficulty leading to a final project of the student’s choosing from a concurrent or earlier design studio.
Prerequisite: ARCHDSN-208

ARCH-371 (Formerly A619) 3-0-3
Design Theory: Special Topics
This upper-level course is organized to take advantage of faculty members’ expertise and the interests of the student body. All topics chosen require that students have completed basic courses in architectural history and theory, so that this course can focus on (1) an advanced analysis of theoretical texts in architecture, literary texts and buildings; and (2) an examination of architecture as a cultural discipline that seeks to accommodate contemporary human needs and natural situations.
Prerequisite: AHIST-306 or LARCH-411

ARCH-401 (Formerly A711) 0-12-6
Design VII for Architecture
Design VII is an elective studio available as an option within the professional design sequence. Students may customize their education by selecting a topical studio from a wide array of options offered by the School of Architecture. ARCH-401 options may include, but are not limited to: a study-abroad studio, a design-build studio, an experimental/theory-based studio, an interdisciplinary studio, a digital studio or a design studio within another discipline.
Prerequisites: grade of “C” or better in both ARCH-301 and ARCH-302; grade of “C” or better in LARCH-302 or INTD-302

ARCH-402 (Formerly A712) 0-12-6
Design VIII for Architecture
This tectonics studio will focus on the theories surrounding the materials and processes of making architecture. Students will investigate the inherent properties of building materials to understand their roles in informing and directing the design process. They will explore methods of structure, enclosure and assembly to analyze their effect on built form. Methods of technically precise, computer-generated representation, as learned in ARCH-408, Visualization II: Technical Documentation, will be studied as a means to communicate design intentions.
Prerequisites: AHIST-306, ARCH-310, ARCHDSN-208; a grade of “C” or better in both ARCH-301 and ARCH-302

ARCH-403 (Formerly A741) 2-2-3
Technology III: Lighting and Acoustics
This course is an introduction to interior lighting and acoustic design fundamentals and theory. It will explore concepts of light and lighting, their measurement and available technologies used in lighting design. Knowledge will be applied to the selection and integration of lighting fixtures into an architectural-design project. Principles of acoustics, acoustic properties of materials and building systems and their impact on architectural design will also be addressed. Class demonstrations will be used whenever possible.
Prerequisites: grade of “C” or better in either ARCH-301 or ARCH-302 and ARCH-211
ARCH-404 (Formerly A742) 2-2-3
Technology IV: Dynamic Systems
This course will present the basic theory and techniques associated with interior building mechanical and electrical systems including HVAC, power, plumbing, life-safety and fire-protection systems. Emphasis will be placed upon the integration of architectural and engineering design processes within the physical building, particularly the development of quantitative procedures that support the implementation of sustainable-design principles. This course will contribute to the development of system concepts for use in design projects.
Prerequisites: grade of “C” or better in either ARCH-301 or ARCH-302 and ARCH-211

ARCH-405 (Formerly A743) 2-1-2
Structures III
This course involves the application of principles learned in Structures I and II to the analysis and design of wood and steel structural elements. Students are introduced to the behavior and design criteria for the selection of members and connections, including the implementation of component standards and building codes in the design process.
Prerequisite: ARCH-310

ARCH-406 (Formerly A744) 2-1-2
Structures IV
This course involves the application of principles learned in Structures I and II to the analysis and design of concrete and masonry structural elements. Students will be introduced to the behavior and design criteria for the selection of members and connections, including the implementation of component standards and building codes in the design process. In addition, a comprehensive design project studies the integration of structure into a complete building of the student’s own design.
Prerequisite: ARCH-405

ARCH-408 (Formerly A622) 1-4-3
Visualization II: Technical Documentation
This course focuses on two-dimensional design communication and documentation utilizing AutoCAD software, while also providing exposure to third-party software to assist in the drawing-documentation process. Students are exposed to the AutoCAD commands and techniques that are most likely to be found in a professional office setting. Students have the opportunity to experience the process of producing a set of architectural working drawings in the digital environment, and to further their knowledge of professional construction documents. Costing and specifications will also be addressed.
Corequisite: ARCH-402

ARCH-409 (Formerly A610) 3-0-3
The Great American City
The American city is examined from multiple viewpoints — historical, theoretical and critical — and with respect to specific communities, as well as to general issues. Themes include the initial founding of settlements and their growth, the architectural character of the communities and how character relates to the socioeconomic and physical environments, and the contribution of all these factors toward the specific image or reputation associated with America’s best known or “most typical” cities and towns. Field trips vary by semester and are required.
Prerequisites: AHIST-306 or LARCH-411

ARCH-410 (Formerly A613) 3-0-3
Vernacular Architecture
This elective course provides the groundwork for the study of architecture built without architects or in some other way, unlike the buildings that comprise the standard architectural canon. Scholars estimate that 95 percent of buildings fall into this category. Depending on faculty expertise, focus will be on national and regional traditions, non-Western traditions or a combination of the two. Examples of vernacular architecture will be examined in the context of their materials, building technology, climate and culture.
Prerequisite: AHIST-206 or LARCH-206 or approval of the instructor

ARCH-411 (Formerly A605) 2-2-3
Architectural Photography/Portfolio
This elective course focuses on the development of photographic skills and architectural applications. Topics include description, representation and interpretation of existing architecture, and drawings and models for students’ portfolios.
Prerequisite: grade of “C” or better in ARCH-202, LARCH-202 or INTD-202

ARCH-413 (Formerly A841) 2-2-3
Experimental Structures
This elective lab/seminar course is an exploration into the architectural potential of form-active structures (including thin-shell, tensile-membrane and fabric structures), and new and alternative materials and methods of construction. Unlike conventional structures that rely on their internal rigidity, form-active structures rely purely on their geometric shape to carry loads, thus providing a base for experimenting with form to create innovative solutions for structural-design problems.
Prerequisite: ARCH-405

ARCH-414 (Formerly A844) 2-2-3
Experimental Materials
This elective lab/seminar course is a hands-on exploration into the mechanical properties and aesthetic potential of materials in the built environment. The course encourages experimentation with both new materials and non-traditional use of existing materials toward the full-scale production of architectural objects and building components. Implications of craft and technology underscore research and production. Students complete several smaller individual projects and a larger group project of longer duration.
Prerequisite: ARCH-309

ARCH-415 (Formerly A628) 1-4-3
Visualization: Multimedia
This interdisciplinary course focuses on Interactive CD-ROM design, Web page design and digital-video production.
Students begin by reviewing basic two-dimensional, design-communication concepts as a prelude to more complex projects involving various digital media. The course is primarily taught on the Macintosh platform and features software such as Adobe Premier, Macromedia Flash and Macromedia Director. Students create their own individualized final project as approved by the instructor.

Prerequisite: ARCHDSN-208 or GRAPH-202

ARCH-418 (Formerly A842) 3-0-3

Housing and Construction Technology

This elective seminar course explores interrelated issues of house, land and construction. Discussions and research center around how historical and cultural concepts of the home- and land-use have brought housing to its present condition, and how current concerns about land use and construction technologies might effect a change.

Prerequisite: ARCH-211 or LARCH-207

ARCH-420 (Formerly A632) 2-2-3

Building Preservation

This elective course, a combination lecture and lab format, focuses on the performance of materials and building techniques commonly encountered in the preservation of historic buildings. Using various methods and in accordance with the standards of the Historic American Buildings Survey (HABS), students graphically document a historic structure. Students then analyze the building by noting all components involved in the building's failure, before deducing a deterioration cause.

Prerequisites: ARCHDSN-208; ARCH-211, LARCH-207 or INTD-206; and ARCH-202, LARCH-202 or INTD-202

ARCH-421 (Formerly A631) 3-0-3

Historic Preservation

This elective course is an introduction to the preservation of the built environment, examining the history and philosophy of historic preservation, and how the discipline is practiced today. Students learn through lectures, case studies, class discussion, field trips and a research project.

Prerequisites: ARCH-211; AHIST-306 or LARCH-411; and ARCH-202, INTD-202, or LARCH-202

ARCH-422 (Formerly A703) 3-0-3

Theories of Architecture: Seminar

This seminar will focus on selected topics that characterize architectural theory during the “Modern” era — from the late 19th century to the present. As a historical survey of the fundamental principles which have shaped architectural thinking, the course will review, in a critical way, the major issues which have influenced both the meaning of and the practice of architecture during that time: the relationship of architects to their work and to the culture-at-large; the impact of technology and politics; and the spatial experience of a building. Theorists’ critiques of contemporary practice will be emphasized, and current theories will be explored in an attempt to clarify an approach to the study and practice of architecture.

Prerequisite: AHIST-306 or LARCH-411

ARCH-425 (Formerly A611) 3-0-3

Meaning in Architectural Ornamentation

This elective course raises some theoretical questions that are relevant to contemporary practice. How is ornament? How and why have attitudes toward architectural ornamentation changed through history? Is ornament essential to architecture? Lectures will be presented following a reconstructed chronology of theoretical topics; from the things (res materials) of which architecture consists; to the “rules” and “abuses” of classical ornament; to the role of imitation; to the effects of the Industrial and Post-industrial Revolutions on theories of ornament. The relationship between the forms and the materials of ornament will be examined in lecture and group discussions.

Prerequisite: AHIST-306 or LARCH-411

ARCH-426 (Formerly A636) 1-4-3

Habitat/Housing

Following the completion of Building Technology II, this lecture/lab course teaches students to work directly with the local Habitat for Humanity organization to renovate an existing urban house for a client. Concurrent with this process, students study social issues of urban housing and learn how they apply to building construction.

Prerequisite: ARCH-211 or LARCH-207

ARCH-427 (Formerly A640) 3-0-3

Construction Management

This elective course is an introduction to basic construction management concepts and practices geared toward architecture students. Students will study issues that include construction planning and programming, project control, construction supervision, insurance and bonds, inspection, purchasing and accounting, safety, labor relations and ethics in construction management.

Prerequisites: ARCH-202 or INTD-202, and ARCH-211 or INTD-206

ARCH-430 (Formerly A637) 1-4-3

Architecture in Education

Each student is teamed with a practicing architect and a classroom teacher to develop and carry out an eight-week program for a class of school children (elementary through high school). The emphasis is on hands-on activities and direct experiences (neighborhood walks, etc.) that introduce the children to the basic principles of architecture and the built environment. The program is in collaboration with the Foundation for Architecture, the Philadelphia Public School District, and local architecture firms.

Prerequisites: ARCH-202 or LARCH-202; WRTG-215; and the ability to travel to sites away from campus

ARCH-431 (Formerly A762) 0-2-1

Portfolio Presentation

This course focuses on the evaluation, documentation, layout and formal presentation of the student’s work. Writing and verbal skills are emphasized as an important aspect of presenting a portfolio. Various graphic techniques are introduced.

Prerequisites: grade of “C” or better in both ARCH-301 and ARCH-302 or LARCH-302; or grade of “C” or better in INTD-401
ARCH-432 (Formerly LA609) 3-0-3
Urban Landscape Design
This course examines the design of urban open spaces and the pedestrian realm as it is (in)formed by various theories of urban landscape design. The course examines in great depth issues such as nature in the city, function and programming, community and design, cultural landscapes and urban aesthetics. The goal is for students to develop their critical-thinking skills with regard to design theory and application.
Prerequisites: LARCH-411 or permission of instructor

ARCH-433 (Formerly A608) 3-0-3
History of Landscape Architecture
This elective course is an overview of the history of landscape architecture from ancient to present times, primarily focusing on Western civilization, with a summary of Eastern cultures. Geography, social culture, philosophy, artistic expression and environmental factors affecting land use provide the basis for study of each period. Site design and land-use patterns will be analyzed for function, aesthetics and the underlying influences that have affected the resulting layout of the land. Not for Landscape Architecture majors.

ARCH-434 (Formerly A614) 3-0-3
Water and Architecture
The rich architecture of public water in urban and rural contexts is a key to the cultural landscape. From the gravity systems of a Roman city, through the rich world of medieval water, and concluding with water powered by outside energy, we will study Western, Arab and Asian water systems. Through architecture, the course will link the technology of water cycles, purity, collection and storage with the aesthetics and rituals of culture.
Prerequisite: SOC-2XX

ARCH-501 (Formerly A811) 0-12-6
Design IX for Architecture
This comprehensive course demands that students work in teams integrating constructional, structural and environmental systems in the design and documentation of a large and complex building. Students research building type and systems precedents and their resulting impact on built form, analyze material properties, specify component building systems and apply codes and standards to fulfill technical, programmatic and aesthetic needs.
Prerequisites: ARCH-403 or ARCH 404; ARCH-405, grade of "C" or better in ARCH-402

ARCH-502 (Formerly A812) 0-12-6
Design X for Architecture
This course requires comprehensive designs that articulate the physical, spiritual and theoretical, as well as demonstrate full resolution of technical aspects.
Thesis: Students select a design concentration (ARCH-591) requiring design exploration; development and testing of design proposals reviewed by faculty and thesis committee members.
Prerequisites: grade of “C” or better in ARCH-591 and ARCH-501

Faculty Directed Studio: Students choose from available studios and topics requiring individual research, programming, analysis and synthesis during development and design of a selected project, reviewed by faculty and invited professionals. Prequisite: grade of “C” or better in ARCH-501

ARCH-505 (Formerly A851) 2-0-2
Professional Management I
This course focuses on the nature of the architect’s practice by examining individual projects. Detailed studies of the legal, financial and management issues of individual projects will be studied. An examination of the project process, from development through construction is conducted, including administrative procedures, economic systems, codes, standards and regulations. The responsibilities of the various professional disciplines and of each participant’s goals and values are reviewed. Also covered are the requirements for professional registration.
Prerequisites: grade of “C” or better in both ARCH-301 and ARCH-302 or LARCH-302

ARCH-506 (Formerly A852) 2-0-2
Professional Management II
This course is a continuation of Professional Management I. It focuses on the nature of the architect’s practice by examining office typologies. Detailed studies of the legal, financial, marketing and management issues associated with the different forms of office proprietorship are studied. The contractual and ethical obligations of the architect, particularly in response to client needs and safety, are examined. Codes, standards and regulations and their relationship to the different activities of practice are presented.
Prerequisite: ARCH-505

ARCH-511 (Formerly A845)
Technology V: Advanced Lab
A companion to ARCH-501: Design IX for Architecture, this lecture/laboratory provides a comprehensive analytic exploration of building systems and their impact on building design. Lectures, readings, discussions and design problems will frame the analysis, selection, design and coordination of building systems as integral to the architectural design and construction process and raise philosophical issues related to the consideration and application of technology.
Corequisite: ARCH-501

ARCH-591 (Formerly A810) 3-0-3
Architecture Thesis and Research
This writing-intensive course is the first of a two-semester sequence of independent research and design inquiry. Lectures, seminars and a faculty thesis advisor help inform student research and lead to the development of a comprehensive thesis document. The thesis document articulates a course of architectural exploration and includes a position paper outlining the architectural significance of the thesis study, programming, site analysis, case studies and other demonstrations of the student’s understanding of the thesis topic.
Prerequisites: grade of “C” or better in ARCH-402, and faculty committee review and acceptance of student’s portfolio, thesis intent and academic record
ARCHDSN-208 (Formerly A321)  1-4-3
Visualization I: Digital Modeling
The primary intent of this course is to establish the computer as an effective tool in the design and presentation process. The course will focus on two primary areas in this regard: visualizing design concepts in three dimensions and communicating those concepts in a manner consistent with studio level work. Each project will explore various methods of describing two and three dimensional objects and spaces.  
Prerequisite: grade of “C” or better in ADFND-102

ARCHDSN-210  (Formerly A341)  2-2-3
Technology I: Materials and Methods
This course focuses on the presentation of the technical factors of construction that affect a building’s structure. Students are introduced to and compare the nature and structural characteristics of the major construction systems of wood, masonry, steel and concrete. Structural principles, as well as building and zoning codes, are introduced and their influence on form and choice of materials is emphasized.  
Prerequisite: grade of “C” or better in ADFND-102

ARCHDSN-214  (Formerly A602)  2-2-3
Model Building
This elective course focuses on the visualization of ideas in three dimensions. Fundamentals of model building are studied from a perspective that stresses the relationship between the design process and the application of current model-building techniques. Assignments emphasize the development of skills necessary to construct models and the ability to budget for time and materials. Mock-ups, quick sketch models and final presentation models are stressed.  
Prerequisite: grade of “C” or better in ADFND-101

ARCHDSN-381  (Formerly A999)  0-0-3
Independent Study in Architecture, Interior Design, and Landscape Architecture
For further details, see general description of Independent Study in “Academic Policies” section.

ARCHDSN-493-494  (Formerly A791)  0-0-(3 or 6)
Architecture Internship I & II
A professional internship provides an opportunity for professional experience supporting application and further development of the knowledge gained in the classroom. Under faculty supervision, students work in positions related to the major, minor and/or career goal, develop learning objectives and complete reflective academic assignments. Students should be exposed to a broad spectrum of professional practice, particularly those not available in the academic setting, and are expected to make a professional contribution to their employer.  
Prerequisites: 2.5 G.P.A.; completion of 60 credits for ID or 90 credits if AR or LA; and permission of the Internship director. Additional requirements may apply. See “Internship Program ” section for further details.

AREAST-201  (Formerly L351)  3-0-3
Europe
A multidisciplinary study of European society, history and culture with emphasis on the 20th century. Through a variety of materials and approaches including fiction, visual sources, political commentary and cultural artifacts, this course will examine the rise of the European Community and the continuing conflict between ethnic, cultural and political forces in the region.  
Prerequisite: WRTG-101, HIST-11X

AREAST-202  (Formerly L352)  3-0-3
Latin America
A multidisciplinary introduction to Latin American history, society and culture through a variety of materials including literature, film, music, journalistic accounts and history with emphasis upon the 20th century. The course will emphasize the complex interplay between indigenous, Iberian and African influences in the forging of the continent’s past, present and future. Students will examine the roots of everyday and state violence, as well as the current controversies over “liberalization” and “market” economies.  
Prerequisite: WRTG-101, HIST-11X

AREAST-205  (Formerly L353)  3-0-3
East Asia
A multidisciplinary course examining the shifting relationship between “tradition” and “modernity” in East Asia. The course will explore such topics as kinship, gender relations and stratification systems in the Asian past and present. Students will investigate some of the different paths of development that Asian societies have followed in the last two centuries including communism and state-directed capitalism. The course will close with Asia’s increasing significance in the globalization of capitalism.  
Prerequisite: WRTG-101, HIST-11X

AREAST-208  (Formerly L354)  3-0-3
Africa
A multidisciplinary introduction to African civilization through a variety of sources including oral epics, film, music, literature, ethnographies, historical studies and visual materials with emphasis upon the 20th century. The course will investigate such topics as the cultural roots of African leadership, the enduring importance of family and community, the impact of the trans-Atlantic trade in human beings on African societies, the struggle to achieve a just, multi-ethnic society in Southern Africa, and the present continent-wide democratization process.  
Prerequisite: WRTG-101, HIST-11X

AREAST-210  (Formerly L355)  3-0-3
Middle East
The contemporary Middle East will be examined from an interdisciplinary perspective, including the region’s history, geography, politics, economy, religions and cultures with emphasis upon the 20th century. The course aims to promote an understanding of the social dynamics of this region, as well as to provide the basic tools for a better understanding of world events in general.  
Prerequisite: WRTG-101, HIST-11X
AREAST-220  (Formerly L356)  3-0-3
Great Britain: Study Abroad Preparation
An interdisciplinary study of Great Britain (England, Scotland, Wales and Northern Ireland) including social, political, economic and cultural issues with particular emphasis on the post-1945 period. Students will also learn how to understand cultural difference and to cope with culture shock. This course prepares students for study abroad programs in Great Britain. Open to all students.
Prerequisite: WRTG-101, HIST-11X

AREAST-226  3-0-3
Italy: Study Abroad Preparation
An multidisciplinary study of Italy including social, political, economic and cultural issues with particular emphasis upon the post-1945 period; attention is given also to Italy's role in Europe. The course also introduces students to how to learn a language and basic communication skills in Italian needed to cope with daily living in the society, with a special emphasis on issues relating to "culture shock" when living, working and studying in Italy.
Prerequisite: WRTG-101, HIST-11X

AREAST-227  3-0-3
South Asia
A multidisciplinary introduction to the Asian Subcontinent, including the countries of India, Pakistan, Bangladesh and Sri Lanka. The region's modern history, geography, politics, economies, religions, cultures and social issues are each discussed in an integrative manner. Regional popular culture, including modern music, literature and cinema, are also analyzed in order to help students understand the rapidly changing nature of this region today.
Prerequisites: WRTG-101, HIST-11X

AREAST-383  (Formerly L949)  0-0-3
Independent Study in Area Studies
See the statement on Independent Study in the “Academic Policies” section.

ARTH-101  (Formerly T771)  3-0-3
History of Western Art I
The evolution of Western painting, sculpture and architecture from pre-history to the 16th century is covered. A thorough foundation in art and ideas with special emphasis on styles is presented as inspiration for designers.

ARTH-102  (Formerly T772)  3-0-3
History of Western Art II
The evolution of Western painting, sculpture and architecture from the 16th century to the present is covered with the same emphasis on styles.

ARTH-314  (Formerly T773)  3-0-3
History of Textiles and Costumes
A multi-faceted survey of textiles and costumes from ancient cultures to the present, technical- and visual-design aspects of the textile arts, the influence of trade on design trends, styles in period costume and the sociological implications of dress are all incorporated.
Prerequisite: DSGNFND-203 or DSGNFND-423

BIOL-101  (Formerly L311)  3-2-3
Current Topics in Biology
(for non-science majors)
Explore contemporary biological topics that you hear and read about or that are part of your daily life and learn the fundamental scientific concepts that underlie them. Topics will cover molecules to cells and organisms to populations as well as inheritance, development, infectious disease and what constitutes well-supported science. The course utilizes projects, hands-on activities, online discussions, and group work to illustrate concepts.

BIOL-103  (Formerly L323)  3-0-3
Biology I
(required for Science majors)
The objective of this course is to gain an understanding of the cellular, molecular and genetic basis of life. Students will be introduced to the physical and chemical principles involved in biological processes, the microscopic world of the cell, regulation of gene expression and the laws that govern inheritance. This course and BIOL-104 and BIOL-104L Biology II are the introductory courses for science majors.
Corequisite: BIOL-103L

BIOL-103L  (Formerly L323)  0-3-1
Biology I Laboratory
This laboratory course reinforces the understanding of cellular, molecular and genetic processes learned in Biology I lecture. Exercises include microscopic examination of cells and tissues, biochemical analysis of enzyme activity, osmosis, cellular respiration and genetic investigation, including electrophoretic analysis of mutation.
Corequisite: BIOL-103

BIOL-104  (Formerly S212)  3-0-3
Biology II
(for science majors)
In this course students will apply the principles learned in Biology I to the structure and function of organisms. Physiological processes that will be examined include nutrition, gas exchange, transport and regulation of body fluids, chemical and nervous control, and reproduction.
Corequisite: BIOL-104
Prerequisite: grade of “C-” (1.67) or better in BIOL-103 and BIOL-103L

BIOL-104L  (Formerly S212)  0-3-1
Biology II Laboratory
(for science majors)
In this course students will apply the principles learned in Biology I to the structure and function of organisms. Physiological processes that will be examined include nutrition, gas exchange, transport and regulation of body fluids, chemical and nervous control, and reproduction.
Corequisite: BIOL-104
Prerequisites: grade of “C-” (1.67) or better in BIOL-103 and BIOL-103L
BIOL-201 (Formerly S218) 3-0-3
Human Anatomy and Physiology I
This course is the first of a two-semester sequence. This course will examine anatomical and physiological aspects of the following systems of humans: tissues, integumentary, musculoskeletal and neurologic. A close correlation between lecture and laboratory topics will be maintained. During lecture, both anatomy and physiology will be discussed however greater emphasis will be placed on the physiology of each system while during the laboratory session, greater emphasis will be placed on anatomy.
Corequisite: BIOL-201L
Prerequisites: grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

BIOL-201L (Formerly S218) 0-2-1
Human Anatomy and Physiology Laboratory
The A&P laboratory sessions will provide students with hands-on learning opportunities to help conceptually content discussed in lecture. During lab, students will work on problem sets, examine and dissect organs and/or anatomical models, use microscopes, perform basic physiological experiments, and examine cadaver specimens. During laboratory sessions of the first half of this two-semester course, emphasis will be placed on the anatomy of the relevant system.
Corequisite: BIOL-201
Prerequisites: grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

BIOL-202 (Formerly S219) 3-0-3
Human Anatomy and Physiology II
This course is the second of a two semester sequence. This course will examine anatomical and physiological aspects of the following systems of humans: sensory, endocrine, circulation, respiration, nutrition-digestion, excretion and reproductive. During lecture, both anatomy and physiology will be discussed. While some lab sessions will focus mainly on the anatomy of the current system, most laboratory sessions will involve physiological experiments to provide students with greater insight into the physiology of the current system. A close correlation between lecture and laboratory topics will be maintained.
Corequisite: BIOL-202L
Prerequisites: BIOL-201 and BIOL-201L

BIOL-202L (Formerly S219) 0-2-1
Human Anatomy and Physiology II Laboratory
The A&P laboratory sessions will provide students with hands-on learning opportunities to help conceptually content discussed in lecture. During lab, students will work on problem sets, examine and dissect organs and/or anatomical models, use microscopes, perform basic physiological experiments and examine cadaver specimens. While some lab sessions will focus mainly on the anatomy of the current system, most laboratory sessions will involve physiological experiments to provide students with greater insight into the physiology of the current system.
Corequisite: BIOL-20
Prerequisites: BIOL-201 and BIOL 201L

BIOL-204 (Formerly S213) 3-0-3
Cell Biology
This course focuses on both structure and function of cellular components. Cellular structure is investigated from the molecular level to macroscopic structures and organelles with the major emphasis on how these structures function to form a dynamic cell interacting with its environment. Cell growth, reproduction, and communication are discussed. Cells studies include single cells to those organized into tissues in multicellular organisms.
Corequisite: BIOL-204L
Prerequisites: CHEM-201 and CHEM-201L, grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

BIOL-204L (Formerly S213) 0-3-1
Cell Biology Laboratory
The purpose of this laboratory is to introduce the student to some of the procedures and techniques used to investigate cell structure and function, including use of the microscope, differential cell fractionation and biochemical exercises.
Corequisite: BIOL-204
Prerequisites: CHEM-201 and CHEM 201L, grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

BIOL-205 (Formerly S217) 3-0-3
Plant Biology
(writing intensive)
Students will study the diversity and evolution of plants, their structure, selected physiological processes, and current topics in plant biology.
Corequisite: BIOL-205L
Prerequisites: grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

BIOL-205L (Formerly S217) 0-3-1
Plant Biology Laboratory (writing intensive)
This laboratory course includes the examination of algae to flowering plants, and cells, tissues, and organs to whole plants. Plant species will be propagated by cloning and spore culture.
Corequisite: BIOL-205
Prerequisites: grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

BIOL-207 (Formerly S227) 3-0-3
Principles of Genetics
This course will consider Mendelian genetics and the contributions of other early research on our present knowledge. Included will be crossover consequences, gene mapping, sex linkage, statistical genetics, mutation, chromosome abnormalities and human genetics.
Corequisite: BIOL-207L, Prerequisite: grade of “C-” or better in BIOL-104 and BIOL-104L

BIOL-207L (Formerly S227) 0-3-1
Principles of Genetics Laboratory
This is the laboratory course which must be taken to complete the genetics requirement. The laboratory exercises use current techniques of DNA technology as applied to disease diagnosis, forensic determinations, and the isolation and structural examination of the DNA molecule.
Corequisite: BIOL-207, Prerequisites: grade of “C-” or better in BIOL-104 and BIOL-104L
BIOL-209  (Formerly S235)  3-0-3
Medical Botany
(plant intensive)
This course focuses on the use of plants and plant products in human health. Topics include a survey of plants and plant families with medicinal properties, their cultivation and conservation, physiological effects of plant extracts, plant-derived drugs, historical and cultural aspects of medicinal plant use.
Prerequisite: grade of "C-" (1.67) or better in BIOL-104 and BIOL-104L

BIOL-221  (Formerly S221)  3-0-3
Microbiology
This course provides an introduction to environmental, industrial, food and medical microbiology. An understanding of the methods by which microbes produce disease as well as interact with body surfaces to maintain human health is also discussed.
Corequisite: BIOL-221L
Prerequisites: grade of "C-" (1.67) or better in BIOL-104 and BIOL-104L

BIOL-221L  (Formerly S221)  0-3-1
Microbiology Laboratory
Laboratories are designed to complement and expand information from lectures. Students will gain experience in classical techniques used by environmental and clinical microbiologists for determining unknown bacteria and molds. Practical studies will also compare historical and current methods for physical and chemical removal of microbes.
Corequisites: BIOL-221
Prerequisites: grade of "C-" (1.67) or better in BIOL-104 and BIOL-104L

BIOL-303  (Formerly S236)  3-3-4
Histology
Histology provides students with an integrated perspective of how adaptations in physiology, biochemistry and morphology allow cellular organization into human organs and support systems. Laboratory studies will introduce students to abnormal embryology, which is the core of many aspects of disease, especially those affecting children. As well as analysis of prepared slides, students will learn to interpret and present normal histology/embryology in the form of "case histories."
Prerequisites: grade of "C-" (1.67) or better in BIOL-104 and BIOL-104L and junior status

BIOL-307  (Formerly S226)  3-0-3
Embryology
This course is an elective for students who have completed two semesters of Science-major Biology. It will consider animal embryology from gametogenesis (of sperm and egg) to organogenesis (development of organs) and specification. The course includes cytogenesis (development of cells) and morphogenesis (change in body form) of the developing embryo.
Prerequisite: grade of "C-" (1.67) or better in BIOL-104 and BIOL-104L

BIOL-312  (Formerly S215)  3-4-4
Biochemistry I
Biochemistry I introduces the student to protein chemistry, protein structure/function relationships, and basic enzymology. It also covers chemistry of carbohydrates and lipids with particular emphasis on human metabolism of these compounds. The lab section introduces some basic techniques used routinely in a biochemistry research setting including protein purification, enzyme kinetics, and carbohydrate chemistry.
Prerequisite: grade of "C" or better in CHEM-202 and CHEM 202L

BIOL-313  (Formerly S216)  3-4-4
Biochemistry II
Biochemistry II continues the metabolic theme of Biochemistry I with emphasis on nitrogen-containing compounds (amino acids, urea cycle, nucleotide biosynthesis). Also considered are biological membranes, transmembrane transport, and signaling. The course concludes with the biochemistry of polynucleotides (DNA and RNA) and protein biosynthesis and trafficking. The lab section continues the theme of Biochemistry I lab with studies on carbohydrate chemistry, lipid chemistry and handling of polynucleotides.
Prerequisite: grade of "C" or better in BIOL-312

BIOL-315  (Formerly S228)  3-0-3
Immunology
(writing intensive)
The objective of this course is to introduce students to the innate mechanisms by which the human body prevents infection, as well as those involved in specifically acquired immunity. Topics include the structural, functional and genetic aspects of a fully competent immune system that can successfully prevent attack by millions of microorganisms each day. Exploration of the many medical conditions which result from hyperactive- or impaired-immune responses including allergy, autoimmune, cancer and AIDS are studied.
Prerequisites: BIOL-221 and BIOL-221L

BIOL-371  (Formerly S220)  3-0-3 or 3-3-4
Selected Topics in Biology
This course provides an opportunity to explore topics in biology not developed in other courses. Examples include specialized areas of organismal biology, conservation biology, developmental, and molecular biology. Students may take this course more than once as the topics differ each time it is offered.
Prerequisite: grade of "C" (1.67) or better in BIOL-104 and BIOL-104L or permission of instructor

BIOL-391  (Formerly S231)  0-9-3
Research in Biology I
Independent research is taken under the guidance of a faculty member. The research will include a written proposal prior to initiation of the project, a literature search, experimental work, a written abstract and report upon completion of the semester, and an oral presentation of the work. Guidelines for approval and for final evaluation are available in the School of Science and Health office.
Prerequisite: permission of the dean
BIOL-392  (Formerly S232)  0-9-3  Research in Biology II  Continuation of BIOL-391.  
Prerequisites: BIOL-391, permission of the dean

BIOL-401  (Formerly S214)  3-3-4  Molecular Biology  
The first segment of this course deals with molecular genetics with emphasis on in-class experiments. This is followed by a detailed treatment of the molecular basis of genetics, involving the structure and functions of the DNA molecule, chromosome maps, etc. The course concludes with a seminar-type discussion of disease states that have been shown to be genetically linked.  
Prerequisite: grade of "C-" (1.67) or better in BIOL-104 and BIOL-104L

BIOL-407  (Formerly S229)  3-3-4  Comparative Vertebrate Anatomy  
A comparative study of the structure, function and evolutionary relationships of the major vertebrate groups.  
Prerequisite: grade of "C-" (1.67) or better in BIOL-104 and BIOL-104L

BIOL-409  (Formerly S230)  3-3-4  Cellular Analysis  
This course will teach fundamental methods of contemporary cellular and biotechnology. Laboratory exercises focus on microscopic, biochemical and molecular analysis of cells and cell structures.  
Prerequisites: BIOL-204 and BIOL-204L

BIOL-411  (Formerly S298)  3-0-3  Life Science Seminar  
The course covers recent advances in the biological and medical sciences by way of formal presentations and discussions involving both students and invited faculty. In addition, students will learn techniques for the preparation of a research project involving a literature search. Students will be required to carry out a research project and present a formal seminar on this work to their peers.  
Prerequisites: grade of "C-" (1.67) or better in BIOL-104 AND BIOL-104L and senior status

BIOL-493, BIOL-494  (Formerly S290, S291)  0-0-3, 0-0-3  Preceptorship I and II  
The preceptorship experience is designed to enhance the student’s knowledge, technical skills and problem-solving abilities within the biomedical science realm. These studies will be performed off campus under the supervision of biomedical professionals and other practitioners in the medical sciences, previously approved by the program director. Designed to be taken as summer classes between the sophomore and junior years. A minimum of 54-hours required, preferably as six, one-week periods of nine hours per week.

BLAW-301  (Formerly B421)  3-0-3  Business Law I  
Lecture, class discussion and case problems emphasizing legal principles on the following topics: the legal environment, government regulation of business, contracts, personal property, environmental liability as it relates to business transactions, bankruptcy, employment and human resources, and current legal issues. The legal environment as it impacts business decision making is addressed.

BLAW-302  (Formerly B422)  3-0-3  Business Law II  
Lecture, class discussion and case problems emphasizing legal principles on the following topics: agency; corporations; partnerships and joint ventures; commercial paper and real property; limited liability companies; international legal environment and current legal issues.  
Prerequisite: BLAW-301

BUS-101  (Formerly B301)  3-0-3  Survey of Business (non-business majors)  
This course is designed to provide the non-business major with a basic foundation in a broad range of business subjects including economics, organizations and human resources, accounting, finance, marketing, business law, ethics, cultural diversity and strategic management. It may be taken by non-business majors as a free elective or as the first course in the sequence for the business minor. This course may not be used by business majors to satisfy any curriculum requirement.

BUS-493  (Formerly B791)  0-0-(3 or 6)  Business Internship  
A professional internship provides an opportunity for professional experience supporting application and further development of the knowledge gained in the classroom. Under faculty supervision, students work in positions related to the major, minor and/or career goal, develop learning objectives and complete reflective academic assignments. Students should be exposed to a broad spectrum of professional practice, particularly those not available in the academic setting, and are expected to make a professional contribution to their employer.  
Prerequisites: 2.5 G.P.A., completion of 60 credits, and permission of the Internship director. Additional requirements may apply. See “Internship Program” section for further details.

CAD-201  (Formerly T122)  2-2-3  Computer-Aided Design  
This course focuses on increasing the student’s individual level of computer literacy through the exploration of the basic structure of the operating system, general Internet skills, and the fundamentals of 2D-image making and Web design programs. Course projects provide hands-on experience with Adobe Photoshop, Adobe Illustrator and Web design software.
CAD-204 (Formerly T126) 2-2-3
CAD for Fashion Design
Computer aided design is utilized in practically every segment of the fashion industry from concept board development to fabric design, technical drawing, designing and formulating digital presentations. Students learn state-of-the-art CAD software and gain skills utilizing them to prepare a variety of industry-related projects.
Prerequisite: DSGNFD-303, FASHDRW-207

CAD-206 (Formerly I342) 1-4-3
CAD I for Industrial Design
The course introduces students to computer-aided design with a focus on the industrial design processes. In an intuitive fashion, students create and refine designs using a solids-modeling software package. In order to recognize the critical role CAD plays in the development of designs, students will use designs created in design studio courses as the subject matter of the CAD activities. Design-control drawings, three-dimensional rendered drawings and perspective drawings will be the course’s output.
Prerequisite: INDD-102 or permission of the instructor

CAD-301 (Formerly T123) 1-5-3
Advanced Computer-Aided Textile Design
This course focuses on both the conceptual and technical aspects of digital portfolio presentation for the textile designer. Students will use interactive media to create both a CD-Rom portfolio and a personal Web site. Course projects provide an in-depth exploration of Adobe Photoshop, Adobe Illustrator, and multimedia-design software. Students must have a clear understanding of Adobe Photoshop and Adobe Illustrator.
Prerequisites: CAD-201 or permission of instructor

CAD-306 (Formerly I621) 1-4-3
CAD II: Digital Design Techniques
This course will build upon principles introduced in introductory CAD courses. It is primarily a laboratory course in which students will learn to take their early design concepts through to the final presentation using advanced digital design techniques. Students will use multiple digital design software packages across computer platforms with an emphasis on CAID packages such as NURBS modelers and animation software, as well as vector-based, desktop-publishing programs and bitmap-based programs.
Prerequisite: grade of “C” or better in CAD-206 or permission of the instructor

CHEM-101 (Formerly L312) 3-2-3
General Chemistry
(for non-science majors)
This course allows students to pursue further study of chemical issues as they relate to the consumer and to health. Students will become familiar with issues surrounding the use of everyday products such as laundry products, personal-care products, plastics, fibers and food additives. Also included are an introduction to organic chemistry, biochemistry and the chemistry of some health-related issues. Students should complete this course with an awareness of the complexities of the chemical structures in their daily lives and the issues involving their use and abuse, so that they may make more informed decisions.

CHEM-103 (Formerly L321) 4-0-3
Chemistry I
(required for Science and ISE majors)
An introduction to the fundamental laws and theories of chemistry, including the properties of matter, chemical reactions and stoichiometry, energy and thermochemistry, atomic structure, and the periodic table. Basic knowledge of algebra, geometry, and trigonometry is presumed. Students enrolled in MATH-099 may not take this course. This course is not recommended for students enrolled in WRTG-099 or READ-099 fundamentals courses.
Corequisite: CHEM-103L

CHEM-103L (Formerly L321L) 0-3-1
Chemistry I Laboratory
(required for Science and ISE majors)
This hands-on laboratory-based course highlights concepts covered in Chemistry I Lecture. Emphasis is placed on developing good laboratory and data analysis skills. Experiments include acid/base titrations, heat determination using calorimeters, and oxidation/reduction reactions.
Corequisite: CHEM-103

CHEM-104 (Formerly C112) 4-0-3
Chemistry II
(required for science majors)
Continuation of CHEM 103 Chemistry I. that provides an introduction to chemical bonding and molecular geometry, property of gases, intermolecular attractions, solutions, kinetics, chemical equilibrium, acids, and bases, and thermodynamics.
Corequisite: CHEM-104L
Prerequisites: CHEM-103 and CHEM-103L

CHEM-104L (Formerly C112L) 0-3-1
Chemistry II Laboratory
(required for science majors)
This hands-on laboratory-based course highlights concepts covered in Chemistry II Lecture. Analytical and data interpretation/presentation skills are honed through a series of experiments including aspirin synthesis and determination of vitamin C content.
Corequisite: CHEM-104L
Prerequisites: CHEM-103 and CHEM-103L
CHEM-201, CHEM 202  3-0-3
(Formerly C121, C122)
Organic Chemistry I and II
A two semester lecture series in the chemistry of hydrocarbons and their derivatives. Initial topics include the origin of organic chemistry, chemical bonding, the structure and properties of organic compounds and stereochemistry. This is followed by a detailed consideration of the structure, synthesis and reactions of all major families of organic compounds.
Corequisites: CHEM-201 and CHEM-202L
Prerequisite: CHEM-104 and CHEM 104L

CHEM-201L, CHEM 202L  0-4-1, 0-4-1
(Formerly C121, C122)
Organic Chemistry I and II Laboratory
Two semester laboratory companion course to Organic Chemistry lecture. Topics include practical instruction in basic organic chemistry techniques of purification, extraction, chromatography and spectroscopy; followed by representative experiments of the major organic functional groups.
Corequisites: CHEM-201, CHEM 202
Prerequisites: CHEM-104 and CHEM 104L

CHEM-214  (Formerly C123)  3-0-3
Bioorganic Chemistry
This course is a one-semester overview of organic chemistry and biochemistry for PA majors and open to those who meet the prerequisites. After introduction to different functional groups, the course provides a systematic study of the biologically important compounds, including amino acids, proteins, nucleic acids, enzymes, carbohydrates and lipids. Emphasis will be placed upon the structure, properties and functions of these compounds. The course will culminate in an overarching discussion of the intricacies of metabolism of some of these biomolecules.
Prerequisites: CHEM-104 and CHEM 104L, grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

CHEM-305  (Formerly C131)  3-4-4
Physical Chemistry I
Fundamental topics in thermodynamics are covered, emphasizing the first three laws of thermodynamics. Applications of these principles and chemical equilibrium to ideal gases, real gases, solutions and solids are discussed. Chemical kinetics is covered in detail. A brief examination of the field of chemical dynamics is included. Where appropriate, current research in these areas will be discussed. The laboratory will emphasize using chemistry techniques such as FTIR, UV-Vis, GC and computational programs to examine fundamental physical processes.
Prerequisites: CHEM-202 and CHEM 202L, PHYS-203 and PHYS-203L, and pre or corequisite MATH-213

CHEM-306  (Formerly C132)  3-4-4
Physical Chemistry II
Quantum mechanics is the fundamental theory underlying the description of atoms. It details how atoms can interact on the microscopic level. Quantum mechanics will be used to understand the observed spectroscopic properties of atoms and molecules. Statistical mechanics, which connects the macroscopic world of thermodynamics and kinetics with quantum mechanics, will also be covered. The laboratory is a continuation of CHEM-305 with an emphasis on spectroscopy.
Prerequisite: CHEM-305

CHEM-309  (Formerly C142)  3-3-4
Inorganic Chemistry
An advanced course in modern inorganic chemistry that covers structure and bonding, symmetry, thermodynamics and mechanisms; along with a systematic discussion of reactions and properties of representative main group and transition metal elements. This course will also illustrate some of the relationships between inorganic chemistry and other areas of chemistry, including biochemistry. The laboratory covers a variety of synthetic techniques and physical and analytical methodologies that are particularly applicable to inorganic compounds.
Prerequisite: CHEM-306

CHEM-323  (Formerly C193)  3-3-4
Instrumental Methods of Analysis
(writing intensive)
This course provides an overview of the variety of analytical and instrumental methods for quantitative and qualitative chemical analysis. Topics include gravimetric and volumetric analysis, ultraviolet, infrared, and visible spectroscopy, gas and liquid chromatography, and mass spectrometry. Laboratory sessions hone students’ analytical and critical thinking skills. Students are required to work on a group research project and present their findings at a local/regional scientific conference.
Prerequisite: CHEM-202 and CHEM 202L

CHEM-371  (Formerly C199)  3-0-3
Selected Topics in Chemistry
A study of a specialized topic and/or recent developments in one of the fields of chemistry. Sample topics might include theoretical organic chemistry, spectroscopy, photochemistry, stereo-chemistry and computational chemistry.
Prerequisite: CHEM-202 and CHEM 202L

CHEM-391  (Formerly C231)  0-9-3
Research I in Chemistry
Students interested in pursuing independent research in any field of chemistry or biochemistry under faculty supervision must submit a proposal to the dean of the School of Science and Health for approval at least two weeks before pre-registration. The research will include both literature search and experimental work in any current field of chemistry or biochemistry. At the end of the semester, students will be expected to do an oral presentation to the faculty during reading days and prepare a comprehensive written report as mandated by the American Chemical Society.
Prerequisite: permission of School dean
CHEM-392 (Formerly C232)  
Research II in Chemistry  
Continuation of CHEM-391  

CHEM-405 (Formerly C171)  
Advanced Organic Chemistry  
(writing intensive)  
An in-depth study of the factors that affect organic reactions such as solvent, energy, kinetic and steric factors. These are used to examine a variety of reaction mechanisms such as nucleophilic substitution, elimination, aromatic substitution and rearrangement reactions.  
Prerequisite: CHEM-202 and CHEM 202L  

CHEM-410 (Formerly C172)  
Polymer Chemistry  
Physical and chemical study of natural and synthetic polymers based on the mechanism of polymer formation, including such topics as stereochemistry, cationic, anionic and free radical polymerization reactions and the formation of stereospecific polymers by use of heterogeneous catalysts.  
Prerequisite: CHEM-405  

CHEM-417 (Formerly S431)  
Environmental Chemistry  
Environmental Chemistry will allow students to develop a general understanding of the role of chemistry and physicochemical concepts in the development, identification and solution of environmental problems. This course will provide the necessary background for conducting chemical analyses on water, air and soil samples. The skills learned in this course will be employed in learning more about the application of chemical principles in solving environmental problems.  
Prerequisite: CHEM-104 and CHEM 104L  

CHEM-418 (Formerly S443)  
Advanced Aquatic and Atmospheric Chemistry  
This course will allow students to become familiar with the chemistry of environmental issues confronting humankind. This course will not only expand on CHEM-417, but will emphasize real-world applications. These applications will be handled with the use of thermodynamics, kinetics, acid-base equilibria, redox reactions, complex formation and surface complexation, to name a few. The investigative and problem-solving techniques and the analytical skills learned in this class will be employed throughout the student’s lifetime, and are presently demanded by industrial, research and remediation firms.  
Prerequisites: CHEM-202 and CHEM 202L, CHEM-417  

COMM 300  
Shaping Communication: Text, Image and Sound  
(writing intensive)  
In this hands-on course, students will explore different means of creative expression and become savvier about how audiences are affected by messages in different media. Genres addressed may include song lyrics, blogs, journalism, poetry, documentaries, policy documents, fiction and creative nonfiction. Students will integrate their learning while studying a pressing contemporary global issue chosen by the faculty. A final multimedia project and exhibit will give students the opportunity to showcase their work.  
Prerequisites: WRTG-21X, SOC-2XX  

DIGD-206 (Formerly D323)  
Electronic Imaging  
This course will focus on the principles of raster and vector electronic imaging as a means to provide a solid foundation needed to succeed in the digital design field. This is a studio-based class with specific instruction in Adobe Photoshop, Adobe ImageReady and Adobe Illustrator.  
Prerequisite: ADFND-102 or DSGNFND-203 or permission of the Digital Design program director  

DIGD-301 (Formerly D511)  
Digital Design I  
This studio introduces students to a variety of two-dimensional digital-design issues including typography for the screen, kinetic type, two-dimensional composition and digital spatial-systems development. Students will be introduced to the basic concepts and strategies needed to create interactivity. Issues of navigation, information architecture and electronic publishing will be covered. This studio course will include a series of progressively more difficult and technically complex projects leading toward a longer and more in-depth final project.  
Prerequisites: GRAPH-202 or ARCH-202 and admission to the Digital Design program or permission of the Digital Design program director  

DIGD-302 (Formerly D512)  
Digital Design II  
This studio explores the principles and strategies involved in designing and producing effective interactive publications. Issues of navigation, digital ergonomics, information architecture, way finding, semiotics, symbolism and electronic publishing will be explored through a series of increasingly difficult and technologically demanding exercises leading toward a longer and more in-depth final project.  
Prerequisite: DIGD-301  

DIGD-305 (Formerly D704)  
Theory of Electronic Communication Seminar I  
(writing intensive)  
This seminar course provides students with a theoretical understanding of the role of the digital designer within the constantly evolving electronic marketplace. Issues of e-commerce, digital communication, electronic ethics and professional practice will be discussed. Special focus will be placed on how our existing culture has been, and is currently being, transformed in the digital world.
DIGD-307 (Formerly D625)  
Web Design
This course exposes students to conceptual and technical aspects of Web design. Information architecture, semiotics, storyboarding and site management are taught; in addition to learning technical skills in Web production software and HTML. Additional areas of focus include typography, color theory, composition and motion graphics for the Web. The final project requires the publication of a Web site that pushes the boundaries of traditional interactive media.
Prerequisite: DIGD-206 or approved equivalent

DIGD-310 (Formerly D627)  
Digital Photography
This course exposes students to the conceptual and technical aspects of digital photography. In addition to learning the details of how to make digital photographs, emphasis will be placed in exploring digital photography as an emerging media. The final project will consist of a series of photographs to be viewed in a gallery setting.
Prerequisite: DIGD-206 or approved equivalent

DIGD-312 (Formerly D628)  
Multimedia Design
This course exposes students to the conceptual and technical aspects of designing and creating interactive multimedia experiences. In addition to learning technical skills in multimedia authoring software, students will be encouraged to develop innovative forms of electronic content made possible by CD-ROM media. The final project of the students’ choosing will demonstrate their ability to create and develop interactive media in a cross-platform environment.
Prerequisite: DIGD-206, or approved equivalent, or permission of the Digital Design program director

DIGD-401 (Formerly D711)  
Digital Design III
This studio will explore the translation of three- and four-dimensional concepts of space into two-dimensional screen images, interactivity and animation. Students will be introduced to the theory and practice of 3D modeling/rendering and motion graphic production. The mediums of choreography, filmmaking, architecture, performance art and music will be discussed as potential sources of inspiration for creating innovative digital spaces and experiences. A series of increasingly complex projects will culminate in a more demanding final project.
Prerequisite: DIGD-302

DIGD-403 (Formerly D714)  
Web Production
This course will explore the Web markup languages, HTML, CSS and Java Script, required for advanced control of Web design. Students will be introduced to these languages through lectures, demonstrations and practical exercises. The focus will be on writing, testing and de-bugging the code and its appropriate application. A series of increasingly complex exercises will gradually build the student’s knowledge and understanding of these languages.
Prerequisite: DIGD-301 or DIGD-307

DIGD-405 (Formerly D629)  
Digital Video Design and Production
This course exposes students to the principles of digital-video design and production. Students will become versed in non-linear, video-editing software as a means to create effective digital-video presentations. A series of projects develop essential skill sets such as storyboarding, video capture, editing and composing. A final, student-defined project will demonstrate mastery of the conceptual and technical aspects of digital-video design and production.
Prerequisite: DIGD-206 or approved equivalent, or permission of Digital Design program director

DIGD-406 (Formerly D715)  
Actionscript and Lingo
This course will explore the multimedia scripting languages ActionScript and Lingo, required for advanced control of multimedia. Students will be introduced to these languages through lectures, demonstrations, and practical exercises. The focus will be on writing, testing and de-bugging the code and its appropriate application. A series of increasingly complex exercises will gradually build the students knowledge and understanding of these languages.
Prerequisite: DIGD-403

DIGD-415 (Formerly D630)  
3D Modeling
This course exposes students to the conceptual and technical aspects of three-dimensional modeling and virtual environments. Students will complete a series of specifically designed exercises of increasing difficulty leading to a final project of the student’s choosing. The class will cover the basic principles of 3D modeling and animation including polygonal and NURB modeling, texturing, lighting and animation.
Prerequisite: DIGD-206 or approved equivalent, or permission of Digital Design program director

DIGD-498 (Formerly D810)  
Interdisciplinary Capstone Project Preparation  
(writing intensive)
This course requires students to identify and analyze potential capstone projects through a number of lenses including technical feasibility, marketability and design potential. With faculty guidance, students will form interdisciplinary teams that reflect the specific requirements of the chosen capstone project. To complete this course, a project proposal must be submitted documenting the factors that will allow the development of a successful capstone project. Research and presentation skills are a major focus of this course.
Prerequisites: DIGD-302E-Commerce

DIGD-499 (Formerly D712)  
Digital Design IV Interdisciplinary Capstone Project
This capstone studio will develop the ability of the digital designer to successfully participate on an interdisciplinary team. Students from a variety of majors, already organized in the capstone preparation course, will collaborate to develop a final, working prototype of a product, service, experience or publication of their choice that synthesizes their knowledge and skills from the previous semesters. The students will develop a project that demonstrates innovation, marketability, and relevance within the larger community.
Prerequisites: DIGD-401 or DIGD-498
DRAW-101 (formerly T712) 1-5-3
Drawing I
Basic drawing experience to develop the understanding of form as applied to two- and three-dimensional space. The student works from nature, still life and the human figure in a variety of media; exploring qualities of line, texture, light and space representation. Students begin to explore subjects and develop ideas with application to the design majors.

DRAW-201 (formerly T713) 1-5-3
Drawing II for Graphic Design
Advanced drawing experiences continue the study of form and structure begun in Drawing I. In addition, students are encouraged to develop individual expression in a variety of graphic media. Drawing as a means of developing graphic ideas is stressed.
Prerequisite: DRAW-101

DRAW-206 (formerly T714) 1-5-3
Drawing II: Figure Drawing
In this course, students acquire special knowledge of the human figure and anatomy. A variety of media and methods of graphic representation are explored. Perceptual skills, as well as cognitive aspects of drawing the human form, will be studied. Live models, both clothed and nude; charts; skeleton model; and the self will be used as sources for study. Required for Fashion Design majors.
Prerequisite: DRAW-101

DRAW-301 (formerly I633) 1-5-3
Drawing: Design and Development
This is an advanced drawing course for designers of all disciplines who want to improve their ability to apply knowledge imparted in other courses to the development of designs. Wherever possible the subject matter of the students' design studio courses will be used as the subject matter for drawing exercises.
Prerequisite: DRAW-201 and INDD-207

DSGFND-103 (formerly T701) 1-5-3
Design Foundations I
This foundation design course explores the basic elements and principles of 2D and 3D form and their application in the design process. Line, shape, mass, space, texture and gray value are introduced as fundamental and interrelated components necessary in structuring solutions to problems in design. Projects are introduced which encourage students to express ideas in a visual/tactile context, while exploring the interaction of ideas and materials.

DSGFND-203 (formerly T702) 1-5-3
Design Foundations II
Color is introduced in this foundation design course with an emphasis placed on its practical application in the design process. Projects done by students, using a variety of media, will explore the interaction of color in design with both formal, biophysical and psychological implications and goals.
Prerequisite: DSGFND-103

DSGFND-303 (formerly T704) 1-5-3
Design Foundations III
In-depth studies emphasizing the use of color and varied media in both 2D and 3D forms are undertaken in this foundation course. The interrelationship of the elements and principles of design are addressed through solving a variety of visual problems. Processes of abstraction are explored in projects using a wide variety of media. Students will be expected to develop their abilities for critical analysis of their own work, as well as design processes and products in general.
Prerequisite: DSGFND-203

DSGFND-423 (formerly T729) 2-2-3
Design Concepts
Students develop basic design skills and gain confidence to utilize these skills as they relate to apparel design and merchandising. Trend forecasting research and presentation skills are emphasized. Vocabulary and concepts necessary for interaction with the fashion design community and the ability to assess quality design ideas, images and workmanship is critical for success in the buying and retailing of apparel. The course is an introduction and exposure to the process of forecasting and design. May not be taken by design majors.
Prerequisite: FASHMGT-101

ECBIO-101 (formerly S430) 3-0-3
Environmental Issues
In this course, students will explore the ecological, chemical, social, economic and political implications of critical global environmental issues including water pollution, pesticides, energy, acid rain, global warming, waste management, biodiversity loss and population growth. Alternative solutions proposed to address these experimental issues will be explored from multiple perspectives.
Prerequisites: BIOL-103, BIOL-103L

ECBIO-201 (formerly S238) 3-0-3
Biodiversity
The purpose of this course is to explore what is known about the abundance and distribution of all species on earth, what threatens and supports these species and what efforts humans have taken both in the United States and globally to destroy and conserve biodiversity. Genetic variability, demographic and population dynamics, environmental variation, economic value and legal status will be compared for the design of captive breeding programs, protected areas management and sustainable use alternatives.
Prerequisite: grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

ECBIO-207 (formerly S461) 2-2-3
Soils
This course examines factors of soil formation and discusses basic physical, chemical, ecological, and morphological soil properties that affect soil characteristics in managed and natural landscapes, as well as how important soil classification variables are influenced by these processes. This is an interactive lecture/laboratory course complemented by local field trips with emphasis on soils from pedon-to-landscape as resources for environmental quality.
Prerequisites: grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L
ECBIO-208 (Formerly S462)  2-3-4  
Local Flora
An introduction to regional native plants used in landscape architecture and ecological restoration. Characteristics, terminology, and keys used in identifying plants and plant families will be taught as well as sight recognition of common species. Other topics include plant growth, development and propagation, optimal habitats, and recognition of best management practices. Field work at local/regional sites constitutes a significant part of the course.
Prerequisites: BIOL-101, or grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L

ECBIO-301 (Formerly S233)  3-3-4  
Ecology
This course quantitatively measures the relationship between organisms and their environment at the population, community, landscape and global level. Critical ecological controversies will be explored. Field data for both flora and fauna will be collected, analyzed and presented following guidelines from professional scientific journals.
Prerequisite: BIOL-205 and BIOL-205L or ECBIO-208

ECBIO-302 (Formerly S234)  3-3-4  
Experimental Field Ecology
This course focuses on the historical, legal, ethical, economic and scientific foundation of the emerging field of conservation biology. Genetic, ecological and population analytical methods will be applied to case studies of conservation programs from around the world with an emphasis on research design critiques. Experimental design and statistics for field problems will be covered in depth. Students will design, implement, analyze and present their findings from an ecological field experiment.
Prerequisites: grade of “C” or better in ECBIO-301 and co-requisite STAT-301

ECBIO-316 (Formerly S465)  3-3-4  
Wildlife Ecology and Conservation
This course is an international overview of current strategies used for wildlife conservation of mammals, birds, fish and other vertebrate species. Population ecology, habitat, disease, foraging and behavior will be covered in depth. Students will research the historical, legal and economic foundation for current best-management practices. Through intensive field studies, students will compare and contrast scientific-field techniques used in wildlife management.
Prerequisite: grade of “C” or better in ECBIO-301

ECBIO-318 (Formerly S468)  3-0-3  
Urban Ecology, Restoration & Planning
Natural lands and natural systems occur in densely populated areas and because of the human impacts present vast challenges to the landscape architects and environmental planners who are entrusted with their protection and enhancement. This course studies in detail urban ecological systems, and the human impacts that shape them. The student will also be exposed to current restoration techniques, which are being utilized in the urban setting to restore natural ecological functioning to the city.
Prerequisites: SCI-101, or grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L, or permission of instructor

ECBIO-319 (Formerly S454)  3-0-3  
Oceanography
An introduction to the biological, chemical, geological and physical aspects of the ocean environment with particular emphasis on the importance of the oceans to human beings and the impact we have on them. Students may participate in an optional field trip highlighting estuarine/coastal biodiversity, aquacultural techniques and oceanographic sampling techniques.
Prerequisites: CHEM-104 and CHEM 104L, grade of “C-” (1.67) or better in BIOL-104 and BIOL-104L, or permission from the instructor

ECBIO-391 (Formerly S491)  0-9-3  
Research I in Environmental Science
Independent research is taken under the guidance of a faculty member. The research will include a written proposal prior to initiation of the project, a literature search, experimental fieldwork, a written abstract and report at the end of the semester and an oral presentation of the work.
Guidelines for approval and for final evaluation are available in the School of Science and Health office.
Prerequisite: permission of the dean

ECBIO-392 (Formerly S492)  0-9-3  
Research II in Environmental Science
Continuation of ECBIO-391.
Prerequisite: ECBIO-391, permission of the dean

ECBIO-409 (Formerly S463)  2-3-4  
Plant Field Ecology
This is an intensive field course focusing on identifying, evaluating characteristics and growth habits of native and non-native species from the coastal wetlands and salt marsh communities in Delaware and New Jersey to upland habitats in Pennsylvania. Urban microclimates, suburban development, biodiversity, impact of wildlife invasive species, habitat restoration and the nursery industry will be discussed.
Prerequisite: grade of “C” or better in ECBIO-301 or ECBIO-208

ECBIO-415 (Formerly S455)  3-0-3  
Natural Resource Management (writing intensive)
This course explores the existing state of the world’s natural resources including forests, fisheries, rangeland, soil, water, wildlife, air and energy. Management options for each resource will be explored in depth. Field trips will compare cost, impact and implementation of different approaches used by environmental agencies. Students will write and present a resource-management plan for a key issue.
Prerequisite: ECBIO-301

ECON-205 (Formerly E821)  3-0-3  
Macroeconomics
Introduction to the overall functioning of an economic system with a view toward understanding the factors underlying income, employment and prices on the aggregate level. Topics include monetary and fiscal policy with primary emphasis on the impact of international trade and policy implications.
ECON-206  (Formerly E822)  3-0-3  Microeconomics
Introduction to the principles underlying the behavior of business firms, resource owners and consumers within a system of markets. Introduces the theory of value and distribution and the implications of international trade on autarchy value and distribution.

ECON-305  (Formerly E843)  3-0-3  Money, Banking and Monetary Policy
Prerequisites: ECON-205, ECON-206

ECON-315  (Formerly E842)  3-0-3  Intermediate Price Theory
Analysis of the determination of prices with varying degrees of competition. Determination of wages, rent, interest and profit.
Prerequisites: ECON-205, ECON-206

ECON-381  (Formerly E899)  0-0-3  Independent Study in Economics
Intensive independent study of a chosen subject. The student is expected to read a substantial number of major works in the field and to prepare a critical, documented paper. See also the statement on Independent Study under "Academic Policies."
Prerequisites: permission of the faculty member and the dean of the School of Business Administration

ECON-401  (Formerly E864)  3-0-3  International Economics
The theoretical basis for international trade is examined, as well as the economic impact of such trade on participating nations.

ENGR-101  (Formerly EN101)  1-0-1  Introduction to Engineering
A seminar meant to introduce incoming students to the tools, skills, and abilities needed in engineering. Students will be exposed to basic concepts associated with the five engineering minor tracks: mechanical engineering, architectural engineering, environmental engineering, industrial and systems engineering and textile engineering. Incorporates brief projects to help the student do meaningful, major related work from the first semester.

ENGR-102  (Formerly EN102)  2-2-3  Engineering Drawing
This course introduces students to engineering drawing, descriptive geometry, design and problem solving. Engineering drawing is a graphic language that can convey, with exactness and detail, ideas from the design engineer to the fabricator. Thus, the emphasis of the course is on communicating design ideas through engineering drawings.
Prerequisites: MATH-111 or MATH-103

ENGR-104  (Formerly EN104)  3-0-3  Introduction to Computing
An introductory course which provides a coherent and comprehensive treatment of fundamental concepts of computer science. It describes how computing systems work and how they are applied to solve real-world problems. The main emphasis is on the design of algorithms and procedural abstraction. High-level, language-programming projects.

ENGR-210  (Formerly T205)  3-0-3  Introduction to Materials Science
Atomic theory and molecular bonding of solids, polymer structure and mechanics of materials for textiles are taught at an introductory level. Specific processing issues including additives, viscosity, transitions and morphology, are studied as well.
Prerequisites: MATH-111, CHEM 103 or permission of instructor

ENGR-218  (Formerly EN302)  3-0-3  Engineering Dynamics
Engineering dynamics describes the motions of particles and rigid bodies and the forces that accompany or cause those motions. Basic methods include Newton’s laws, the work and energy principle, and the impulse and momentum principle.
Prerequisites: ENGR-215, MATH-225

ENGR-301  (Formerly EN501)  3-0-3  Mechanics of Materials
Internal forces; stress, strain and their relations; stresses and deformations in axially loaded members; stresses and deformations in torsionally loaded members; stresses and deformations in flexural members; combined stresses; column analysis; statically indeterminate members; introduction to member design.
Prerequisite: ENGR-215
ENGR-302  (Formerly EN502)  3-0-3
Design for Manufacturability
The design process; interaction of materials, processes and design; economic considerations; design considerations for machining, casting, forging, extrusion, forming, powder metallurgy; designing with plastics; design for assembly; projects and case studies.
Prerequisite: ENGR-102
First offered Spring 2008

ENGR-303  (Formerly EN507)  3-0-3
Engineering Economics
This course is designed to provide the engineering student with the decision-making skills necessary to evaluate the monetary consequences of the products, processes and projects that engineers design. Decisions must balance economics, performance, aesthetics and resources. As the capital outlays may be significant and affect the productive potential of a firm over the long term, it is important to understand the time value of money. The course emphasizes calculations of present values, future worth, internal rates of return and replacement analysis. In addition to the specific financial concepts covered, the student will construct computer spreadsheets to do sensitivity analysis and generate graphs to enhance presentation skills.

ENGR-304  (Formerly EN503)  3-0-3
Operations Research I
Philosophy and techniques of operations research. Emphasis on elementary model building and concepts of optimization. Structure of problem solving; linear programming, transportation and assignment algorithms; game theory; network analysis, branch and bound theory.
Prerequisite: MATH-112, ENGR-305

ENGR-305  (Formerly EN505)  3-0-3
Engineering Statistics I
Fundamentals of probability and distribution theory with application to various branches of engineering; basic probability theory, discrete random variables, continuous random variables, independent random variables, covariance and correlation and linear combinations of random variables. Statistical decision theory including significance testing and estimation, confidence intervals, design and perform tests of hypotheses on population means, standard deviations and proportions.
Prerequisite: grade of “C” or better in MATH-112

ENGR-307  (Formerly EN507)  3-0-3
Engineering Statistics II
This course is a continuation of EN505 Engineering Statistics, and it is required for the BSISE and the BSE with minor in ISE. Application of statistical techniques to industrial problems; relationships between experimental measurements using regression and correlation theory and analysis of variance models; design of experiments with one and more than one levels; emphasis on inherent variability of production processes; control chart techniques and the use of exponential and Weibull models in reliability analysis; statistical process control.
Prerequisite: ENGR 505 Engineering Statistics.

ENGR-311  (Formerly EN504)  3-0-3
Fluid Mechanics
The fundamentals of fluid mechanics. Topics include fluid statics, control-volume analysis, the Navier-Stokes equations, similitude, viscous, inviscid and turbulent flows, boundary layers.
Prerequisite: ENGR-218, PHYS-203 and PHYS-203L
First offered Fall 2008

ENGR-322  3-0-3
Fundamentals of Electrical Engineering I
Analysis of circuits; transient and steady state phenomena; general analysis techniques. Fundamentals of direct and alternating circuits, transformers rotating machinery, electrical and electronic control and electrical energy.
Prerequisite: PHYS-203
First offered Spring 2009

ENGR-341  (Formerly EN648)  3-0-3
Organic Process Chemistry
This course will bring together tools, techniques and technologies that help chemists in research and production to develop more eco-friendly and efficient uses of current and emerging processes for sustainable production. The course will emphasize engineering practices that reduce or eliminate the use or generation of hazardous substances in the design, manufacture and application of chemical products, including specialty and fine chemicals.
Prerequisite: CHEM-104 and CHEM 104L

ENGR-403  (Formerly EN701)  3-0-3
Fundamentals of Electrical Engineering II
Fundamentals of electronic circuit design starting with a brief survey of semiconductor devices including diodes and bipolar and field effect transistors. The course continues with op-amp applications, including instrumentation and filter design. The use of digital logic is also explored. Throughout the course, practical considerations of circuit design and construction are covered.
Prerequisite: ENGR-322
First offered in Fall 2009

ENGR-489  (Formerly EN702)  1-5-4
Senior Design Project: Engineering
Application of engineering principles to solve a real-world problem. Student works as member of a team assigned to a problem in a manufacturing, processing, service, or government organization. The primary focus of the capstone engineering design project will be the discipline of their minor track. Student groups that include those with minors from the five different tracks will be formed so that the project is interdisciplinary in nature. The capstone senior design project will consist of a project that builds on engineering, business, ethics and social issues. Requires a professional written and oral report and this course will serve as the program’s major writing intensive course.
Prerequisites: Completion of at least nine credits in an engineering minor track and WRTG-21X
First offered in Spring 2010
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**FASHDES-211 (Formerly T918) Garment Structures**
This is the initial course in the fashion design technical studio sequence. Students also produce a sample book of various construction methods. From existing patterns, students produce garments and have the opportunity to redesign them through imaginative use of construction details.

*Note: A minimum grade of "C" will be required in order to continue in the design studio sequence. Admission into the Fashion Design Program. Fashion Industry majors need approval from FIM program coordinator.*

**FASHDES-213 (Formerly T920) Flat Pattern and Basic Construction**
This course covers the fundamentals of the flat-pattern method. Students will draft bodice, sleeve and skirt blocks to be used in creating various styles. Some patterns are cut and sewn in muslin to test fit and further enhance sewing skills. A sample book of flat-pattern techniques will be produced. In addition two ensembles will be designed and produced.

*Prerequisites: a grade of "C" or better in FASHDES-211. Admission to the Fashion Design Program. Fashion Industry Management majors need approval from FIM program coordinator.*

**FASHDES-250 (Formerly T940) Fashion Studies Abroad**
A “short course” that will enable students to study various aspects of fashion design, production and merchandising in a major region of the world. Through a series of lectures, guided tours and visits to couture and ready-to-wear establishments, design studios, retailers, production plants and museums, students will have the opportunity to experience a segment of the global fashion industry. Students will carry a journal and write about their own experiences abroad. A visual record of design inspirations will be required as part of the research assignments. Oral and written reports, including visuals, will explore the design and business practices of apparel firms. Students will also experience cooperative design and merchandising as a result of team assignments.

*Prerequisites: student must have a 2.5 G.P.A. and sophomore status in the Fashion Design, Fashion Industry Management or Fashion Merchandising program*

**FASHDES-311 (Formerly T921) Draping Design and Construction**
Students learn to drape basic bodice and skirt variations on standard industrial dress forms. Original garments are designed, draped and sewn using industrial machinery. Accurate patternmaking, sewing and attention to design fundamentals are stressed throughout the course.

*Prerequisites: a grade of "C" or better in FASHDES-213. Admission into the Fashion Design Program. Fashion Industry Management majors need approval from FIM program coordinator.*

**FASHDES-316 (Formerly T720) Fashion Design**
This course serves as an introduction to the key role played by fashion designers in the apparel industry. Students are exposed to the methods of research, development and illustration of original designs. This provides opportunities for the aesthetic and technical examination of designs and the importance of appropriate material choices. This course considers current market trends and design concepts as influences on merchandising. CAD skills are utilized in a variety of presentation aspects.

*Prerequisites: CAD-204, FASHDRW-207*

**FASHDES-322 (Formerly T291) Fashion Design Problem Solving**
This course focuses on experimental design and is a continuation of the foundation design sequence for Fashion Industry majors. Students are provided the opportunity to think creatively, to develop alternate approaches in problem solving and to select optimum solutions on a cost/aesthetic/materials basis. Through materials investigation, this course promotes the use of creative answers to the basic design problem of covering the body.

*Prerequisites: DSGNFND-303, FASHDRW-207, FASHDES-311*

**FASHDES-335 (Formerly T923) Advanced Patternmaking**
Students will manipulate basic blocks to develop original designs for various markets. Emphasis will be placed on industry standards as they apply to fit and proper construction techniques. One original design will include using a two-way stretch fabric.

*Prerequisites: "C" or better in FASHDES-311. Admission to the Fashion Design program. Fashion Industry Management majors need approval from FIM program coordinator.*

**FASHDES-337 (Formerly T922) Tailoring**
Students are introduced to tailoring techniques. Patterns for a tailored garment are drafted according to the industry’s standard sample sizes. Construction of garments on industrial machinery uses current production technology.

*Prerequisite: FASHDES-311*

**FASHDES-371 (Formerly T939) Special Topics in Fashion**
A topic of special interest to fashion students and faculty will be explored in a studio/lecture format. Topic will vary, to be chosen by the instructor.

*Prerequisite: will be determined by the subject of the course offered*

**FASHDES-415 (Formerly T925) Collection Development I**
A capstone course for senior fashion designers to develop and produce a portfolio of original designs. The collection is designed, merchandised and produced by the student in collaboration with the instructor and a visiting critic.

*Prerequisites: FASHDES-322, FASHDRW-207, FASHDES-316, grade of “C” or better in FASHDES-311. Admission into the Fashion Design Program. Fashion Industry Management majors need approval from FIM program coordinator.*

**FASHDES-416 (Formerly T926) Collection Development II**
Students will further develop the concepts from their original sources of inspiration from FASHDES-415, Collection
Development I, creating a cohesive collection of clothing. This is also an opportunity for the student who wishes to investigate designing for a different market from a new inspirational source.

Prerequisite: a grade of “C” or better in FASHDES-415

FASHDES-419 (Formerly T725) 1-5-3
Accessories
Fashion design majors work primarily in designing and executing garments. However, the area of accessories presents excellent opportunities for the creative designer. The accessories market (hats, scarves, belts, handbags and jewelry) is growing and is in need of creative and qualified talent. Accessories is an elective for the student interested in pursuing a career in this market and/or for the student who, as a designer, is interested in the creation and coordination of the total costume.

Prerequisites: DSGNFND-303, FASHDES-211

FASHDES-433 (Formerly T722) 1-5-3
Fashion Layout and Portfolio Development
This elective course provides fashion design students with a professional portfolio of original work showcasing their design abilities and illustration finesse. The concept of layout and design will be presented as it relates to newspaper advertisements, editorial illustration and brochure development. Various presentational techniques will also be addressed as an effective sales tool for seasonal collections.

Prerequisite: FASHDRW-207

FASHDES-441 (Formerly T924) 1-5-3
Couture Techniques
This elective teaches the various methods of creating and constructing a couture garment. Students will learn how to combine custom designing, flat pattern and draping, machine and hand skills to execute an ensemble of clothing in the style of selected couture designers.

Prerequisites: FASHDRW-207, FASHDES-311

FASHDRW-207 (Formerly T715) 1-5-3
Fashion/Figure Drawing
Students review basic forms of the figure in an anatomical, gestural and design sense. In a studio setting, students develop the skills and vocabulary of design room and presentation sketching by drawing from live models, developing designer croquis and technical drawings, exploring various media and rendering fabrics.

Prerequisite: DRAW-206

FASHDRW-317 (Formerly T716) 1-5-3
Fashion Illustration I
An elective for students who are interested in further developing their illustration skills and their applications in the field of fashion design. Students do extensive fashion model studies and develop several visual presentations related to concepts and techniques presented in class. Presentation techniques and portfolio presentation will also be addressed.

Prerequisite: FASHDRW-207

FASHDRW-319 (Formerly T721) 1-5-3
Fashion Illustration II
This sequel to FASHDRW-317 is an elective course designed to challenge and refine the fashion design student’s illustration skills as they relate to the professional job market. Extensive fashion-model studies will be combined with assignments similar to those found in today’s industry. Professional presentation skills and portfolio development will be emphasized.

Prerequisite: FASHDRW-317

FASHMTG-101 (Formerly T901) 3-1-3
Survey of the Global Apparel Industry
Survey of the apparel industry presents a comprehensive overview of one of the most dynamic industries in the world including marketing strategies, product-line development, pre-production and production processes, quality assurance, international sourcing, supply chain management and distribution strategies. This course investigates the application of technology in all areas of the operations of an apparel enterprise. Survey establishes the basis for further study of the apparel industry. The term project, which simulates the formation and operation of an apparel enterprise, provides a theoretical as well as a practical learning experience.

Prerequisite: TEXT-101

FASHMTG-201 (Formerly T917) 1-5-3
Garment Development
Students will have a basic understanding of garment construction combined with flat-pattern concepts. The use of industrial equipment and basic slopers will be utilized to produce a sample book of construction details and garments.

Any student who has received credit for FASHDES-211 or FASHDES-213 may not take this course.

FASHMTG-305 (Formerly T904) 3-2-4
Apparel Production
Basic operations in all segments of an apparel plant are studied from the initial receipt of raw materials through storage, inspection, marker making, spreading, cutting, sewing, pressing, warehousing, shipping and customer returns. Latest technological advances in each of these areas will be discussed with marker making performed on a Gerber Accumar 300 System. Inventory management, labor issues, ergonomics and relevant public policies are also studied.

Prerequisites: FASHMTG-101, FASHMTG-201 or FASHDES-211

FASHMTG-310 (Formerly T906) 2-2-3
Apparel Work Measurement
The fundamentals of rate setting, productivity measurement and methods analysis and improvements are studied. The use of standard data including methods-time-measurement, scientific operator training and similar industrial engineering techniques are covered. Learning tools, with emphasis on videotape, are studied and used. Laboratory work stresses practice by student.

Prerequisite: FASHMTG-305
FASHMGT-401  (Formerly T916)  3-2-4
Apparel/Textile Quality Assurance
This course will develop an understanding of the intricate interdependence of fiber content, yarn properties, fabric structure and applied finish required to produce saleable products offering to the purchaser “fair” value per dollar expenditure. Apparel Quality Assurance integrates the knowledge gained in textile, apparel, business and humanities courses to develop managerial talent in any “cut and sew” aspect of the fashion industry. Fall only.
Prerequisites: TEXT-301, FASHMGT-305 and STAT-201

FASHMGT-408  (Formerly T912)  3-0-3
Apparel/Textile Sourcing
(writing intensive)
Execution and delivery of a product in today’s apparel supply chain occurs within a global environment. Understanding the complexities in establishing and maintaining sourcing strategies is a critical element in a student’s portfolio of course work.
Prerequisite: FASHMGT-101 or FASHDES-316 and at least 21 credits in the student’s major.

FASHMGT-451  (Formerly T197)  3-0-3
Supply Chain Management in the Textile and Apparel Industries
This course covers the fundamental concepts of the textile and apparel supply chain management in a global context. The course includes topics of inventory management, network locations, supply chain integration, collaboration and information sharing in the supply chain, strategic alliances, international issues in supply chain management and the role of e-business. Emphasis is on the analysis of textile/apparel industries that are leaders in the market by excelling in the integration of their supply chain. The students will apply these concepts in a final project using supply chain management software (EXACT software-existing- and LOGWARE software-provided with the text book.) to analyze the supply chain of a textile or apparel company such as VF Corporation, Benetton, Nike, Li & Fung, Zara Corporation, etc.
Spring only
Prerequisites: STAT-201, FASHMGT-305

FASHMGT-499  (Formerly T909)  3-0-3
Apparel Merchandising Management
(writing intensive)
Management of the merchandising function in an apparel company, including the development of a product line, design coordination, costing, sample making, specifications, resource selection, forecasting sales and planning inventory levels, promotion and coordination with sales and production are included.
Prerequisite: WRTG-21X, FASHMGT-101 and completion of 90 credits with at least 21 credits in either the Apparel or Fashion core courses, or permission of the instructor

FINC-303  (Formerly B643)  3-0-3
Intermediate Financial Management
An in-depth study of financial analysis and planning, asset management and capital structures. Financial decision making is studied by means of finance cases. Computerized financial analyses are part of the course.
Prerequisites: INFO-101, FINC-308

FINC-308  (Formerly B642)  3-0-3
Financial Management
An introductory finance course that examines the role of the financial decision maker at the corporate level. Four basic questions are examined: the goal of the firm, investment decisions of the firm, financing decisions of the firm and dividend decisions of the firm. The technique of discounted cash-flow analysis is developed and emphasized as it relates to corporate financial decisions.
Prerequisites: ACCT-101 and STAT-202 or MATH-321

FINC-313  (Formerly B633)  3-0-3
Financial E-Commerce
This course focuses on electronic payments between businesses and between businesses and consumers. Topics include acceptance of electronic payment, security of electronic payment transfer, ensuring transaction integrity (detecting and correcting violation of electronic payment instructions — also referred to as “secure electronic transaction protocol”), exchange-rate calculations for foreign currencies and integrated Internet versus non-Internet payment systems.
Prerequisite: FINC-308

FINC-318  (Formerly B645)  3-0-3
International Finance and Development
An advanced course that explores the interrelations between the economic theory of growth/development and financial applications in the emerging countries.
Prerequisites: FINC-308, ECON-205, ECON-206

FINC-321  (Formerly B661)  3-0-3
Investments and Portfolio Management
The process of comparative security valuation analysis. Emphasis is on risk-return trade-off, principles of portfolio management and the process of security analysis.
Prerequisite: FINC-308

FINC-322  (Formerly B641)  3-0-3
Capital Markets and Financial Institutions
Explores depository and non-depository financial intermediaries; flow of funds into the money and capital markets.
Prerequisite: FINC-308

FINC-333  (Formerly B662)  3-0-3
Public Finance
Sources of public funds, taxation and the debt. Uses of public funds, budgets and the control of government expenditures.
Prerequisites: FINC-308, ECON-205, ECON-206
FINC-381 (Formerly B699)  0-0-3  
**Independent Study in Finance**

Intensive independent study of a chosen subject. The student is expected to read a substantial number of major works in the field, may be required to do primary research and must prepare a critical documented paper. **Prerequisites:** permission of the faculty member and the dean of the School of Business Administration.

FINC-411 (Formerly B663)  3-0-3  
**Finance Seminar**

In a seminar setting, drawing on the knowledge of the fundamentals and advanced concepts studied in finance classes, skills will be developed to become a better decision maker by learning how to integrate the various topics of finance. Through problem-oriented exercises, an appreciation of the importance and know-how of anticipating, recognizing and adapting to external forces in the decision-making process and organization will be developed. Finance as a functional area is dynamic, and emphasis will be placed on incorporating the most recent academic and practitioner literature, which is of theoretical and practical importance in the decision-making process. This challenging course is built around readings, finance cases, research papers and problem sets; and includes group and individual assignments and written and oral presentations. **Prerequisites:** senior status, pre- or corequisites: FINC-322 or ECON-305, FINC-303, FINC-321.

**Foreign Languages**

The offerings for this group seek to promote students' intercultural and international understanding. A student receives College Studies credit for only two offerings within this distribution group.

Students may choose Foreign Language courses or study a region and its cultures in the Area Studies courses. Students may take two sequenced Foreign Language courses, or take one course in Foreign Language and one course in Area Studies or take two courses in Area Studies. Students must take consecutive levels of the same foreign language to satisfy the foreign language requirements; for example, a student cannot take Spanish I and French I.

Students planning to study abroad should consult early with their advisors about how best to prepare in terms of the courses in this category.

Students who are unsure about which level of Foreign Language course they should register for can schedule a diagnostic assessment at the Language and Cultural Center (Search Hall, room 305). Native speakers of French, German, Italian, Japanese, or Spanish should sign up for a foreign language other than their own or arrange to take a challenge exam in their native language. If you studied a foreign language in high school, please use the following guidelines to determine which college level courses to take:

- No previous study of a foreign language: 101 course
- Two (2) years of study or less: 101 course
- Three (3) years of study: 201 course
- Four (4) years of study: 301 course

Challenge exams in a foreign language can only be taken for those courses presently offered at the University. Because the College Studies program serves to broaden a student's global perspective, students who are native speakers of the languages presently offered must study another language or take area studies to fulfill this category.

**Beginning-level language courses are offered in the following:**

- FREN-101, FREN-201 French I and II (Formerly L343, L643)
- GER-101, GER-201 German I and II (offered infrequently) (Formerly L345, L645)
- ITAL-101, ITAL-201 Italian I and II (Formerly L346, L646)
- JAPN-101, JAPN-201 Japanese I and II (Formerly L341, L641)
- SPAN-101, SPAN-201 Spanish I and II (Formerly L342, L642)

In the Foreign Language I courses (-101), students learn vocabulary and grammar at the beginning level and are designed to provide students with a deeper understanding of the target language and of the cultures related to it. Students study newspapers and magazines in the target language to learn about current issues in countries where the target foreign language is spoken. **Prerequisite:** Grade of “C” or better in (-101) or a minimum of two years of high school language study or permission of the instructor.

**Intermediate-level language courses are offered in the following:**

- JAPN-301, JAPN-401 Japanese III and IV (Formerly L741, L841)
- SPAN-301, SPAN-401 Spanish III and IV (Formerly L742, L842)
- FREN-301, FREN-401 French III and IV (Formerly L743, L843)
- ITAL-301 Italian III (Formerly L746)

The Foreign Language III courses (-301) allow students to develop all four communicative skills (reading, writing, listening and speaking) to an intermediate level and to continue to learn culturally appropriate behavior in professional or social settings. These courses also use the interactive media programs and information literacy skills of earlier semesters to prepare oral presentations, as well as written and email correspondence with foreign professionals. **Prerequisite:** Grade of “C” or better in (-201) or a minimum of three years of prior high school foreign language study or permission of the instructor.

The Foreign Language IV courses (-401) allow students to develop all four communicative skills (reading, writing, listening and speaking) to an advanced intermediate level.
and to continue their study of politics, society, economics and intercultural understanding in the countries where the target language are spoken. **Prerequisite:** Grade of “C” or better in -301 or a minimum of four years of high school language study or permission of the instructor.

Independent study in a foreign language (HUMN-382) may be offered by individual appointment for students who wish to continue beyond the Foreign Language IV level.

**GRAPH-201 (Formerly G311) 0-8-4**

**Design III for Graphic Design Communication**

This course is an introduction to the methods, materials and vocabulary used in the communication design profession. This studio emphasizes form analysis, visual abstraction and structures in design. There is an introduction to typography and the use of the Macintosh computer as a design and production tool. Professional practices and presentations are stressed. **Prerequisite:** grade of “C” or better in DSGNFD-203 or permission of the director of the Graphic Design Communication program

**GRAPH-202 (Formerly G312) 0-8-4**

**Design IV for Graphic Design Communication**

This course introduces the development of image-making concepts and capabilities for illustration, with particular emphasis on the use of visual metaphor in symbols and signs. Both the computer and traditional means of design and production are explored. The course will introduce three-dimensional structures and systems, including the study of the Platonic solids. **Prerequisite:** grade of “C” or better in GRAPH-201 or permission of the director of the Graphic Design Communication program

**GRAPH-204 (Formerly G621) 1-5-3**

**Introduction to Photography for Graphic Design Communication**

This course is the required photography class for Graphic Design Communication majors. The course includes instruction in basic camera use, exposing and developing black-and-white film, and printing black-and-white photographs. Further study includes photographic documentation of work for portfolios in black-and-white and color transparency materials, use of the copy stand, and basic studio lighting techniques for both flat and three-dimensional work. There is an introduction to the 4x5 view camera and the digital camera through lectures and demonstrations. **Prerequisite:** DSGNFD-203 or permission of the director of the Graphic Design Communication program

**GRAPH-301 (Formerly G511) 0-8-4**

**Design V for Graphic Design Communication**

This course will introduce the student to typography through sequential studies to support the building of a visual vocabulary. These studies will involve a problem-solving approach to design, progressing from the simple to complex interplay of visual meaning and visual form. **Prerequisite:** grade of “C” or better in GRAPH-202 or permission of the director of the Graphic Design Communication program

**GRAPH-302 (Formerly G512) 0-8-4**

**Design VI for Graphic Design Communication**

This course will focus on the understanding and application of corporate identity through a system approach to design with application to various printed collateral. It will prepare the student to design a mark (symbol/logotype), stationery system and additional identity application, using systems approach throughout the process. A continued investigation of typography and its application will be studied. **Prerequisite:** grade of “C” or better in GRAPH-301

**GRAPH-305 (Formerly G641) 1-5-3**

**Exhibit Design and Signage**

This course adapts graphic design for three-dimensional structures. Study is made of structures and commercial systems available for product display, exhibit design and signage. Further consideration is made of the role of three-dimensional graphics in architectural settings. **Prerequisite:** grade of “C” or better in GRAPH-202 or permission of the director of the Graphic Design Communication program

**GRAPH-310 (Formerly G626) 1-5-3**

**Digital Imaging and Photographic Manipulation**

This course will focus on enhancing or manipulating photographic images in the computer. Students import their own images with a scanner or digital camera, and use Photoshop tools and filters to enhance, alter or manipulate the image for artistic or design purposes. Not available for Digital Design majors. **Prerequisite:** ARCH-202 or INTD-202 or GRAPH-202 or INDD-202

**GRAPH-320 (Formerly G637) 1-5-3**

**Package Design**

This course gives further exploration of 3D forms for use in package design. Additional study is made of the interaction of type and image on 3D objects. This includes the design of individual packages, clustered containers and consideration of point-of-purchase displays. **Prerequisite:** ARCH-202 or INTD-202 or GRAPH-202 or INDD-202

**GRAPH-341 (Formerly G644) 1-5-3**

**Illustration**

This course includes image making in a variety of techniques and media, including exploration of both computer design and traditional methods. Emphasis is placed on unity of concept and media, and effective use of visual translation and metaphor. **Prerequisite:** grade of “C” or better in DRAW-201 or permission of the director of the Graphic Design Communication program

**GRAPH-381 (Formerly G991) 0-0-3**

**Independent Study in Computer Graphics**

For further details, see general description of Independent Study in “Academic Policies” section. **Prerequisites:** GRAPH-301, GRAPH-310 and permission of the instructor
GRAPH-401  (Formerly G711)  0-12-6
Design VII for Graphic Design Communication
(writing intensive)
This course will focus on a multi-faceted project involving substantial investigation and realization of concepts. The character of the project will support a unified theme/concept/idea for an identified client that is geared to a specific market or interest group. Completed projects will demonstrate the student’s ability to use acquired knowledge, skill and understanding of design principles. The research and conceptual work in preparation for the following semester’s capstone project will be submitted for faculty review.
Prerequisite: grade of “C” or better in GRAPH-302

GRAPH-407  (Formerly G631)  1-5-3
Production Methods for Graphic Design Communication
This course studies traditional and computer-based methods for guiding publications from design stage to final printing and binding. Particular attention will be focused on the preparation of computer files for output at a service bureau, paper specification, color planning, trapping and press-checks. There will be field trips to service bureaus, printers and binders.
Prerequisite: grade of “C” or better in GRAPH-202 or permission of the director of the Graphic Design Communication program

GRAPH-408  (Formerly G634)  1-5-3
Advanced Publication Design
This course will focus on publication design and the continued development of projects with increased conceptual and physical complexity. The relationship between content and design format will be explored. The application of charts, graphs, tables and quantitative information will be investigated.
Prerequisite: grade of “C” or better in GRAPH-202 or permission of the director of the Graphic Design Communication program

GRAPH-499  (Formerly G712)  0-12-6
Capstone in Graphic Design Communication
Students develop projects independently and are required to demonstrate ability and understanding of communication design theory, process and principles. The final project requires research of topic, design exploration, development and final professional presentation. The syllabus also requires the development and presentation of a resume and a final portfolio of work selected from projects students have produced during their studies in the department.
Prerequisite: grade of “C” or better in GRAPH-401 and faculty approval or permission of the director of the Graphic Design Communication program

HIST-112  (Formerly L171)  3-0-3
Global Transitions
As environmental, political and business trends cause us to think increasingly in global terms, it becomes ever more important to understand the international trends and events which have shaped the modern world. This course will train students in historical thinking as they read, talk and write about processes of change, which have had a global impact during the past two centuries. Using a wide variety of sources, we will consider how changes such as industrialization, imperialism and mass-political movements have affected the lives of ordinary people and the distribution of power around the world. This course may be used to satisfy a College Studies requirement, but not free elective credits.

HIST-113  (Formerly L172)  3-0-3
The Forces of Technology
How has technology affected history and how have different cultures shaped the development of technology? This course emphasizes the themes of technology transfer between cultures, and its role in processes of industrialization and imperialism. Students draw their own conclusions using primary sources, historical text and current sources. This course may be used to satisfy a College Studies requirement, but not free elective credits.

HIST-114  (Formerly L173)  3-0-3
American Transitions
Students will become historians by asking questions about the changes wrought by the transformation of the United States from an agriculturally based, rural society to an urban, industrial and increasingly multi-cultural society in an interdependent world. This course will require students to read, write and speak about issues in the American past.
This course may be used to satisfy a College Studies requirement, but not free elective credits.

HIST-229  (Formerly L675)  3-0-3
The U.S.: The Recent Past
(writing intensive)
This course focuses on social, cultural, political and economic changes within the United States since 1945. Topics such as beatniks and hippies, the New Left, the civil rights movement, student and anti-war movements, the women’s movement, the politics of conservatism and the fate of labor will be studied in the context of an increasingly ethnically and racially diverse society. Students will be encouraged to explore and write from a wide range of sources from across the disciplines.
Prerequisites: SOC-2XX, WRTG-21X

HIST-320  (Formerly L672)  3-0-3
Industry and Work: Historical Perspectives
(writing intensive)
Work is a fundamental of human life. In this course, students will examine the changing nature and meaning of work in modern life, paying special attention to the ways in which industrialization transformed work. Students will approach this topic from several disciplinary perspectives, including history, sociology, psychology and literature.
Prerequisites: SOC-2XX, WRTG-21X

HIST-381  (Formerly H299)  0-0-3
Independent Study in History
Intensive research on a topic in history. Can be taken for College Studies credit. For further details, see general description of Independent Study in “Academic Policies” section.
HONOR-300  (Formerly U371)  0-0-(3-12)
Honor Study Abroad
This non-credit option allows a student to earn Honors credit while completing a semester in another country. Students interested in pursuing Honor Study Abroad work with their academic advisor and/or school faculty to prepare a proposal to study/observe a facet of the host country’s culture. Upon return to campus, students will offer a presentation of their observations to the campus community.

HONOR-355  (Formerly U361)  0-0-0
Honor Community Service
Students interested in pursuing Honor Community Service work with the Honors director and/or campus Community Service coordinator to: 1) identify a local service effort, and 2) prepare a proposal to earn honors credit. This is a non-credit option.

HONOR-380  (Formerly L689)  3-0-3
Honors: Junior Seminar (writing intensive)
This course offers an in-depth examination of a single topic for an entire semester. Topics would address an event, life, movement, idea, era or phenomenon. The faculty member guides students on an inquiry or explanation of a selected area of study that satisfies the Level II Interdisciplinary requirements in the College Studies curriculum.
Prerequisites: SOC-2XX, WRTG-21X

HUMN-215  (Formerly L383)  3-0-3
Evil and Good
A study of evil and good in art, literature, religion and philosophy; with attention to actual issues of evil and good in human social life. Concepts of evil and good in both Western and non-Western cultures will be surveyed. The course will also provide an introduction to strategies for ethical decision-making.
Prerequisite: WRTG-101, HIST-11X

HUMN-223  (Formerly L382)  3-0-3
World Philosophies
This course takes a comparative approach to the study of philosophy, investigating the nature of philosophical activity in diverse cultures. The central question addressed in the course is: “Is this the most reliable knowledge acquired through philosophical reasoning, scientific observation or religious devotion?”
Prerequisite: WRTG-101, HIST-11X

HUMN-381  (Formerly H399)  0-0-3
Independent Study in the Humanities
Intensive research on a topic that does not fall within a particular discipline in the humanities or that is interdisciplinary in nature. Can be taken for College Studies credit. For further details, see general description of Independent Study in “Academic Policies” section.

HUMN-382  (Formerly L959)  0-0-3
Independent Study in Languages
See the statement on Independent Study in the “Academic Policies” section.

IENGR-217  (Formerly EN304)  3-0-3
Human Factors Engineering
Application of ergonomics in engineering. The student learns about functional anatomy and physiology of muscle and skeletal systems and their relationship to work design. How to create job design, personnel assignment and work-rest scheduling based on physical work capacity and job demands.

IENGR-315  (Formerly EN616)  3-0-3
Operations Research II
Dynamic Programming; decision theory involving one stage problem; probabilistic models of operations research; inventory theory; Markov chains; queuing theory and simulation.
Prerequisites: ENGR-304, ENGR-307
First offered in Spring 2008

IENGR-328  (Formerly EN713)  3-0-3
Process Engineering
The process design function interaction with product design, and the responsibilities within a manufacturing organization. Selection and design of machinery, tools and methods. Computer-aided process design and interactive accessing of machining data and tooling elements of group technology and expert systems.
Prerequisite: ENGR-302
First offered in Fall 2008

IENGR-413  (Formerly EN711)  3-0-3
Simulation Systems
Procedures and rationale for planning, designing and implementing computer simulation experiments used to analyze human-machine systems in engineering, business and social sciences.
Prerequisite: IENGR-315, ENGR 307
First offered in Fall 2008
IENGR-414 (Formerly EN514)  3-0-3
Manufacturing Quality Control
Analysis of factors affecting product quality during manufac-
turing; process control charts; process capability studies;
error of measurement; sampling plans; motivation; pro-
grams; quality audit; organization.
Prerequisite:  ENGR-305
First offered Fall 2008

IENGR-415 (Formerly EN617)  3-0-3
Production Planning and Control
Inventory management, forecasting, production systems,
aggregate and workforce planning, production scheduling.
First offered in Spring 2009

IENGR-426  3-0-3
Supply Chain Modeling and Analysis
This course is a designated elective that can be selected as
one of the two required designated electives for the BSISE.
The course provides a broad introduction to many critical
facets of supply chain.  Students in this course will apply
industrial engineering tools learned through the curriculum
to design, analyze and optimize the supply chain such as,
mathematical optimization, inventory management, trans-
portation and network location, facilities planning and mate-
rial handling.  Then, more advanced topics are interrelated
such as the value of information sharing in the supply chain,
and customer value strategic alliances, international issues
and decision support systems.
Prerequisites:  IENGR-413, IENGR-419

IENGR-427 (Formerly EN717)  3-0-3
Facility Planning & Material Handling
Physical organization of work places and departments to
optimize objectives such as material movement, safety and
worker satisfaction.  Review of ISE methods for work-place
design and productivity measurement and economic deci-
smaking.  Computer solutions for layout problems and
mathematical models for location problems.
Prerequisites:  ENGR-305, ENGR-307
First offered Spring 2009

IENGR-428 (Formerly EN627)  3-0-3
Automatic Control Theory
Modeling of physical systems including electromechanical
systems.  Reduction of block diagrams.  Signal flow graphs
and Mason’s gain formula.  Response of second order sys-
tems:  natural frequency and damping ratio and how they
relate to rise-time, peak-time, settling-time and overshoot.
Stability and the Routh-Hurwitz criterion.  Steady-state error
and sensitivity.  Root locus.  Design of cascade compensators
using root locus and frequency response.
Prerequisite:  MATH-225
First offered in Spring 2009

IENGR-488 (Formerly EN714)  1-5-4
Senior Design Project:  Industrial Systems Engineering
Application of engineering principles to solve a real-world prob-
lem.  Students work as members of a team assigned to a prob-
lem in a manufacturing, processing, service or government
organization.  Requires a professional written and oral report.
Prerequisites:  IENGR-328, IENGR-326
First offered in Fall 2009

IENGR-488 (Formerly EN714)  1-5-4
Senior Design Project:  Industrial Systems Engineering
Application of engineering principles to solve a real-world problem. Students work as members of a team assigned to a problem in a manufacturing, processing, service or government organization. Requires a professional written and oral report.
Prerequisites:  IENGR-328, IENGR-326
First offered in Fall 2009

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First offered in Fall 2009

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Senior Design Project:  Industrial Systems Engineering
Application of engineering principles to solve a real-world problem. Students work as members of a team assigned to a problem in a manufacturing, processing, service or government organization. Requires a professional written and oral report.
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IENGR-488 (Formerly EN714)
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Application of engineering principles to solve a real-world problem. Students work as members of a team assigned to a problem in a manufacturing, processing, service or government organization. Requires a professional written and oral report.
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Application of engineering principles to solve a real-world problem. Students work as members of a team assigned to a problem in a manufacturing, processing, service or government organization. Requires a professional written and oral report.
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First offered in Fall 2009

IENGR-488 (Formerly EN714)
Senior Design Project:  Industrial Systems Engineering
Application of engineering principles to solve a real-world problem. Students work as members of a team assigned to a problem in a manufacturing, processing, service or government organization. Requires a professional written and oral report.
Prerequisites:  IENGR-328, IENGR-326
First offered in Fall 2009

IENGR-488 (Formerly EN714)
Senior Design Project:  Industrial Systems Engineering
Application of engineering principles to solve a real-world problem. Students work as members of a team assigned to a problem in a manufacturing, processing, service or government organization. Requires a professional written and oral report.
Prerequisites:  IENGR-328, IENGR-326
First offered in Fall 2009
INDD-205 (Formerly I351)  
Rendering for Industrial Design
An introduction to the traditional techniques and materials that industrial designers use to develop and represent three-dimensional concepts and ideas. Students become proficient in the use of pencils, markers, pastels and airbrush on a variety of media. Emphasis is placed on understanding the significance of color and graphic applications for industrial design. 
Prerequisite: DRAW-201 or permission of the instructor

INDD-207 (Formerly I322)  
Materials and Processes: Manufacturing
The second of a two-course sequence, this course is concerned with the exploration of materials used in the mass production of products, the processes used to shape these materials and the applicability of these materials to product-design solutions. Students should be prepared to visit a number of manufacturing facilities. A survey of rapid prototyping technologies completes the course. 
Prerequisite: grade of “C” or better in INDD-101 or E102

INDD-210 (Formerly I332)  
Ergonomic Studies
This course analyzes human factors as related to broad aspects of design development. It explores the issues of operator/user human factors and their impact on design. The outcome of this course will be to ascertain the relationship of basic human dimensions on product design. Subjects include systems reliability, sensory and motor processes, basic research techniques and anthropometric studies. 
Prerequisite: INDD-102 or permission of the instructor

INDD-301 (Formerly I511)  
Design V for Industrial Design
The fifth in a series of eight studios, this course focuses on ideas of designs derived from an understanding of consumer behavior. Emphasis is placed on user needs, ease of use and product culture, without ignoring the practicalities imposed by manufacturer’s markets, manufacturing process constraints and investment concerns. Students will demonstrate control of the process of design to develop meaningful concepts that employ appropriate technology for their eventual realization. 
Prerequisite: grade of “C” or better in INDD-202

INDD-302 (Formerly I512)  
Design VI for Industrial Design
In this sixth of a series of eight studio courses, students design and develop consumer products. Students learn about the complexities of the product-development process, during which assembly requirements, marketing issues, materials and component development all affect the initial intent of their designs. Students are required to fabricate a fully functional prototype of their designs. A selected team of professionals from the industry will evaluate the final product. 
Prerequisite: grade of “C” or better in INDD-301

INDD-304 (Formerly I532)  
Design History/Theory
This writing intensive seminar will serve as a forum for students to explore the context and scope of the practice of industrial design through readings, research, critical discussions, written presentations and papers. This course is intensive and incorporates a workshop component in which students will use various theoretical frameworks to examine their own attitudes and design work through papers and spoken/graphic presentations. 
Prerequisite: INDD-324 or permission of instructor

INDD-324 (Formerly I531)  
History of Design and Communication
This lecture course begins with industrialization and leads to the development of modern design and philosophy. Aspects of industrial design and graphic communication will be critically reviewed. Current design events will be studied interactively and discussed as a continuation of past design inquiries.

INDD-381 (Formerly I891)  
Independent Study in Industrial Design
For further details, see general description of Independent Study in “Academic Policies” section. 
Prerequisites: INDD-302 and permission of the instructor

INDD-401 (Formerly I711)  
Design VII for Industrial Design
The seventh in a sequence of eight studios, this course focuses on the development and expression of design ideas through the knowledgeable assembly of electronic systems and components. The purpose of this course is to familiarize students with technology as it applies to the practice of industrial design. It will focus on technology in three areas: expansion of human ability, augmentation and articulation in industry, and creativity and development enhancement. 
Prerequisite: grade of “C” or better in INDD-302

INDD-402 (Formerly I712)  
Design VIII for Industrial Design
The last in a sequence of eight studio courses, this course is entirely dedicated to the student’s capstone project. It is structured to simulate all aspects of client/designer dynamics, research requirements and project-management issues. Students secure a sponsor from industry or from the industrial design profession, choose the topic of the thesis and present the outcome of their project in a public forum. 
Prerequisites: grade of “C” or better in INDD-401 and concurrent enrollment in INDD-494

INDD-493 (Formerly I851)  
Professional Practice I
The first in a two-course sequence will address the business, legal and ethical issues in the practice of industrial design. It addresses vital business imperatives in the field of industrial design and such issues impacting on independent consultant design practice and corporate design staff activities. Through research, students begin a personal exploration of the different disciplines embraced by the profession.
Students begin networking with the profession to secure and negotiate commitments for their capstone project. This course is writing intensive.

**Prerequisites:** grade of “C” or better in INDD-302

**INTD-494 (Formerly I862) 2-2-3**

**Professional Practice II**
The second in a two-course sequence begins with management concerns related directly to the capstone project. Assignments serve to research project design solutions. The second half of the course focuses on presentation preparations for the capstone project, the integration of the project into the portfolio and the development of this portfolio in digital media. Students are exposed to various issues related to finding gainful employment.

**Prerequisites:** grade of “C” or better in INDD-401, INDD-493 and concurrent enrollment in INDD-402

**INFO-101 (Formerly B122) 2-2-3**

**Introduction to Information Systems**
The course provides an introduction to the principles of business information processing and the structure and operation of modern digital computers and networks. Included are practical applications and hands-on experience with a word processor, spreadsheets, database, presentation software and World Wide Web authoring software.

**INTD-106 (Formerly A123) 1-4-3**

**Technical Drawing and Graphic Representation**
Following one semester of drawing, this course focuses on the fundamentals of creative graphic representation. Specific topics of emphasis include the construction of orthographic and paraline projections including floor plans, elevations, sections, and one-point and two-point perspective.

**Prerequisite:** DRAW-101 and ADFND-101

**INTD-201 (Formerly A315) 0-8-4**

**Design III for Interior Design**
This studio introduces students to the elements, principles and theories of interior design within the framework of residential design. Students will explore conceptual, theoretical, functional and aesthetic issues, in addition to the organization and interrelationship of residential spaces, elements of enclosure, environmental behavior issues, symbolism and socio-cultural factors. The role of finishes, furniture, and equipment (FF&E) in defining a space and the experiential and intuitive nature of the design process will be emphasized.

**Prerequisite:** grade of “C” or better in ADFND-102 and INTD-106

**INTD-202 (Formerly A316) 0-8-4**

**Design IV for Interior Design**
Through structured, diverse, small-scale commercial design projects, this studio introduces students to the conceptual, theoretical, functional and aesthetic issues related to commercial interiors. The craft of making interior spaces, finishes, furniture, and equipment (FF&E) in defining a space and the experiential and intuitive nature of the design process will continue to be emphasized. This course uses research, writing and analysis to explore human behavior in commercial environments.

**Prerequisite:** grade “C” or better in INTD-201

**INTD-206 (Formerly A346) 2-2-3**

**Interior Building Technology**
This course focuses on construction and installation as it specifically relates to interior design. Students will be introduced to the nature and characteristics of interior detailing in relation to interior construction such as architectural woodwork, millwork, partitions, floors, ceilings, stairs, custom cabinetry, furniture and specialty elements. The influence of interior finish materials and textiles on interior form and detailing will be explored. Additional foci include environmental factors, building codes, accessibility requirements, fire safety, and materials regulations.

**Prerequisite:** ARCHDSN-210 and INTD-201

**INTD-208 (Formerly A601) 2-2-3**

**Presentation Techniques**
This elective course explores several types of rendering technologies for interior design and architectural spaces. It consists of discussion, demonstration and experimentation of freehand and drafted ink work, graphite, color pencils, markers, watercolors, pastels and various reproduction presentation methods.

**Prerequisite:** INTD-201

**INTD-210 (Formerly A351) 1-4-3**

**Color: Theory and Practice**
This elective studio explores the phenomena and meaning of color, based on appropriate theories of the physical aspects of color using pigment, light and space. Exercises examine what color is, why it is and how we see it. Additional foci include control of color interactions and distinguishing color differences. This course will provide the basis for color choices in a logical and sequential manner and will bridge the gap between theory and use.

**Prerequisite:** DSGNFDN-203 or grade of “C” or better in ADFND-102

**INTD-301 (Formerly A515) 0-12-6**

**Design V for Interior Design**
This studio focuses on mid-sized commercial and retail interiors. Within the context of a specific program and client, students develop conceptually strong and unique design solutions, integrate issues of technology and construction, and consider special population needs. Students learn to seamlessly integrate appropriate choices in finishes, furniture equipment (FF&E), lighting and basic building technologies in their designs.

**Prerequisite:** grade of “C” or better in INTD-202 or permission of the program director

**INTD-302 (Formerly A516) 0-12-6**

**Design VI for Interior Design**
This advanced studio emphasizes the resolution of complex design issues in the context of commercial and business interiors. Students analyze a program, ecological and environmental factors, develop a design concept, and proceed with a completed design that incorporates advanced technological and sustainable design principles. Holistic development of concept, sustainable design solutions, large-scale space planning, materials, construction details, lighting
design, building systems, building codes, handicapped accessibility and furnishings is emphasized in the completed design presentation.

Prerequisites: grade of “C” or better in INTD-301, and approval of the instructor or program director

INTD-305  (Formerly A745)  
2-2-3

Interior Building Systems

This mandatory course will focus on the understanding and application of a broad range of mechanical, electrical, lighting, acoustical, plumbing, HVAC, security and other building systems in the context of interior design. Students will be introduced to the nature and characteristics of fire detection, protection and suppression in building interiors. The critical role of interior building systems in establishing and maintaining the health, safety and welfare of users will be emphasized.

Prerequisites: INTD-206 and INTD-202

INTD-308  (Formerly A625)  
1-4-3

CAD II for Interior Design

Following CAD Visualization I: Digital Modeling, this required course focuses on two-dimensional design communication and documentation utilizing AutoCAD software for computer-aided drafting. Students will be exposed to AutoCAD commands and techniques, which are most likely to be used in a professional office setting. Students will have an opportunity to produce a set of interior-design working drawings and to further their knowledge of professional interior-design construction and specification documents.

Prerequisite: ARCHDSN-208, INTD-206, INTD-301

INTD-310  (Formerly A526)  
3-0-3

Textiles and Materials for Interiors and Architecture

This course introduces the role of textiles in the creation of commercial and residential interiors. Key topics include the selection, specification, and application of textiles based on their properties and performance criteria; sources of textiles and fabrics; the concept of sustainable resources; appropriate installation methods and maintenance requirements of textiles in interior applications; codes; regulations and standards related to use of textiles in interiors; and estimating material requirements such as carpeting, wallpaper, ceiling finishes.

Prerequisite: INTD-201 or permission of the instructor

INTD-311  (Formerly A616)  
2-2-3

Introduction to Set Design

This elective focuses on developing the setting for the action of a play. The set designer develops many of the same skills exercised by architects/interior designers: mastery of design fundamentals, understanding of time and place, knowledge of construction techniques, awareness of how people use space. Steps to creating the stage set will include: careful reading and discussion of selected plays, surveying an existing stage, assisting in the construction of a stage set and attending assigned performances.

Prerequisites: grade of “C” or better in both ARCH-301 and ARCH-302 or LARCH-302, or grade of “C” or better in INTD-302

INTD-325  (Formerly A615)  
2-2-3

Furniture Design

This beginning-level elective course is intended to provide students with a basic knowledge of the aspects involved in furniture design. The goal is to expose students to the various means through which one engages in product design. Emphasis is on the fabrication process in addition to prototyping, testing and revision. The course consists of readings, brief lectures, class discussions and studio projects that cover the range of information that designers need to know to be able to specify, design and evaluate furniture-related products for the built environment. A significant amount of class time will be devoted to the development, design and revision of projects.

Prerequisite: grade “C” or better in ARCH-201 or INTD-201

INTD-401  (Formerly A715)  
0-12-6

Design VII for Interior Design

This studio course explores the full range of contract design. Emphasis is on creating a corporate identity through the development of design concept. The semester-long project provides opportunities to analyze client, program and complex work environments. Students develop conceptual models, adjacency diagrams, complex space plans and 3-D modeling. Concept is further integrated into the design through the selection and design of materials, furniture and lighting. Industry standards are addressed and integrated along with building code requirements, accessibility requirements, and economic and maintenance issues. The semester-long project culminates in a detailed and complex final presentation.

Prerequisite: grade of “C” or better in INTD-302

INTD-412  (Formerly A753)  
2-1-2

Interior Professional Practice and Contract Design

In this seminar, the interior design student will analyze the specialized services performed by the professional designer by studying the administrative, legal, ethical and financial aspects of professional practice. Contract documents, specifications, safety standards and building codes will be studied within the context of a non-residential (contract) design project.

Prerequisite: INTD-206 and grade of “C” or better in INTD-302

INTD-428  (Formerly A633)  
2-2-3

Restoration/Rehabilitation Interiors

This is an elective lecture/lab course in which students work with period and historic spaces. The course introduces students to theories and techniques of adaptation and preservation of period spaces, preserving their historical integrity. The course will deal with applicable building codes, National Park Service standards of rehabilitation, designing within ADA guidelines, and use of appropriate materials and lighting.

Prerequisites: ARCH-211 or LARCH-207; AHIST-305 or LARCH-307; and ARCH-202, LARCH-202 or INTD-202

INTD-487  (Formerly A171)  
1-4-3

Interior Design Thesis Preparation

This course gives students the opportunity to assess their inclinations in the field and to select a project that address-
Knit Design Studio I (Formerly T540) 1-5-3  
Knit Design Studio I  
A knit design studio elective for Textile or Fashion majors specializing in the knit-design area. Original design ideas will be developed through swatch/sketch proposals suitable for sweater production.  
Prerequisite: A grade of “C” or better in KNIT-203

Advanced Warp Knitting (Formerly T553) 3-3-4  
Advanced Warp Knitting  
Covers all facets of warp-knitting technology with particular emphasis on the variety of machines and fabric construction in relation to end-use applications and markets. Tricot and raschel warp-knit fabric constructions are made in the knitting laboratory to illustrate the basic warp-knit stitches and lapping motions. A variety of warp-knit fabric samples are analyzed to illustrate basic fabric geometric parameters used in the design and production of warp-knit constructions. Also, students are required to research a unique warp-knit process/product.  
Prerequisite: KNIT-201

Advanced Weft Knitting (Formerly T503) 1-5-3  
Advanced Weft Knitting  
An exploration of the principles involved in knit design using CAD systems and electronic-knitting equipment. Students will design, write computer programs and knit their own fabrics on sweater- and jersey-knitting equipment. Fabric constructions such as Jacquard, links-links, cables, pointelle and presser-foot designs will be developed.  
Prerequisite: KNIT-203 or permission of the instructor

Introduction to Knit Design (for non-Textile Design majors) 1-5-3  
Introduction to Knit Design  
An elective course in which students may explore the development of knit design. Design ideas will be developed on hand equipment through to swatch/sketch proposals suitable for product design. Students can take this course as a single elective and develop design work suitable for inclusion in their portfolio or take further knit-design electives in order to further their skills.  
Cannot be taken as a replacement for KNIT-201.

Design IV for Landscape Architecture 0-8-4  
Design IV for Landscape Architecture  
The focus of this studio is sustainable large-scale planning and design. Students explore land-planning theories, methods and resources used in large-scale landscape analyses for sustainable settlement, preservation or management of the land. Natural, cultural and experiential data are integrated into the decision-making and design processes.  
Prerequisite: grade of “C” or better in ARCH-201

Graphics for Landscape Architecture 1-4-3  
Graphics for Landscape Architecture  
In this course, the student gains proficiency in various landscape architecture graphic conventions used in generating, evaluating and presenting design ideas. Included are principles and application of graphic language, color theory, diagramming, plan and section graphics, and oblique and perspective drawings.  
Prerequisite: DRAW-101 or permission of the director

History of Landscape Architecture I 3-0-3  
History of Landscape Architecture I  
This is the second course in a four-term sequence in the history of landscape architecture. This class surveys key examples of landscape architecture from the central, eastern and western United States.  
Prerequisites: grade of “C” or better in INTD-401 and INTD-487.
western regions of the world, produced from the 8th to the 19th centuries. Students acquire a working vocabulary for analyzing and evaluating the designed landscape through the study of natural and built landscapes, architecture and interior spaces, as well as painting and decorative arts. 

**Prerequisite:** AHIST-205 or permission of the director

**LARCH-207  (Formerly LA341)  2-2-3**

**Technology I: Grading**

This course focuses on the principles and techniques of landform manipulation for design and drainage. Students develop an understanding of contours, contour manipulation and site-construction methodologies. Topics include topographic and grading problems in landscape engineering: drainage plans, grading plans, spot elevations, road alignment, sections and profiles, and cut-and-fill calculations. 

**Prerequisite:** ADFND-102 or permission of the director

**LARCH-302  (Formerly LA512)  0-10-5**

**Design VI for Landscape Architecture**

This studio focuses on community design with the physical environment viewed as a catalyst for community enhancement and revitalization. Issues include community identification, social cohesiveness, social, economic and political factors, the role of open space in urban neighborhoods, and community safety and livability. Emphasis is placed on learning methods and techniques for developing physical-design solutions and implementation strategies when working with school, neighborhood and community groups. An important component of the experience is community participation. 

*First offered Spring 2006* 

**Prerequisite:** grade of “C” or better in LARCH-202

**LARCH-306  (Formerly LA550)  3-0-3**

**Design & Human Behavior**

This course provides an introduction to a range of viewpoints, concepts and characteristics of human behavior that should be considered during the design process. Cultural, social and psychological factors are examined. Various theories and methods of environmental assessment and design are studied that are based on an understanding of mutually supportive relationships between people and their physical environment. 

**Prerequisite:** LARCH-202 or ARCH-202 or permission of the director

**LARCH-307  (Formerly LA532)  3-0-3**

**History of Landscape Architecture II**

This course is the third of a four-term sequence of history/theory courses. It surveys key examples of landscape architecture from the mid-19th century to the present time. Students strengthen their vocabulary for analyzing and evaluating the designed landscape. Students are also introduced to the influential personalities, projects, events, concepts and thoughts that were pivotal in the philosophical and ethical development of the profession of landscape architecture. 

**Prerequisite:** LARCH-206 or permission of the director

**LARCH-310  (Formerly LA521)  1-4-3**

**GIS for Landscape Analysis**

This course is the second in a series of CAD-related courses that is specific to the profession of landscape architecture. Students are introduced to the software appropriate to representing landscape architecture, currently Land CAD and Geographic Information Systems. The intent is to represent grading, cut-and-fill calculations, terrain modeling, visual analysis, spatial modeling, resource management, site design and master planning. Specific software includes: AutoDesk Land Desktop, AutoDesk Map, ArcView GIS and CityGreen. 

**Prerequisite:** ARCHDSN-208 or ECBIO-301

**LARCH-401  (Formerly LA711)  0-12-6**

**Design VII for Landscape Architecture**

Design VII is a topical studio within the landscape architecture studio sequence. Students may customize their education by selecting a topical studio from several options. Optional topics may include, but are not limited to, brownfield redevelopment, co-housing development, waterfront redevelopment, community revitalization. Other studios that can be substituted for this studio include: a Study Abroad studio, a digital studio through the Digital Design program; an Architecture design-build studio; or an interdisciplinary studio with the Architecture, Industrial Design or Interior Design programs. 

**Prerequisites:** grade of “C” or better in ARCH-301 and LARCH-302

**LARCH-402  (Formerly LA712)  0-12-6**

**Design VIII for Landscape Architecture**

This studio course focuses on restoration management methodologies and ecological landscape design principles as they apply to a damaged urban landscape. Students explore restoration methodologies, how to determine values and make choices, while being cognizant of the costs and public perception. Techniques, practices and materials – both sustainable and conventional- are evaluated and then applied to a selected brownfield site in the Philadelphia area. 

**Prerequisites:** grade of “C” or better in ARCH-301 and LARCH-302; ECBIO-207

**LARCH-409  (Formerly LA741)  2-2-3**

**Technology II: Materials & Methods**

This course covers theories and practices of historic and cultural preservation as a component of a more comprehensive framework for environmental and resource management. Students study the importance of designating historic districts, buildings and landscapes, as well as accomplishing preservation goals, within the existing regulatory environment. Also covered are interpretive methodologies for understanding current cultural and social patterns and practices in the landscape, with an emphasis on sustainability. 

**Prerequisites:** ARCH-205 and LARCH-207
LARCH-411  (Formerly LA533)  3-0-3
Landscape Architecture Theory: Seminar
This course is the fourth in a four-term sequence of history/theory courses, explores the theories pertinent to the practice and study of landscape architecture. The major issues that have influenced both the meaning of and the practice of landscape architecture will be critically reviewed. Topics may include the history and theory of landscape architecture and their work to culture, technology, politics, stewardship, nature, the designed environment and people.
Prerequisites: LARCH-307

LARCH-412  (Formerly LA742)  3-0-3
Technology III: Urban Hydrology
Urban hydrology examines sustainable water resource issues as they relate to landscape planning and site planning and design within the urban or urbanizing context. This includes the theory and techniques associated with soil and water conservation – comprehension of the why, when and where that leads to sustainable planning or design strategies. Topics include surface water hydrology, stormwater runoff estimation, sustainable stormwater management techniques, watershed planning, flood routing and impact mitigation, and erosion and sedimentation control tools and regulations.
Prerequisite: LARCH-207

LARCH-501  (Formerly LA811)  0-12-6
Design IX for Landscape Architecture
This course is the sixth in a series of studios specific to the Landscape Architecture program curriculum. The scale of the project is at the site scale. Whatever the design problem, students must deal with the project from inception through construction documentation, including site inventory and analysis, research of appropriate precedents, formulation of concept/design ideation, analysis of various material options, and evaluation of the impact of the design upon the community and the physical environment. An appropriate body of theory and research, complemented by applicable case studies, will be selected and inform the design process. The theoretical framework will vary with the project type selected by the instructor. This course is closely aligned with LARCH-513 (Tech IV: Construction Documents).
Prerequisites: LARCH-207 and LARCH 409; grade of "C" or better in both LARCH-401 and LARCH-402

LARCH-502  (Formerly LA812)  0-12-6
Design X for Landscape Architecture
This course is the last in a series of studios specific to the Landscape Architecture program curriculum. Students work independently and select their own Capstone Project topic. The Capstone Project requires individual research, inventory and analysis, programming and design concept development through final design.
Prerequisites: LARCH-591; grade of “C” or better in LARCH-501

LARCH-506  (Formerly LA852)  2-0-2
Professional Practice for Landscape Architects
This course introduces the ethical, legal, and administrative issues and procedures encountered in numerous forms within landscape architecture practice. Topics include: types of practice, project management, the ethical and legal frameworks in which professional landscape architecture practice occurs, contractual documents, proposal preparation and fee structuring. The preparation of an effective resume and portfolio concludes the course.
Prerequisites: ARCH-505

LARCH-507  (Formerly LA808)  3-0-3
Cultural and Landscape Preservation
This course covers theories and practices of historic and cultural preservation as a component of a more comprehensive framework for environmental and resource management. Students study the importance of designating historic districts, buildings and landscapes, as well as accomplishing preservation goals, within the existing regulatory environment. Also covered are interpretive methodologies for understanding current cultural and social patterns and practices in the landscape, with an emphasis on sustainability.
Prerequisites: LARCH-306 or ARCH-421

LARCH-509  (Formerly LA809)  3-0-3
Social and Spatial Patterns
The moral necessity of providing people an urban environment in which to flourish is studied in relation to the physical, institutional and cultural environment. The role and functions of planning and design are examined for their critical contributions and limitations in accommodating a high quality of life.
Prerequisite: LARCH-207

LARCH-512  (Formerly LA609)  2-2-3
Landscapers/Urban Design
This elective course concentrates on site planning and design of exterior space, with an emphasis on site analysis, design development and many issues involved in the final phases of the design process. Topics include circulation, open-space design, site and building entrances, site materials for walls, paving and furnishings. Included is the installation of a portion of the design in a community urban area. Site visits are required, including some on Saturday mornings, for installation.
Prerequisites: LARCH-307

LARCH-513 (Formerly LA841)  2-2-3
Technology IV: Construction Documents
This is the final course of the construction technology series. In the major emphasis is the preparation of a complete set of technical construction documents with specifications and cost estimates. Specific topics include: site demolition, layout and dimensioning and specification writing. Students are to use the project developed in LARCH-501; therefore, the two courses are closely aligned.
Corequisite: LARCH-501

LARCH-515  2-2-3
Advanced GIS for Landscape Analysis
This is an advanced course in Geographic Information Systems (GIS). Students continue their studies in GIS applications appropriate to landscape analyses. GIS is an increasingly important tool for organizing digital spatial data...
in an accessible and logical manner for site design, recreation master planning, visual analysis, comprehensive planning, resource management and public advocacy.  
Prerequisite: LARCH-310

LARCH-521 3-0-3
Environmental Policy
Environmental problems are essentially social, economic and political problems. This course initially traces the evolution of United States environmental policy, legislation and regulations, including the background and context of environmental policymaking; the substantive problems and political process of environmental movements; and contemporary environmental thought with regard to issues of sustainability and environmental justice.  
Prerequisite: LARCH-310

LARCH-591 (Formerly LA810) 3-0-3
Research Methodology for Landscape Architecture
In this writing-intensive seminar, students are introduced to quantitative and qualitative research methods through lectures, discussions and assignments intended to promote independent methods of research and design inquiry. Students are to develop a well-articulated, conceptual framework for their thesis or capstone studio project, which includes their research topic, method of analysis, a literature review and detailed work plan.  
Prerequisites: Writing Seminar II and at least one Level II College Studies course

LIT-225 (Formerly L381) 3-0-3
Exploring World Literature
In this course, students approach culture as reflected in the worlds created by individual writers in their works. The course emphasizes close reading, critical analysis and frequent writing about assigned readings. This course may be used to satisfy a College Studies requirement.  
Prerequisite: WRTG-101, HIST-11X

LIT-310 (Formerly L682) 3-0-3
Caste and Class in Literature  
(writing intensive)
Using materials from literature, films, art, music and the media, students will examine and assess class and caste systems of past, present and future: their origins, how they develop, how they affect both their victims and those who profit from them, and how these issues relate to contemporary society. Content will vary depending on instructor.  
Prerequisites: SOC-2XX, WRTG-21X

LIT-311 (Formerly L683) 3-0-3
The Artist and Society in Literature  
(writing intensive)
An examination of the enigmatic figure of the artist depicted in literature (the short story, the novella and the novel). The genesis and complexity of artists as literary figures will be considered as they find themselves in conflict with society.  
Prerequisites: SOC-2XX, WRTG-21X

LIT-315 (Formerly L685) 3-0-3
Shakespeare and Contemporary Culture  
(writing intensive)
What role does Shakespeare’s writing play in popular culture today? How and why have modern filmmakers, artists and writers “reinterpreted” Shakespeare’s plays? Students read and discuss selected plays and examine various film adaptations of them. In addition to comparing different interpretations of Shakespeare’s plays to the originals, the course investigates some of the larger issues surrounding Shakespeare and contemporary culture.  
Prerequisites: SOC-2XX, WRTG-21X

LIT-320 (Formerly L686) 3-0-3
From Fiction to Film  
(writing intensive)
The study of the interrelationships between literature and film through case studies of the translation of significant novels (focus on 19th and 20th century) into works of cinema.  
Prerequisites: SOC-2XX, WRTG-21X

Mathematics

Quantitative Reasoning
As part of the College Studies requirements, students will take two courses in mathematics. The specific course sequence will be determined by the student’s major and the level of mathematics with which the student enters the University as demonstrated by previous coursework and/or placement testing. The two-course sequences are:  
MATH-100/101. Finite Mathematics and  
MATH-111. Calculus I or  
MATH-111. Calculus I and  
MATH-112. Calculus II

MATH-099 (Formerly M99) 3-2-(3)
Fundamentals of College Mathematics
This course covers those topics in arithmetic and algebra that are essential to further work involving mathematics. Students will study fractions, decimals and percentages, signed numbers, linear and quadratic equations, exponents and scientific notation, factoring, techniques of graphing, equations of straight lines and linear systems of equations. There will be an emphasis on applications. Use of the scientific calculator will be discussed. Credits earned may not be applied toward graduation requirements. Students must earn a “C” or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.”  
Students required to take MATH-099 must pass the course before taking CHEM 103, Chemistry I.
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<tr>
<th>Course Code</th>
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<td>(Formerly L130) Finite Mathematics</td>
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<td>(Formerly L135) Pre-Calculus</td>
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<td>MATH-103</td>
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<td>MATH-326</td>
<td>(Formerly M163) Modern Algebra</td>
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**MATH-100** (Formerly L130) **Finite Mathematics**
While the content of MATH-100 is identical to that of MATH-101, more time is devoted during the semester to the review and use of elementary mathematical operations. See MATH-101 for content.

**MATH-101** (Formerly L131) **Finite Mathematics**
An introduction to the concept of a mathematical model, with special emphasis on using functions to model problems in business and economics. The functions and their graphs that are studied (needed for MATH-103) include polynomials (esp. linear and quadratic), rationals, exponentials and logarithms. Applications are made to finance, including annuities. In addition, simultaneous linear equations, Gaussian-Jordan elimination, matrix algebra and linear programming are covered.

**MATH-102** (Formerly L135) **Pre-Calculus**
The fundamentals of college algebra, analytic geometry and trigonometry will be covered, with particular emphasis on those topics necessary for the calculus sequence.

**MATH-103** (Formerly L132) **Introduction to Calculus**
An introduction to the differential and integral calculus of polynomials, rational functions, exponentials and logarithms. Emphasis is placed on the use of calculus in the study of rate of change, determination of extrema and area under the curve. Not for Science majors. 
**Prerequisite:** MATH-100 or MATH-101 or MATH-102

**MATH-111** (Formerly L141) **Calculus I**
Functions, slope and rate of change, limits, derivations of algebraic functions, maxima and minima applications, indefinite integration, integration by substitution, sigma notation, area between two curves. Knowledge of algebra, geometry and trigonometric functions is assumed.

**MATH-112** (Formerly L142) **Calculus II**
**Prerequisite:** MATH-111

**MATH-213** (Formerly M113) **Calculus III**
Study of analytic geometry in 3D-space; algebra of vectors, differentiation and integration of vectors; partial differentiation, multiple integrals; infinite series. 
**Prerequisite:** MATH-112

**MATH-214** (Formerly M121) **Linear Algebra**
Theory and solution techniques for systems of linear equations; vectors, matrices, determinants; eigenvalues and eigenvectors; vector spaces; linear transformations. 
**Prerequisite:** MATH-112

**MATH-225** (Formerly M122) **Differential Equations**
First-order equations; constant-coefficient, nth-order homogeneous and non-homogeneous equations; special non-linear equations; elementary applications; power series solutions. May also include elementary numerical techniques for solutions of ordinary differential equations and other computer topics. 
**Prerequisite:** MATH-213

**MATH-316** (Formerly M125) **Partial Differential Equations**
How modeling physical phenomena leads to partial differential equations; the heat conduction, wave propagation and potential equations; classification of linear second-order equations; boundary-value problems; Fourier series; separation of variables and special functions. 
**Prerequisite:** MATH-225

**MATH-317** (Formerly M171) **Real Variables**
Study of topics related to functions of a real variable, including measure and integration; differentiation; abstract spaces; general measure and integration theory. 
**Prerequisite:** MATH-225

**MATH-318** (Formerly M173) **Complex Variables**
Study of analytical functions; Cauchy-Riemann equations; power series; infinite series; calculus of residues; contour integration; conformal mapping. 
**Prerequisite:** MATH-225

**MATH-321** (Formerly M141) **Probability and Statistics**
Fundamentals of probability, discrete and continuous random variables, probability distributions, hypothesis testing. 
**Prerequisite:** MATH-112

**MATH-323** (Formerly M143) **Mathematical Statistics**
This course is designed to give the student some of the background needed to pursue more advanced courses that use statistical techniques. The content of the course will include topics from probability theory that are necessary for an understanding of the mathematical foundations of statistics. These topics will include: probability distributions, likelihood functions, properties of expectation operators, moment-generating functions, the central-limit theorem, confidence intervals and hypothesis testing. The student will be expected to be familiar with the topics of calculus through multiple integrals. 
**Prerequisite:** MATH-321

**MATH-326** (Formerly M163) **Modern Algebra**
Study of sets and mappings; group, ring and field theory; homomorphisms and isomorphisms; Lagrange’s theorem; abelian and cyclic groups; symmetric groups; polynomial rings. 
**Prerequisite:** MATH-214
MATH-331  (Formerly M131)  3-0-3
Mathematical Methods in Chemistry, Physics and Engineering
This is an advanced course covering topics chosen from the following: matrix algebra, Fourier series, Sturm-Liouville systems, boundary-value problems for ordinary differential equations, Laplace’s equation, introduction to Bessel’s equation and Bessel functions.
Prerequisite: MATH-225

MGMT-301  (Formerly B165)  3-0-3
Organizational Politics and Negotiations
This is a course in organizational politics — power, influence, conflict and conflict resolution. It includes an in-depth exploration of topics such as organization, control, motivation, human resources and labor relations; and organization theory are studied. Lectures, readings, exercises and cases will be used.
Prerequisite: MGMT-301

MATH-311  (Formerly B176)  3-0-3
Organizational Behavior
The course includes an in-depth exploration of topics such as communication, group dynamics, group roles, team building, power and politics, leadership, and negotiation and conflict resolution. In addition, issues of organizational culture and diversity are examined. Through readings, discussions, class activities and projects, students learn how to be effective organizational communicators, team members and leaders. Students also gain an understanding of culture and diversity issues, and how to effectively manage them.
Prerequisites: MGMT-301, junior status

MATH-307  (Formerly B168)  3-0-3
International Management
Introduces students to the special aspects of managing a company in the global environment. Issues involved in understanding and applying the international and cross-cultural dimensions of the traditional management functions, such as organization, control, motivation, human resources and labor relations; and organization theory are studied.
Prerequisite: MKTG-102
First offered Spring 2006

MATH-305  (Formerly B148)  3-0-3
Apparel/Textile Brand Management
Brand building is an essential strategy for all successful companies in the apparel supply chain. Classroom instruction will focus on the techniques of brand growth. Case studies will be used as the foundation for a research project.
Prerequisite: MKTG-102
First offered Spring 2006

MENG-304  (Formerly EN624)  3-2-3
Machine Design
Kinematics and dynamics of machinery, including analytical kinematics, force analysis, cam design and balancing. Application of elementary mechanics of solids to analyze and size machine components for stress and deflection. Introduction to finite element analysis with emphasis on beam and plate models.
First offered in Spring 2008

MENG-407  (Formerly EN703)  3-0-3
Thermodynamics and Heat Transfer I
First offered in Fall 2009

MENG-427  3-0-3
Automatic Control Theory
Prerequisite: MATH-225
First offered Spring 2009

MENG-428  (Formerly EN628)  3-0-3
Thermodynamics and Heat Transfer II
Energy analysis; vapor and gas power cycles; vapor and gas refrigeration cycles; thermodynamic properties of mixtures and solutions; psychrometry and air-conditioning; reacting mixtures and combustion.
Prerequisite: MENG 407
First offered in Spring 2010

MGMT-301  (Formerly B123)  3-0-3
Principles of Management
Effective management is fundamental for the successful operation of all types of enterprises. The course will present the principles, techniques and concepts needed for managerial analysis and decision making. Functions highlighted include planning, organizing, staffing and controlling.

MGMT-309  (Formerly B135)  3-0-3
Systems Analysis
This course introduces the structured approach to design of new applications software, software systems, networks, and/or World Wide Web installations. It deals with the usual life cycle for such operations. Analysis includes approaches to specifying input and output, file structures, trade-off techniques, implementation, documentation, testing. Other approaches such as rapid application development and object-oriented analysis are discussed.
Prerequisite: MIS-202

MGMT-310  (Formerly B160)  3-0-3
Organizational Behavior
The course includes an in-depth exploration of topics such as communication, group dynamics, group roles, team building, power and politics, leadership, and negotiation and conflict resolution. In addition, issues of organizational culture and diversity are examined. Through readings, discussions, class activities and projects, students learn how to be effective organizational communicators, team members and leaders. Students also gain an understanding of culture and diversity issues, and how to effectively manage them.
Prerequisites: MGMT-301, junior status

MGMT-311  (Formerly B176)  3-0-3
Colloquium in Management
Consideration of selected relevant issues in management and society that are of serious interest to students and faculty, such as technology of the future, impact of data banks, management and public policy, planning systems, education and human resources.
Prerequisites: senior status, faculty recommendation and 3.5 or better G.P.A.

MGMT-315  (Formerly B165)  3-0-3
Organizational Politics and Negotiations
This is a course in organizational politics — power, influence, conflict and conflict management. It has two goals: first, to develop students’ skills in recognizing politics and conflict situations; and second, to teach students to use negotiating to achieve personal organizational goals. Through readings,
discussion and role-plays, a wide range of conflict and negotiating contexts will be considered. These include situations in interpersonal, interorganizational and union-management relationships.

Prerequisites: MGMT-301, junior status

**MGMT-316 (Formerly B184)** 3-0-3
**Health Services Management**
An analysis of the managerial process as it relates to the planning, organizing, staffing, directing and controlling of health care services. The techniques of effective decision making and problem solving are addressed. A systems orientation, as it applies to the health care services organization, forms the theoretical basis of the course. Only available in the evening.

*Note: For students in the B.S. for Health Services Management program. This course replaces MGMT-301 Principles of Management as a prerequisite for subsequent courses.*

**MGMT-320 (Formerly B162)** 3-0-3
**Human Resource Management**
This course surveys the roles, policies and procedures of human resource management (HRM) in organizations today. Students learn the steps to staff and motivate a workforce, and appreciate the role of quantitative and qualitative decision making in HRM. Course materials deal with environmental impacts on HRM, equal employment opportunity, human resource planning, selection, performance evaluation, wage and salary administration, training and other relevant topics.

Prerequisites: MGMT-301, junior status

**MGMT-326 (Formerly B144)** 3-0-3
**Total Quality Management Solving Methods**
The principles of Total Quality Management (TQM) are becoming the standards of practice for businesses. This course explores the history of TQM and the principles of Deming and the other major contributors to current TQM practices. How businesses use TQM principles to improve processes, products and services, involve all employees and gain a competitive edge will be studied. The application of TQM to a variety of industries will be explored.

Prerequisites: MATH-321 or STAT-201; MGMT-301; MKTG-102; pre- or coregistration in MATH-321 or STAT-201

**MGMT-327 (Formerly B187)** 3-0-3
**Emerging Issues in Health Care**
The purpose of this course is to explore the current trends in health care and issues affecting the organizational changes in the industry with regard to delivery of health care services in a wide variety of settings. Topics will include history of U.S. health care, current reform proposals, universal health care insurance, ethical issues, gerontological issues, labor relations and the changing workforce in health care and comparative perspectives of health care delivery in other countries. Only available in the evening.

Prerequisites: MGMT-301 or MGMT-316, junior status

**MGMT-331 (Formerly B147)** 3-0-3
**Compensation and Benefits**
This course is designed to provide participants with an understanding of the concepts, components and activities related to designing, implementing and administering a compensation and benefits program. The compensation policies of internal consistency, external competitiveness, employee contribution and plan administration will be examined in detail. Techniques explored are job analysis, job description, job evaluation, market surveying, pay policy-line derivation, incentive programs, planning and budgetary controls. Only available in the evening.

Prerequisite: MGMT-301

**MGMT-381 (Formerly B199)** 0-0-3
**Independent Study in Management**
Intensive independent study of a chosen subject. The student is expected to read a substantial number of major works in the field and to prepare a critical documented paper. See also the statement on Independent Study under "Academic Policies."

Prerequisites: permission of the faculty member and the dean of the School of Business Administration

**MGMT-401 (Formerly B141)** 3-0-3
**Operations Management**
A comprehensive survey of production and service operations management, topics and functions. Topics include methods and work measurement, materials management, plant location and layout, production planning and control, maintenance, quality control, “Total Quality,” Japanese management styles, “Systems Approach;” and decision tools such as PERT, linear programming, queuing theory, sampling and simulation. Service-delivery applications and activities are also highlighted.

Prerequisites: INFO-101, MGMT-301 and MATH-103 or MATH-111; pre- or corequisite: STAT-202 or MATH-321

**MGMT-405 (Formerly B149)** 3-2-4
**Apparel/Textile Supply Chain Management**
This course will bring into sharp focus the global relationship that exists between all of the elements of the textile-apparel-retail supply chain. Areas covered: traditional management functions of control over timeliness of production, and quality and labor relations in the global marketplace.

*First offered Spring 2007*

Prerequisite: FASHMGT-401

**MGMT-411 (Formerly B170)** 3-0-3
**Entrepreneurship Seminar**
The student assumes the role of the initiator and manager of a firm. Emphasis is on the required planning prior to the inception of operations and entrepreneurial problems in achieving cash-flow equilibrium. Each student is required to prepare a formal business plan. Interdisciplinary concepts are studied. May be used as a management elective.

Prerequisites: MGMT-301, MKTG-102, senior status
MGMT-412  (Formerly B172)  3-0-3
Management Seminar
This course is designed for senior management majors, and integrates and extends concepts learned in other upper-level management courses. The dynamic nature of management is emphasized through reading, analyzing and discussing recent literature in terms of the current business environment. Students examine topics including 21st-century career management; the role of education and technology in organizations; and future trends in management and organizations. The course includes individual and group readings, cases, and research projects that are presented as written and oral assignments.
Prerequisites: senior status, pre- or corequisite: MIS-202

MGMT-413  (Formerly B186)  3-0-3
Health Services Management Seminar
This course will examine advanced topics in health-services management. An atmosphere for shared learning is promoted by individual and group research in substantive areas relevant to the health-services industry. Only available in the evening.
Prerequisites: MGMT-428, MGMT-316

MGMT-416  (Formerly B145)  3-0-3
Training and Development
A course designed to provide students interested in the field of human resources with the knowledge and skills necessary to understand the processes of learning, training and development, and their applications in business and industry. Students will learn adult-learning theories, identification of training and program needs, and program design and evaluation. The course includes participative lectures and discussion, media techniques, case studies, role-play, team-building/group activities, games and simulations and instruction methodology. Only available in the evening.
Prerequisite: MGMT-320

MGMT-418  (Formerly B161)  3-0-3
Industrial Relations
This course investigates union-management relations in both private and public sectors. Students develop an understanding of the industrial-relations systems in the United States, including past and current changes, union and management responses to changes and the future of union-management relations. Students learn to appreciate bargaining, and increase their negotiating skills through discussing and applying collective-bargaining and other dispute-resolution techniques in a negotiation simulation.
Prerequisites: MGMT-301, junior status

MGMT-419  (Formerly B179)  3-0-3
Diversity Management
This course focuses on managing a diverse workforce, and how organizations can change systems, structures and practices to eliminate barriers that keep diverse workforces and organizations from reaching full potential. The course examines research and practice in diversity management on topics including interpersonal skills, training, evaluation, managerial practices, recruiting, retention, benefits and compensation. May not be taken if student completed this course as a special topics course, MGMT-311.
Prerequisite: MGMT-301

MGMT-428  (Formerly B183)  3-0-3
Health Services Delivery System
This course will provide an overview of the history, evolution and major components of U.S. health care systems. Systems theory will form the basis for this course. Topics covered will include the organization of health care services, the hospital, the physician, supply and demand in health care, third-party payers, the role of government, managed care and comparisons of health care systems in other countries. Only available in the evening.

MGMT-490  (Formerly B171)  3-0-3
Business Policy and Strategy (writing intensive)
The process and techniques of strategy formulation, implementation and evaluation are studied and applied. Case studies of domestic and international companies and not-for-profit organizations are used to integrate strategic management concepts with knowledge acquired in other functional area courses. Includes extensive written individual and team assignments and oral presentations. Students taking this course cannot take MGMT-491 for credit.
Prerequisites: senior status, INFO-101, MGMT-301, MKTG-102, FINC-308

MGMT-491  (Formerly B180)  3-0-3
Textile, Retail and Apparel Business Policy and Strategy (writing intensive)
The process and techniques of strategy formulation, implementation and evaluation are studied and applied as they pertain to the textile, apparel and retail industries. Case studies of domestic and international companies are used to integrate strategic-management concepts with knowledge acquired in other functional area courses. Includes extensive written individual and team assignments and oral presentations. Students taking this course cannot take MGMT-490 for credit.
Prerequisites: senior status, MGMT-301, MKTG-102, FINC-308, TEXT-101, FASHMG-101

MIS-202  (Formerly IS16)  3-0-3
Management Information Systems
This course is designed for future managerial end users of e-business information systems who will both use and manage information technology (IT). The course addresses the strategic, tactical and operational uses of IT in business for problem solving. Frequent computer assignments will complement the topics discussed in class as the student develops more sophisticated skills in databases design, implementing queries and reports, exporting data to spreadsheets and using spreadsheets and graphics to model businesses for decision making.
Prerequisite: INFO-101

MIS-207  (Formerly IS12)  3-0-3
Programming for Problem Solving
This course introduces an appropriate high-level programming language or languages and explores computer solu-
tions to business-related problems. The course will include techniques of problem definition, planning, writing well-structured programs, testing and debugging and documentation. Extensive practice will be gained in writing programs on the University’s computing equipment.

**MIS-301 (Formerly IS10)** 3-0-3
**Survey of Programming Languages**
This course will provide an overview of the basic structures and methodologies for the major functional and object-oriented programming languages. The course will discuss the different syntaxes of the language as well as their similarities. Languages will include C, C++, Visual Basic, Java and a review of the basic Internet languages.

**MIS-302 (Formerly IS74)** 3-0-3
**Information Systems Design**
The course deals with analysis and design of computer-based information systems. This includes definition of databases, measures of effectiveness and management-staff interfaces. This begins with an analysis of the situation and its particular needs before attempting a solution. Depending on the size and background of class members, students may form groups to develop projects of their own choosing or review case studies from engineering or manufacturing or service environments for analysis and design.

**MIS-304 (Formerly IS73)** 3-0-3
**Foundations of Artificial Intelligence**
Overview of the computational and knowledge engineering issues and techniques used in artificial intelligence, leading to the development of expert and fuzzy systems, including representations of knowledge, search strategies for production systems, rule-based deductions, heuristic programming, paradigms for synthesis and analysis of class systems, exact and inexact reasoning models, implementation examples from machine learning and natural language processing.

**MIS-305 (Formerly IS11)** 3-0-3
**Database Analysis, Design and Management**
This course will examine the design and use of databases. Most of the work will be done using relational-database management systems. Topics include database analysis and design using Entity Relationship modeling tools, design of well-structured relations (tables) and implementation of appropriate applications. Other models, such as object-oriented databases, will be introduced. In addition, the ethical collection, use and management of data, as well as security issues, will be addressed. Problems in actual database implementation will be assigned using the University’s computer facilities.

**MIS-312 (Formerly IS21)** 3-0-3
**Ethical and Social Issues of Computing**
This course provides an understanding of the ethical and societal issues associated with the computing field. Students will learn the responsibilities of a computer professional, the basic elements of ethical and social analysis and the basic skills for doing ethical and social analysis, with application to computing issues.
MIS-405 (Formerly IS52) 3-0-3 Programming In C
This course introduces fundamental principles of computer science as applied to problem solving. Main topics include problem specification and decomposition, design of algorithms, evolution of computers and computing, data and procedural abstractions, fundamental instructions, control mechanisms and modular programming. Programming projects in C.
Prerequisite: MIS-301 or permission of the instructor

MIS-406 (Formerly IS53) 3-0-3 Programming in C++
This course is the continuation of MIS-422 and introduces more advanced problem-solving techniques through the use of object-oriented techniques such as information hiding and code reuse, classes and data abstractions, single/multiple inheritance, operator/function overloading and polymorphism. More specifics include pointers, stacks, queues, linked lists, binary trees, linear/binary search techniques, recursion and sorting. Programming projects in C++.
Prerequisite: MIS-405

MIS-407 (Formerly IS14) 3-0-3 Project Engineering
The course provides a practical introduction to design and implementation of large- and small-scale projects. It will include a survey of current project procedural paradigms. When feasible, students will work in groups to develop a tangible product in an area of interest not previously defined. Such projects may involve software, industrial design, textile product development or other. Student groups will be expected to follow formal, project-management guidelines including creation and assignment of tasks, budgeting, critical-path analysis, reports, et al. Software support for projects will be utilized.
Prerequisite: MATH-103

MIS-411 (Formerly IS23) 3-0-3 Discrete Structures
Review of set algebra; study of mathematical reasoning; Boolean algebra and logic circuits; combinatorics; discrete probability; graphs; trees; recurrence relations; dynamical systems.
Prerequisite: MIS-301

MIS-413 (Formerly IS31) 3-0-3 Algorithms and Data Structures
Study of advanced programming techniques and data representations, including recursion, stacks and queues; packaging data abstraction; advanced searching and sorting; files; binary search trees; analysis of algorithms and computational complexity; advanced data structures. Programming assignments will be submitted.
Prerequisite: MIS-301

MIS-422 (Formerly IS51) 3-0-3 Applied Software Development
This is a second-level programming course offering students experience in planning, developing and testing short software projects. This course will be a continuation of MIS-207. Class periods will involve development methodology, software approaches and a structured walk-through for each project, as well as provide time for students to report on progress and discuss project approaches and problems. Computer languages and “script” currently undergo rapid development and change necessitating equivalent evolution of this course.
Prerequisite: MIS-207

MIS-425 (Formerly IS85) 3-0-3 Web Construction and E-Commerce Applications
This course will focus on the use of new and emerging technologies to create web-based designs and programs to support business and e-commerce applications. The course will require the completion of several program assignments and projects.
Prerequisite: MIS-301

MKTG-102 (Formerly B221) 3-0-3 Principles of Marketing
A basic course in which the main functions, institutions and concepts of marketing are studied. Attention is focused on providing an analytical and corporate framework for studying and understanding the marketing system within changing environmental forces.

MKTG-115 (Formerly B235) 3-0-3 Fashion Merchandising
A survey course that provides knowledge of the industries and services that comprise the fashion business. Interrelationships of the men’s, women’s and children’s industries are developed. An interdisciplinary approach to the fashion business as it relates to cultural, historical and economic features is a central theme.

MKTG-207 (Formerly B231) 3-0-3 Consumer Behavior
This course provides comprehensive understanding of the many dimensions of consumer behavior and the contributions of behavioral science to this discipline. The focus will be on marketing strategy implications.
Prerequisite: MKTG-102

MKTG-217 (Formerly B241) 3-0-3 Retailing Strategy and Structure
A comprehensive understanding of retail strategy in the dynamic retailing environment. Special attention is given to retailing structure since it underlies the strategic decision making of retailing management.
Prerequisite: MKTG-102

MKTG-302 (Formerly B237) 3-0-3 Product Development and Innovation
This course is designed to expose students to the concept of innovation and an understanding of the process of product/service development and innovative marketing. Students learn how a product is conceptualized and ultimately commercialized. They will understand the factors that play a central role in the process.

MKTG-310 (Formerly B240) 3-0-3 Marketing Communications
This course examines the vital role of marketing communications in the development of marketing strategy. Integrated marketing communications (IMC) is emphasized as students explore the use of advertising, personal selling, sales promo-
tions, Internet marketing, database marketing, public relations, etc., to enhance brand equity. The strategy and planning involved in the development of integrated campaigns are emphasized.

Prerequisite: MKTG-207

MKTG-315  (Formerly B233)  3-0-3
Marketing in an Electronic Environment
This course investigates the ways in which new technologies are changing the field of marketing. Major topics include Internet advertising, database marketing, sales-force automation and customer relationship-management software tools. Other topics include the impact of new technologies on distribution strategies, online pricing models, mass-customization strategies, data mining and media implications.

Prerequisite: MKTG-102

MKTG-318  (Formerly B243)  3-0-3
Sales Management
Sales management is the planning, direction and control of the selling activities of a business unit, including recruiting, selecting, training, equipping, assigning, routing, supervising, compensating and motivating, as these tasks apply to the sales force. This course focuses on business-to-business sales.

Prerequisite: MKTG-102

MKTG-324  (Formerly B244)  3-0-3
International Marketing
An investigation of the marketing concept in a global environment. Marketing practices through which various businesses adapt to the international environment are studied. Attention is also given to comparative marketing systems, and planning and organizing for export-import operations.

Prerequisite: MKTG-102

MKTG-328  (Formerly B251)  3-0-3
Merchandise Buying/Operations
The course provides the student with the understanding of the interdependence of the merchandising and operations functions. Students have a comprehensive understanding of the retail business from gross sales to net profit. To achieve this understanding, students are required to prepare a merchandising/operations plan that integrates all of the elements of doing business in the retail environment.

Prerequisites: INFO-101, MKTG-217

MKTG-381  (Formerly B299)  0-0-3
Independent Study in Marketing
Intensive independent study of a chosen subject. The student is expected to read a substantial number of major works in the field and to prepare a critical, documented paper. See the statement on Independent Study under “Academic Policies.”

Prerequisites: permission of the faculty member and the dean of the School of Business Administration

MKTG-391  (Formerly B261)  3-0-3
Marketing Research
Exposure to marketing-research techniques and procedures used in gathering, recording, analyzing and reporting of data related to marketing problems.

Prerequisites: MKTG-102, MKTG-207 and pre- or corequisite STAT-202

MKTG-408  (Formerly B303)  3-0-3
Survey of E-Commerce
This is an introductory course in which the size, scope and impact of e-commerce is explored. This course includes discussions about how technology impacts business processes and transactions. A significant part of the course will discuss the e-business technology platform. Additional topics include business-to-business market exchanges, online auctions, electronic-payment systems, market valuation of e-commerce firms, and government policies and issues concerning e-commerce such as privacy, regulations and ethics.

MKTG-412  (Formerly B262)  3-0-3
Marketing Strategy Seminar
Skills will be developed for making better decisions by learning to integrate various topics of marketing. The importance and know-how of anticipating, recognizing and adapting to external forces on the decision-making process and organization will be discussed. Emphasis will be placed on incorporating the most recent literature, which is of theoretical and practical importance, in the decision-making process. The course is built around readings, marketing cases, research papers and problem sets. A comprehensive marketing plan will be developed.

Prerequisites: senior status; pre- or corequisites: MKTG-207, MKTG-310, MKTG-391

MKTG-413  (Formerly B333)  2-2-3
E-Site Design
E-site Design is an introductory web design course. Students explore fundamental concepts of web site design and learn how to develop, post and maintain a web site using popular software. Emphasis is on mastering basic web site design and management skills for business applications that exceed a rudimentary knowledge of the techniques offered by application software packages. The student will engage in hands-on computer experience in the computer labs.

Note: for Graphic Design or Digital Design majors.

Prerequisite: permission of the director of Graphic Design Communication.

Physician Assistant Studies

Note: All of the below listed PAS courses, with the exception of PAS-100, PAS-230, PAS-320, PAS-330 and PAS-400, are restricted to students matriculated in the Physician Assistant Studies Program.

PAS-100  1-0-1
Topics in Professionalism: PA
This lecture and seminar course will familiarize the student with the concept, history, education, certification, legislation and role of the physician assistant profession. The structure of the U.S. health care system, along with ethical and current controversial issues related to that system, will also be discussed.

PAS-230  1-1-2
Clinical Interactions
This lecture and seminar course is designed to expose students in the Physician Assistant Studies program to the
basic principles of human interaction in the clinical setting. This course also includes limited patient contact experiences in health care facilities.

**PAS-320 0-6-3**
**Clinical Interactions II**
This experiential, independent-study course includes an extended community-service volunteer experience in a health care setting. Students are required to complete and submit activity logs and a final paper.
*Prerequisite: PAS-230*

**PAS-330 3-0-3**
**Medical Terminology and Documentation**
This course is designed for students in undergraduate health science programs and focuses on the structure and use of medical language and common documentation formats. It also includes an introduction to medical informatics. Clinical cases are utilized to illustrate the use of medical terminology in the health care setting. This course provides a more in-depth examination of this subject than PAS-400.

**PAS-400 1-0-1**
**Medical Terminology**
This competency-based course covers the structure, definition and utilization of basic medical terminology for students entering the health professions. The course is designed for students with some health care experience. Independent reading, workbook exercises, case studies and interactive computer software are the learning modalities used in this experience.

**PAS-407/PASF-507 GR 3-4-5**
**Advanced Anatomy**
This lecture and laboratory course will review basic histology along with the major anatomical structures of the human using a regional organization. Laboratory sessions utilizing microscopic examination, models and cadaver specimen dissection will augment lecture material.
*Prerequisite: BIOL-202 and BIOL-202L*

**PAS-410/PASF-510 GR 2-0-2**
**Medical and Professional Ethics**
Understanding the philosophical principles related to biomedical ethics, patient-practitioner relationships and the role of the physician assistant provider within the health care system are the main topics encompassed in this lecture and discussion seminar course.

**PAS-413/PASF-513 GR 3-0-3**
**Medical Physiology and Pathophysiology**
This lecture course is designed to teach the principles of human medical physiology along with the physiological mechanisms of common disease states.
*Prerequisites: BIOL-202 and BIOL-202L, BIOL-221 and BIOL-221L*

**PAS-417/PASF-517 GR 4-2-5**
**Medical History and Physical Diagnosis**
This lecture and practical laboratory course will introduce the physician assistant student to the techniques for eliciting a medical history and performing a complete physical examination on humans. The interpretation of history and physical examination findings as applicable to physiological and disease states will also be discussed. Laboratory sessions, hospital experiences and writing assignments will enhance the learning experience.

**PAS-421/PASF-521 GR 2-0-2**
**Medical Genetics and Microbiology**
This lecture course presents current concepts and issues in medical genetics, immunology and microbiology. It focuses on diseases of genetic origin, the function of the immune system and emerging trends in disorders caused by microorganisms.
*Prerequisite: BIOL-221 and BIOL-221L*

**PE-00 0-1-.5**
**Varsity Athlete**
Students who have participated on one of the University's 12 intercollegiate sports teams for one season will satisfy the requirement for this course. Students must register for this course in the semester they expect to receive the course credit. Students may register for this course two times.

**PE-02 0-1-.5**
To earn credit, students must participate in 15 or more hours of intramural sports. These hours do not have to be played in the same term and the accumulated hours of play do not have to be in the same sport. The intramural sports that are included are football, outdoor soccer, volleyball, basketball, softball and swimming.
*Prerequisite: Students must have earned more than 30 credits before enrolling in this course.*

**PE-03 0-1-.5**
**Introduction to Dance**
The emphasis in this course is on the fundamentals of movement and rhythm. Beginning modern dance techniques, folk dancing and basic social dance steps will be covered.

**PE-04 0-1-.5**
**Women's Health and Fitness**
Each woman develops and performs an exercise program suitable to her individual needs. Emphasis is placed on theoretical, as well as the practical aspects of resistance exercise, and how it applies in the area of lifetime sports.

**PE-08 0-1-.5**
**Karate**
The course focuses on the conditioning and skill aspects of karate as an art form and as a method of self-defense.

**PE-10 0-1-.5**
**Golf**
An introduction to golf. Emphasis is on the selection and care of equipment, theoretical considerations relative to the game and instruction in fundamentals.

**PE-11 0-1-.5**
**Beginners' Tennis**
This course includes discussions of the rules, etiquette and technique involved in playing tennis. Special emphasis is placed on groundstrokes and basics.
PE-12 0-1-.5
Intermediate Tennis
The course includes discussion of the rules, etiquette, technique and strategy involved in playing tennis singles and doubles. Skill instruction and an opportunity for playing experience are provided.

PE-14 0-1-.5
Volleyball
Rules, strategy and the skills involved in volleyball are discussed, analyzed, drilled and then practiced in game situations.

PE-23 0-1-.5
Yoga I
Course is designed to introduce students to the theory and practice of Hatha Yoga, which combines physical exercise, breathing techniques and relaxation in a unique method.

PE-24 0-1-.5
Yoga II
A continuation of Yoga I. It is designed to help students study their own body movements systematically. Though more advanced postures will be taught, the main emphasis will be on refinement and integration of techniques.

PE-25 0-1-.5
Stress Management
This course offers practical theory and techniques for overcoming stress and effectively channeling one’s energy. The program provides comprehensive training in self-mastery methods that help create healthful and successful living patterns. In this systematic framework, participants will learn how to detect, relieve and transform stressful feelings, while harnessing higher potentials.

PE-26 0-1-.5
Aerobics
This course is an aerobic exercise program choreographed to music and designed to condition the heart and lungs, to improve physical appearance and generate a state of well-being. The conditioning goals are met naturally and automatically as you progress through the program.

PE-28 0-1-.5
First Aid
A course designed to qualify the student in the principles of injury prevention and care for emergency situations.

PE-30 0-1-.5
Cardio-Pulmonary Resuscitation (CPR)
A course designed to qualify students in American Red Cross CPR certification. The student will be able to recognize and react to a life-threatening situation.

PE-32 0-1-.5
Body Sculpting
An opportunity for individuals to work within a group to tone and shape themselves with thought to individual preference.

PHOTO-111 (Formerly H323) 2-3-3
Introduction to Photography
This course is designed to stimulate visual awareness by encouraging students to use the camera as a tool for record-
PHYS-201L  (Formerly L325)  0-3-1
Physics I: Mechanics and Heat Laboratory
In this one-credit laboratory course students perform, analyze, and submit lab reports based on experiments which test the theories developed in mechanics and heat and they take quizzes based both on the lab instructions and material from the lectures.
Prerequisite: PHYS-201
Prerequisite or corequisite: MATH-112

PHYS-203  (Formerly S116)  3-0-3
Physics II: Waves, Electricity and Magnetism, Light
The mathematical representation of traveling sinusoidal waves and standing-wave patterns is emphasized. Applications are made to sound waves. Electrostatics include Gauss’s law, electric potentials and the potential gradient equation. The field concepts are used to interpret elementary D.C. circuits including Kirchhoff’s Rules. Capacitors as circuit elements and dielectrics are also studied. The effects of the magnetic field, its sources, induced EMFs and magnetic materials are considered. Series AC circuits conclude electromagnetism. Geometric optics includes lenses, mirrors and optical instruments. Physical optics includes interference and polarization of light waves.
Prerequisites: PHYS-201 and PHYS-201L
Corequisite: PHYS-203

PHYS-203L  (Formerly S116)  0-3-1
Physics II Laboratory: Waves, Electricity and Magnetism, Light
In this one-credit laboratory course students perform, analyze and submit lab reports based on experiments which test the theories developed in waves, electricity and magnetism, and light. They take quizzes based both on the lab instructions and material from the lectures.
Corequisite: PHYS-203
Prerequisites: PHYS-201 and PHYS-201L

PHYS-314  (Formerly S114)  3-0-3
Elements of Quantum Mechanics
The experimental background of quantum mechanics is reviewed before its postulates are introduced, and the theory is used to solve one-dimensional examples including the harmonic oscillator, then — in three dimensions — the hydrogen atom, electron spin and atomic spectra. Applications to chemistry are stressed.
Prerequisites: MATH-225, PHYS-201

PRINT-301  (Formerly T740)  1-5-3
Printing I
This course introduces production of printed textiles by hand-screen and digital fabric printing methods. Students will learn a technical process of color separations, screen making and printing in both digital and conventional (hands-on) modes. Integration of digital and hands-on printing are encouraged toward the end of the course. The main focus is placed on aesthetics of color and styling in textile design on fabric. Sketchbook study will be required to document design processes, ideas and drawings.
Prerequisite: PRINT-303

PRINT-303  (Formerly T705)  1-5-3
Print Design I
Techniques, materials, tools and basic information needed for the design on paper of printed fabrics for the apparel and home furnishing fields are studied. Hands on approaches with gouache and watercolor are used to prepare colorway and repeats. Students prepare a portfolio and learn to keep a sketchbook. A brief introduction to printing methods is included
Prerequisite: DSGNFND-303

PRINT-305  (Formerly T745)  2-2-3
Textile Printing Technology
The theory and practice of all aspects of industrial printing techniques are presented in a lecture/demonstration/lab format. Cloth preparation and finishing, machinery, dyestuffs and various print styles are included. This course offers practical background knowledge to students with primary interest in textile design, styling, marketing, quality control and textile manufacturing.

PRINT-315  (Formerly T706)  1-5-3
Print Design II
This course focuses on creative use of CAD in surface patterning, which integrates with hands-on design applications that students acquired in PRINT-303 Print Design I. Digital workflow, which includes scanning croquis, designing pattern on CAD, digital color matching and color ways will be introduced. At the same time, strong emphasis is placed on making croquis, which develop from drawings and paintings in the sketchbook. Students will create printed textile designs and patterns for Jacquard designs on paper with digital printers for apparel and home furnishing fields. Throughout the semester, sketchbook study will also be required to document the working process, as well as drawings and paintings.
Prerequisite: A grade of “C” or better in PRINT-303
processes; learning, memory and cognition; motivation and emotion; personality, psychopathology, psychological approaches to therapy; and social interactions. This course is a requirement for enrollment in all higher-level psychology courses.

**PSYCH-103 (Formerly H881) 3-0-3**  
**Physiological Psychology**  
This course will expand upon the biological bases of behavior. An emphasis will be placed on the relationship between the brain and behavior. Topics will include synthesis of neurotransmitters, an introduction to drugs and behavior and neural substrates that underlie behaviors.  
**Prerequisite:** PSYCH-101

**PSYCH-201 (Formerly H823) 3-0-3**  
**Abnormal Psychology**  
Consideration of the various classifications and symptomatology of psychopathological disorders — their origin, assessment, prognosis, treatment and prevention.  
**Prerequisite:** PSYCH-101

**PSYCH-210 (Formerly H825) 3-0-3**  
**Forensic Psychology**  
An examination of the interplay between the disciplines of psychology and law. The course will examine the psychological and behavioral issues that impact on the legal and criminal-justice systems, and how law and justice affect human behavior. Topics to be covered include crime and criminal behavior, victims, law enforcement, trials, witnesses, mental illness and criminal justice, corrections, family law, crime intervention and prevention.  
**Prerequisite:** PSYCH-101

**PSYCH-211 (Formerly H861) 3-0-3**  
**Learning Theory**  
Study of the acquisition, activation, direction and retention of human and animal behavior. Topics to be covered include instincts, drive, conditioning and instrumental learning, human verbal learning and language learning and memory processes.  
**Prerequisite:** PSYCH-101

**PSYCH-212 (Formerly H862) 3-0-3**  
**Cognitive Psychology**  
Study of human thinking, memory, problem solving and the relationship between damage to the cortex and information processing. Empirical research and applied examples and demonstrations will be presented to address such topics as the content of memory, memory improvement, strategies and approaches for solving different kinds of problems, and pathologies and problems of thought.  
**Prerequisite:** PSYCH-101

**PSYCH-213 (Formerly H870) 3-0-3**  
**Developmental Psychology**  
Analysis of the process of human development and change throughout the lifespan. Research on both humans and animals will be presented to promote understanding of human physical, social, emotional and cognitive development. Topics include prenatal and postnatal development, issues and theories of human development, genetic influences and personality and issues related to the aging process.  
**Prerequisite:** PSYCH-101

**PSYCH-214 (Formerly H863) 3-0-3**  
**History and Systems in Psychology**  
The historical development of significant psychological concepts, theories and systems. The focus and far ranging content of this course serves to provide an overall synthesis of the major subfields of psychology.  
**Prerequisite:** PSYCH-101

**PSYCH-220 (Formerly H812) 3-0-3**  
**Clinical Psychology**  
This course will provide students with an opportunity to use current theories to address individuals with mental-health issues. Topics will include professional duties and skills of the clinical psychologist, treatment procedures and resources, and the diagnosis and management of common psychological disorders. Emphasis will be placed on humanistic and behavioral theories of etiology, treatment, and the enhancement of psychological well-being.  
**Prerequisite:** PSYCH-201

**PSYCH-221 (Formerly H822) 3-0-3**  
**Personality Theory**  
A survey and comparative analysis of the major representative theories of personality, both traditional and contemporary. Special topics such as the effects of genetic predisposition, physical status and environmental factors on personality configurations will also be discussed.  
**Prerequisite:** PSYCH-101

**PSYCH-222 (Formerly H824) 3-0-3**  
**Counseling Psychology: Theories and Principles**  
An overview and general understanding of the field of counseling psychology. The course is designed to familiarize students with the basic concepts, interventions, scientific research, professional practices and contemporary issues of the profession of counseling psychology. Students will learn a variety of theoretical approaches and psychotherapy techniques to counseling, including psychoanalytic, behavioral, cognitive and humanistic approaches. The course contains both didactic and skill application to encourage competency in the performance of counseling skills.  
**Prerequisite:** PSYCH-201

**PSYCH-223 (Formerly H826) 3-0-3**  
**Marriage and Family**  
A survey of family systems and theories underlying marriage and family counseling. The course will explore the history of marriage, the choosing of a partner, parenting styles, and issues that create marital discord and divorce. Specific course objectives are to provide information about the therapeutic process and the practical elements of counseling interactions with families, to identify differences between individual- and system-oriented therapies, and to encourage the integration of theoretical and experiential learning.  
**Prerequisite:** PSYCH-101

**PSYCH-224 (Formerly H888) 3-0-3**  
**Psychology of Addiction**  
A survey of current psychological theories of the addiction process and treatment modalities based on each. Physiology and neurobiology will be considered, but are not the primary focus of the course. Theoretical models include: the disease
model, psychoanalytic formulations, conditioning theory, social-learning theory, family-systems theory and the opponent-process model. Sociocultural perspectives, including deviation theory, will also be discussed.

**Prerequisite: PSYCH-101**

**PSYCH-230 (Formerly H831) 3-0-3**  
**Industrial Organizational Psychology**  
Study of the more recent methods in testing, interviewing and selection of workers. Training, motivation, performance appraisal, job satisfaction, morale, job analysis, decision making, leadership and organization theory are other topics discussed.  
**Prerequisite: PSYCH-101**

**PSYCH-231 (Formerly H832) 3-0-3**  
**Assessment of Personnel**  
A methods course devoted primarily to assessing employees’ interests, needs, aptitudes and performance levels, using standardized, as well as “home-grown” testing instruments.  
**Prerequisite: PSYCH-101**

**PSYCH-232 (Formerly H851) 3-0-3**  
**Social Psychology**  
Study of the experimental analysis of the individual as subjected to the social influence of other individuals or social groups. Topics to be covered include persuasion, conformity, aggression, altruism, prejudice and interpersonal attraction and an analysis of the research methods used to study these behaviors.  
**Prerequisite: PSYCH-101**

**PSYCH-233 (Formerly H853) 3-0-3**  
**Interpersonal Relations and Small Group Dynamics**  
A course designed to provide a theoretical and experiential exposure to group formation, group process and group dynamics, as well as to interpersonal relationships within and between groups.  
**Prerequisite: PSYCH-101**

**PSYCH-240 (Formerly H880) 3-0-3**  
**Comparative Psychology**  
This course will provide a survey of the study of animal behavior as related to psychology. Students will become familiar with approaches, fundamental concepts and contemporary research findings of the field. Topics include patterns and development of behavior in animals, neural and hormonal influences, animal learning and cognition and the evolution of behavior.  
**Prerequisite: PSYCH-101**

**PSYCH-241 (Formerly H883) 3-0-3**  
**Psychopharmacology**  
Basic principles of drug action in the central nervous system. Topics will include effects of stimulants, depressants, intoxicants and drug abuse on behavioral function. The clinical use of drugs in the treatment of psychological and psychiatric disorders will be discussed.  
**Prerequisite: PSYCH-103**

**PSYCH-242 (Formerly H884) 3-0-3**  
**Sensations and Perceptions**  
Sensations refer to information about the environment gathered through the senses. Perception is the process by which sensory information is interpreted and made meaningful. This course will provide a survey of the study of sensation and perception from structural, functional and cognitive viewpoints.  
**Prerequisite: PSYCH-103**

**PSYCH-243 (Formerly H885) 3-0-3**  
**Human Sexuality**  
This course involves a rigorous examination of the biological, behavioral and mental aspects of human sexuality. Among the topics to be studied are anatomy and physiology, conception and contraception, sex roles, love, sexual communication, sexual dysfunctions and social issues such as pornography.  
**Prerequisite: PSYCH-101**

**PSYCH-322 (Formerly H804) 2-2-3**  
**Introduction to Experimental Psychology**  
This course introduces psychology as an experimental science in which hypotheses are generated and tested. Major topics will include various types of experimental designs, subject selection and randomization. Students will be introduced to various data collection methods and research designs specific to the different branches of psychology.  
**Prerequisite: STAT-321**

**PSYCH-371 (Formerly H896) 3-0-3**  
**Selected Topics in Psychology**  
An in-depth consideration of a particular topic, issue or problem in psychology that is of special interest to students and faculty. Recent sections have discussed topics such as educational psychology, psychosexual development, and the psychology of trauma. Topic selection will be done in advance of registration.  
**Prerequisite: PSYCH-101**

**PSYCH-381 (Formerly H899) 0-0-3**  
**Independent Study in Psychology**  
For further details, see general description of Independent Study in “Academic Policies” section.  

**PSYCH-391 (Formerly H890) 2-2-3**  
**Advanced Research in Psychology**  
(writing intensive)  
This course will involve an in-depth exploration of research methods in psychology. Students will conduct an original research project individually or as part of a research team. Through this course, students will apply their psychological training to designing, conducting, analyzing, discussing and presenting their own research project.  
**Prerequisites: PSYCH-322 and completion of at least 21 credits in psychology courses**

**PSYCH-410 (Formerly H805) 3-0-3**  
**Senior Colloquium in Psychology**  
A senior-level seminar dealing with current controversial issues in psychology. Students will perform a search of the scientific literature on issues chosen from a list provided by the instructor and organize, analyze, orally present and dis-
cuss material with the class. Finally, students will propose a question generated from this activity and design a research structure to answer it.

Prerequisites: PSYCH-391

**READ-099**

3-0-(3)

**Fundamentals of College Reading and Study Skills**

This course is designed to improve reading and study skills at the college level. Its main focus is on developing strategies that will be effective in other content courses. Students complete assignments in academic reading, note-taking, vocabulary development, review techniques and critical reading skills. Students must earn a “C” or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.” Students required to take READ-099 must not register for HIST-11X in the same semester.

**READ-099ESL**

3-0-(3)

**ESL: Fundamentals of College Reading and Study Skills**

This course is designed for students who do not have English as their first language. Its main focus is on developing effective reading strategies, expanding vocabulary and reading a wide variety of academic texts to help in preparing for the required reading in other content courses. Students must earn a “C” or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.” Students required to take READ-099ESL must not register for HIST-11X in the same semester.

**SCI-101 (Formerly L121)**

3-2-3

**Environmental Science**

Environmental Science is the study of how humans and the natural environment interact. Critical issues that affect our daily lives such as clean drinking water, urban renewal, energy availability, pesticides, global warming, acid rain and recycling are explored from social, ecological, chemical and political perspectives. Students will tackle a real-life environmental problem in a professional manner using critical thinking and analytical skills, library research skills, teamwork and presentation skills.

**SCI-102**

2-2-3

**Exploring Science**

*(for non-science majors)*

This hands-on science course delves into public health issues. Field and laboratory sessions focus on data analysis based on issues from students’ daily lives which leads to an examination of alternatives. How do you quit smoking? What is in the water you drink and the food you eat? The course culminates in a project that explores the historical, political, and environmental aspects of an unsolved scientific problem and presents the findings to a regional scientific agency.

**SCI-300**

3-0-3

**Basic Pharmacology**

This course introduces the student to the basic principles of pharmacology including pharmacokinetics and pharmacodynamics. The course will cover frequently prescribed medications, their uses, actions and common side effects. The student will learn about the various drug classification systems, as well as the effects of those drug classes on specific patient populations, and the process of preventing medication errors deriving from the use of pharmacologic agents.

Prerequisites: BIOL-104 and BIOL-104L, CHEM-104 and CHEM-104L

**SCI-381, SCI-382 (Formerly C281, C282)**

0-0-3, 0-0-3

**Independent Study I & II in Science**

Students interested in pursuing independent study in science must submit a proposal to the dean of the School of Science and Health for approval at least two weeks before pre-registration. Detailed guidelines for development of the proposal may be obtained from the School.

**SCI-493 (Formerly S791)**

0-0-(3 or 6)

**Science Internship**

A professional internship provides an opportunity for professional experience supporting application and further development of the knowledge gained in the classroom. Under faculty supervision, students work in positions related to the major, minor and/or career goal, develop learning objectives and complete reflective academic assignments. Students should be exposed to a broad spectrum of professional practice, particularly those not available in the academic setting, and are expected to make a professional contribution to their employer. Prerequisites: 2.5 G.P.A., completion of 60 credits, and permission of the Internship Program director. Additional requirements may apply. See “Internship Program” section for further information.

**SOC-201 (Formerly L362)**

3-0-3

**Class, Gender and Race in World Societies**

A study of theories, concepts and methods of social science, this course focuses on the nature of economic, racial and sexual stratification in the United States and around the world. The course is designed to enable one to understand and to be able to use social science to analyze and influence situations and environments.

Prerequisite: WRTG-101, HIST-1XX

**SOC-204 (Formerly L363)**

3-0-3

**Personality and World Cultures**

This course is an introduction to the social sciences through the focused study of personality and culture. Material will illustrate quantitative and qualitative methods of social-science research. We will explore concepts, theories and research representing psychological and anthropological approaches, using both classic and contemporary texts. Students will gain an appreciation of cross-cultural variability in personality.

Prerequisite: WRTG-101, HIST-1XX

**SOC-208 (Formerly L364)**

3-0-3

**The Individual and the Global Environment**

This course will introduce students to the social sciences by focusing upon issues in the environment. By examining goals of the new environmentalism, by direct individual and community involvement and by understanding the present state of the world and future trends, the student will have the skills to prepare for a sustainable society, a society that satisfies its needs without jeopardizing the prospects of future generations.

Prerequisite: WRTG-101, HIST-1XX
SOC-211 (Formerly L366) 3-0-3
Power and Poverty in the Global Economy
The course will emphasize the intersection between global political relations and global economics, and how the two together impact social relations worldwide. Various complementary and competing political and economic perspectives (from capitalist to socialist) will be used to address recent trends in the development of a global economy, international trade, the formation of regional blocs such as NAFTA and the EU, and North-South political/economic relations.
Prerequisite: WRTG-101, HIST-1XX

SOC-225 (Formerly L367) 3-0-3
Global Politics
This course provides an overview of the forces that are shaping international politics and economics. This course will help students understand the roles of international institutions such as the United Nations, the World Trade Organization and the International Monetary Fund, as well as non-governmental actors such as Amnesty International and al Qaeda. Students will also examine the process of economic globalization in order to understand its varying impacts on different world regions.
Prerequisites: WRTG-101, HIST-1XX

SOC-305 (Formerly L661) 3-0-3
Post-Industrial Society
(writing intensive)
Highly developed nations are ones that have moved from agricultural- and rural-based economies to industrial and manufacturing economics, and have then evolved into a post-industrial economy characterized by high technology, a strong service sector and a large “knowledge” class in a highly urbanized and mobile society. This course explores the implications of the post-industrial economy and the transition from an industrial society. Topics may include the rise of a global and interdependent economy, the role of information technology, the creation of a suburban culture and the consequent crisis of old industrial cities.
Prerequisites: SOC-2XX, WRTG-21X

SOC-309 (Formerly L663) 3-0-3
Social Conflict
(writing intensive)
This course adopts an interdisciplinary approach to a theoretical understanding of interpersonal and inter-group conflict (e.g., ethnic conflict, gender conflict, organizational conflict). Historical and cross-cultural examples and cases are emphasized. Students may use computer simulations and conduct team-research projects on issues at various levels of conflict in an effort to apply their theoretical understanding of social conflict in the context of their lives.
Prerequisites: SOC-2XX, WRTG-21X

SOC-312 (Formerly L664) 3-0-3
Human Rights
(writing intensive)
The course will examine the question of whether there are certain rights that we all possess as human beings and the prominence of these rights in international relations. Students will monitor human-rights violations in the United States and other countries in order to determine how much we have achieved as a world community and how far we have yet to go.
Prerequisites: SOC-2XX, WRTG-21X

SOC-315 (Formerly L671) 3-0-3
The African American Experience
(writing intensive)
This course explores African Americans’ struggle for freedom and equality in American society. It examines the social, economic, political and cultural realms of African American life with some exploration of cultural origins in West Africa. Students read in primary sources and use literary evidence in an interdisciplinary effort to understand the past and explore contemporary issues in American society.
Prerequisites: SOC-2XX, WRTG-21X

SOC-317 3-0-3
Applied Professional Ethics
(writing intensive)
This research and writing-intensive course introduces students to numerous concepts in Western and non-Western ethics that inform decisions about what we “ought” to do in our personal and professional lives. Students will read primary text selections from philosophers and analyze practical cases by applying what they have read.
Prerequisites: SOC-2XX, WRTG-21X

SOC-321 (Formerly L673) 3-0-3
The Urban Experience
(writing intensive)
This course discusses the origins and development of urban life. Special focus will be upon Philadelphia as it represents trends in the American experience of cities.
Prerequisites: SOC-2XX, WRTG-21X

SOC-325 (Formerly L684) 3-0-3
Gender Studies
(writing intensive)
This course focuses on recent developments in gender studies, examining how gender has been conceptualized and analyzed, historically and in the present day. Topics considered include the formation of masculinities and femininities, the intersections between gender, sexual orientation, class and race, and the significance of gender in personal and professional contexts. Readings are drawn from a variety of disciplines depending on the instructor.
Prerequisites: SOC-2XX, WRTG-21X

SOC-327 (Formerly L674) 3-0-3
Science and Society
(writing intensive)
This course uses multidisciplinary materials to examine the mutual influences of science and culture in the modern world. We will closely study several key areas where science and society interact or intersect: science and industry; science and government; science and social values. Students will come to a greater understanding of the cultural significance of science through examination of primary sources, historical and sociological texts, and works of art and literature.
Prerequisites: SOC-2XX, WRTG-21X

STAT-201 3-0-3
Statistics I for Business
Descriptive statistical measures and probability theory are combined to provide the basis for statistical decision-making techniques. Areas covered: data presentation; measures of central tendency; measures of variability; basic probability
laws, Bayes’ theorem; binomial; Poisson; “t,” and normal distributions; confidence intervals; hypothesis testing.  
**Prerequisite:** Quantitative Reasoning I

### STAT-202 (Formerly B152) 3-0-3  
Statistics II for Business

Review of sampling distribution, confidence intervals and hypothesis tests for two-samples; simple linear regression, multiple linear regression with emphasis on computer output; one- and two-way analysis of variance; application of the Chi-square statistic; non-parametric statistical techniques.  
**Prerequisite:** grade of “C” or better in STAT-201

### STAT-221 (Formerly H802) 3-0-3  
Psychological Applications of Statistics I

This course will present an introduction to descriptive statistics and the basis for statistical decision-making techniques. Methods for analyzing experimental data will be presented so students can gain an understanding of statistical procedures commonly used in psychological research. Topics to be covered include the presentation of data, probability, measures of central tendency and variability, correlation, and an introduction to hypothesis testing.  
**Prerequisite:** PSYCH-101

### STAT-301 (Formerly S466) 3-0-3  
Biostatistics

This course will cover principles of experimental design and statistics for biologists in environmental and medical fields. Hypothesis testing; data collection and sampling; data analysis and graphing; univariate; bivariate and multivariate analysis including regression and ANOVA. Students will design an experiment and compare and contrast the results of several different statistical approaches to data analysis and interpretation.  
**Prerequisite:** grade of “C” or better in either MATH-111 or MATH-112

### STAT-321 (Formerly H803) 3-0-3  
Psychological Applications of Statistics II

This course will expand on fundamental topics covered in Psychological Applications of Statistics I and will cover advanced topics such as two-sample hypothesis testing, correlation, analysis of variance, regression, and various non-parametric statistics. Particular emphasis will be placed on the interconnection between experimental design in psychology and statistical principles.  
**Prerequisite:** STAT-221

### STUAB-300 (Formerly T100) 0-0-(3-12)  
Textile Studies Abroad

Students have the opportunity to study in international textile schools. The School of Engineering and Textiles should be contacted for further information.  
**Prerequisites:** junior status, 2.50 G.P.A.

### STUAB-300 (Formerly B100) 0-0-(4-6)  
International Business Studies Abroad

International Business majors are required to study abroad an equivalent of four to six credit hours. The location must be consistent with the foreign language studies chosen. The study abroad may be in the form of an internship or studies at an international university or college. Students must apply for and coordinate their study abroad through the International Business coordinator. A minimum of six months is usually required between the application and the actual study abroad. Prerequisites: equivalent of semester-three language proficiency (Intermediate Low of the ACTFL proficiency standard) in a second language and permission of the International Business program coordinator.

### STUAB-300 (Formerly S464) 1-6-4  
Study Abroad in Science

International experience is invaluable in all scientific disciplines and strongly encouraged by the School of Science and Health. Students will collect, analyze and present data in a scientific discipline both in the host country and to the Philadelphia University community. All students will have assignments and immersion in the cultural, social, environmental and historic foundations of the host country.  
**Prerequisites:** 2.00 G.P.A., grade of “C” or better in BIOL-104 AND BIOL-104L or permission of the instructor, and successful completion of the Study Abroad application and policy guidelines process

### STUAB-300 (Formerly A100) 0-0-(3-12)  
Architecture/Design and Media Studies Abroad

Contact the School of Architecture, or Design and Media for further information.  
**Prerequisites:** 2.00 G.P.A., grade of “C” or better in both ARCH-301 and ARCH-302; or grade of “C” or better in INTD-302, and permission of both the study abroad director and program director  
**Prerequisites:** DSGNFND-103, ADFND-101 or INDD-101  
Cannot be taken as a replacement for WEAV-201.

### TENGR-306 (Formerly EN604) 3-2-3  
Textile Engineering I (Linear Assemblies – Fibers & Yarns)

Molecular structure and morphologies of fibers. Physical, chemical and mechanical properties and behavior of fibers. Fiber-production processes. An examination of systems employed in conversion of fibers into textile structures. Relationships between material/process constraints and product functional quality are analyzed.  
*First offered in Spring 2008*

### TENGR-308 (Formerly EN606) 3-2-3  
Textile Engineering II (Planar Assemblies)

**Prerequisite:** TENGR-306  
*First offered in Spring 2008*
TEXT-101 (Formerly T101) 3-1-3
Survey of Textile Industry
Introduction to the language and process flow of fibers through finished products. Topics include fiber classification, formation and variants; spun- and filament-yarn processing, numbering systems, texturing and novelty yarns; woven, knit and nonwoven fabric formation, processing equipment and basic design elements; printing, dyeing and finishing processes; product evaluation; as well as government legislation related to textiles. A laboratory experience provides support for the lectures.

TEXT-113 (Formerly T301) 4-2-4
Yarn
The processes necessary for the manufacture of continuous filament, staple, novelty, bulk and stretch yarns are studied. Staple yarn manufacture, including the processing of natural and man-made fibers on the carded cotton, combed cotton, woolen and worsted staple yarn manufacturing system is covered. Quality-control procedures are emphasized. The laboratory experience exposes the student to all aspects of fiber to yarn formation.
Prerequisite: TEXT-101

TEXT-201 (Formerly T255) 2-2-3
Textile Production I
This course will focus on the following performance properties of textiles: strength, elongation, thermo-physiological comfort, sensorial-comfort body movement, aesthetic qualities, appearance, maintenance properties, and health/safety/protection properties. The process of achieving desired fabric properties through the use of appropriate fiber-, yarn- and fabric-production technology will be analyzed through theoretical studies and production laboratory exercises.
First offered Spring 2005 Any student who has received credit for TEXT-113, WEA-201, KNIT-201, and/or TEXT-321 may not take this course
Prerequisite: TEXT-101

TEXT-209 (Formerly T630) 3-0-3
Industrial Textiles
The study of the major industrial fabric applications, constructions and future trends. The performance requirements for each application will be related to the selection of industrial fibers, yarn and fabric constructions and fabric finishing, coating and laminating.
Prerequisites: TEXT-307

TEXT-219 (Formerly T253) 3-0-3
Textiles for Interiors and Architecture
Focuses upon the unique problems and considerations of servicing the residential and contract textile-products market composed of upholstered furniture, window/wall coverings, carpets/rugs and furnishing accessories. Special textile requirements mandated by government agencies, building codes and industry-performance standards for residential, public and institutional interior spaces are emphasized.
Prerequisite: TEXT-101

TEXT-301 (Formerly T256) 3-0-3
Textile Production II
This lecture-based course will focus on coloration techniques, including dyeing and printing; as well as aesthetic and functional finishing. Any student who has previously received credit for PRINT-305 and/or TEXTCHM-242 may not take this course for credit.
Fall only.
Prerequisite: TEXT-201

TEXT-305 (Formerly T207) 2-2-3
Advanced Fabric Performance Evaluation
The objective evaluation of fabric-mechanical properties influencing hand and performance are explored. Comfort-contributing qualities, such as thermal conductivity and air permeability, are also addressed. The influence of fabric-mechanical properties on formability and seaming is assessed with special attention to their role in automated assembly.
Prerequisite: TEXT-307 or TEXT-331

TEXT-307 (Formerly T201) 3-2-4
Textile Materials
The interrelationship of fiber selection, yarn processing, fabrication and finishing parameters is used to predict and measure fabric performance for specific end uses. A laboratory experience in textile product evaluation provides practical application of theory. The impact of textile-related government regulations is also emphasized.
Prerequisite: TEXT-101

TEXT-313 (Formerly T763) 3-0-3
Textile Costing
The cost of materials, labor, overhead and waste is studied in relation to textile production and finishing. Case studies illustrate cost systems used in textile mills. Interrelationships between labor, machines and facilities are analyzed to determine their relative importance in cost-reduction programs. Costing factors for domestic and imported fabrics are considered.
Prerequisites: WEA-201, KNIT-201
TEXT-314 (Formerly T709)  
European Textile Printing  
0-0-3  
A two-week study tour in the textile printing areas of France, Switzerland and Northern Italy introduces Textile Design and Engineering Technology majors to the expertise of important European printers, screen engravers and studios in the areas of printed textile design, style, color and printing technology. Visits to the two important French historic textile museums and other related textile plants are also included.  
Prerequisite: PRINT-315 or PRINT-301 or PRINT-305 or permission of the dean of the school

TEXT-315 (Formerly T208)  
Interior Fabric Performance  
1-4-3  
Evaluations of fabrics and materials intended for end use in home furnishings are covered in this course. The use of physical testing to predict performance potential is emphasized. The use of instrumentations in the evaluation of surface and color change is presented.  
Prerequisite: TEXT-307

TEXT-316 (Formerly T767)  
Textile Quality Management  
3-0-3  
Recently, quality has emerged as a formal management function — no longer restricted to manufacturing and operational areas, it now includes the design, purchasing and marketing processes. Through lecture, discussion and experiential, this course examines quality theory and practice — how a more sophisticated understanding of quality can lead to a strategic approach to quality management that is necessary to compete in today's global marketplace. Factors required for creating and maintaining a corporation’s strategies and competitive edge are analyzed.  
Prerequisites: MGMT-301; and WEAV-301 or KNIT-205

TEXT-317 (Formerly T811)  
Textile Production Control  
3-0-3  
Production — its measurement and control — is studied through plant and equipment layouts, as well as equipment selection. Methods of managing people and the equipment to optimize production are discussed.  
Prerequisites: WEAV-201, KNIT-201

TEXT-321 (Formerly T620)  
Nonwovens  
2-2-3  
The methods of web formation, bonding, end-use and market potential for nonwovens are investigated. In the laboratory, dry-laid and wet-laid nonwovens are manufactured and later evaluated in the testing laboratory for their unique characteristics.  
Prerequisite: TEXT-101

TEXT-325 (Formerly T621)  
Fibrous Composite Materials  
2-2-3  
Exploration of properties of various fibers and fibrous constructions as applied to composites; fabrication of fiber-reinforced composites; and analysis of properties of new materials and technology.  
Prerequisite: MATH-112, ENGR-215

TEXT-331 (Formerly T240)  
Apparel Fabric Performance  
3-0-3  
The course focuses upon the dependent relationship of the raw materials, manufacturing processes and finishing techniques that influence the actual performance of apparel products. This will enable students to evaluate a garment’s suitability for a specific end use when any fabric variable is altered or when a product’s construction and composition is examined. Federally mandated and voluntary labeling requirements will be emphasized. This course cannot be taken for credit by students who have taken TEXT-307.  
Prerequisite: TEXT-101

TEXT-335 (Formerly T625)  
Nonwovens Fabrication and Design  
1-4-3  
Experimentation in the methods of nonwoven web formation, bonding, end use and expanded market potential for nonwovens are investigated. In the design studio, students will conduct market research while concurrently developing design concepts through hands-on laboratory experience. Each student will create a collection of samples with a specified intention exercising knowledge of fiber and fabrication properties, aesthetic qualities and performance characteristics.

TEXT-371 (Formerly T890)  
Special Topics in Textiles  
3-0-3  
A topic of special interest to students majoring in Textile Design, or Textile Engineering Technology. The special topic will vary.  
Prerequisites will vary.

TEXT-381, TEXT-382 (Formerly T798, T799)  
Independent Study in Textiles I and II  
0-0-3  
For details, see description of Independent Study in “Academic Policies” section.

TEXT-391 (Formerly T295)  
Textile Design Research  
1-5-3  
This course will focus on uses of various design resources such as museums, market information, color forecasts, trade shows, nature and current events to generate design ideas suitable for the student’s concentration area. Active research will result in a written and illustrated sketchbook of ideas to be used in advanced studio course projects, as well as portfolio-suitable drawings and paintings.  
Prerequisites: DSGNFDN-303, DRAW-101

TEXT-411 (Formerly T790)  
Seminar: Textile/Apparel Industry Issues  
1-0-1  
Seminars will expose students to diverse views, as well as enable them to discuss broad issues that cut across several disciplines. New technology and processes, business ethics, industry forecasting and marketing innovations, as well as career information, are effectively presented in this format. One credit of Textile/Apparel Industry Issues is required for TD, TET, FD and FIM majors.

TEXT-437 (Formerly T941)  
Integrated Manufacturing Technology  
3-0-3
The course will analyze the various manufacturing technologies and their implications on management philosophy, employee relations and profitability through lectures and lit-
erature searches. The student will be a member of a team that will analyze and present to top management a feasible plan for integrating manufacturing technology.

Prerequisites: FASHMGT-305, ACCT-102

TEXT-489
Textile Design Senior Seminar
The capstone course for students within the Textile Design major during which the students will develop a professional portfolio in actual and digital formats and refine work for their final exhibition. Students’ individual interests will guide market research and the resultant development of targeted lists of potential employers. Resumes, cover letters and promotional packets will be developed during the course of the semester.

Prerequisite: Senior status

TEXT-493 (Formerly T791) 0-0-(3 or 6)
Engineer & Textiles Internship I
A professional internship provides an opportunity for professional experience supporting application and further development of the knowledge gained in the classroom. Under faculty supervision, students work in positions related to the major, minor and/or career goal, develop learning objectives and complete reflective academic assignments. Students should be exposed to a broad spectrum of professional practice, particularly those not available in the academic setting, and are expected to make a professional contribution to their employer.

Prerequisites: 2.5 G.P.A., completion of 60 credits, and permission of the Internship program director. Additional requirements may apply. See "Internship Program" section for further details.

TEXTCHM-242 (Formerly C501) 4-2-4
Dyeing and Finishing (writing intensive)
This course presents an overview of the wet processing of fibers, yarns and fabrics. Included are the preparation, dyeing and finishing of textiles. Some emphasis is placed on the chemistry and technology involved in these operations. Dyes are studied by their method of application and the primary substrates to which they are applied. Chemical, thermal and mechanical processes are discussed for both preparation and finishing of fabrics.

Prerequisite: CHEM-101 or CHEM 103, WRTG-101

TEXTCHM-338 (Formerly C116) 4-2-4
Organic/Textile Chemistry
Aliphatic, aromatic and heterocyclic compounds with emphasis on those syntheses and reactions that play a role in textile chemistry. Also includes the chemistry of carbohydrates and proteins, regenerated polymers, polymerization, synthetic polymers, the synthesis and chemistry of finishing agents and dyes. The laboratory portion illustrates basic techniques and reactions and the applications of textile chemistry.

Prerequisite: CHEM 103

WEAV-201 (Formerly T451) 4-2-4
Weaving I
The structures and analysis of woven fabrics will be studied utilizing CAD, pick outs and laboratory assignments on industrial equipment. Weave structures will include plain, twills and satins (with their derivatives), color effects, textural effects (cords, piques, etc.) and pile weaves. Fabric will be mathematically analyzed for weight, yarn size, fabric count and yarn crimp to specify fabric structure. Necessary loom controls (draw, chains and reed plans) will be used to relate lectures and laboratory work on dobby looms.

Pre- or corequisite: TEXT-113

WEAV-207 (Formerly T440) 1-5-3
Weave Design Studio I
This course focuses on the effects and interactions that yarn, color, texture and structure play in woven design. Working with multi-harness floor looms and dobby looms, students create warps and chains, and weave prototype cloth for various end uses.

Prerequisite: WEAV-201

WEAV-226 (Formerly T420) 3-2-4
Jacquard
The principles and equipment involved in the design and production of Jacquard fabrics are studied. Students analyze, design and produce complex Jacquard fabrics on commercial equipment including computerized design and production systems.

Prerequisite: WEAV-301

WEAV-301 (Formerly T452) 4-2-4
Weaving II
The variations, function, auxiliary devices and design characteristics of cam, dobby and Jacquard weaving machines, and the equipment used to support the weaving process are studied; along with relevant calculations regarding time, materials and production of fabrics. The technique required to accurately analyze fabrics for all critical components and methods to design fabrics for specific weight and compact cover, with consideration given to yarn size, texture, fiber type, weave and other fabric parameters, will be learned. Advanced multi-layer weaves will be studied, analyzed and woven.

Prerequisite: WEAV-201

WEAV-307 (Formerly T441) 1-5-3
Weave Design Studio II
The study of elements of woven design is brought to the problems of multi-layered cloth, compound weaves, block designs and other advanced structures. Students use several CAD programs in conjunction with AVL compu-dobbies to increase their design capabilities. Multi-harness floor looms and dobby looms are also used to develop cloth from concept to actuality.

Prerequisite: A grade of “C” or better in WEAV-207
WEAV-327 (Formerly T442) Weave Design Studio III 1-5-3
Through an advanced study in woven-textile design, students develop a comprehensive working knowledge of the process of styling fabric for specific textile markets. Depending on the projects' parameters, students may use AVL compu-dobbies, multi-harness floor looms and/or dobby looms.
Prerequisite: WEAV-307

WEAV-401 (Formerly T478) Introduction to Woven Design (for non-textile design majors) 1-5-3
This course focuses on the effects and interactions that yarn, color, texture and structure play in woven design, as they relate to a range of end use applications. Students will develop fabrics appropriate for their particular area of interest or major field of study. Using multi-harness looms, students will create and weave a variety of samples and prototype cloth.

WRTG-098ESL (Formerly H99ESL) ESL: Fundamentals of College Writing 3-0-(3)
This course is specifically designed for students who do not have English as their first language, and need additional preparation before taking WRTG-101 ESL: Writing Seminar I. The process of writing is emphasized, with pre-writing activities, planning, multiple drafting that receives peer and teacher feedback, and opportunities for revisions and editing. Beginning with paragraphs and expanding to multiple-paragraph essays, students learn to develop skills in supporting a controlling idea and in recognizing and correcting errors in grammar, punctuation, sentence structure and word usage. 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. Students must earn a "C" or better to receive credit for fundamentals courses. See "Fundamentals Courses" in the section “Academic Policies.”

WRTG-099 (Formerly H99) Fundamentals of College Writing 3-0-(3)
This course is designed for students who need additional preparation before taking WRTG-101, Writing Seminar I. Students who place into this course are given background information about the content of Writing Seminar 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. Credits may not be applied toward graduation requirements. Students must earn a "C" or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.”

WRTG-100ESL (Formerly L111ESL) ESL: Writing Seminar I 3-2-3
This course parallels WRTG-101, yet is specifically designed for students whose first language is not English. As does WRTG-101, this course includes reading and discussion about a variety of texts that share a common theme. Writing assignments include at least three expository essays and a library research paper related to the theme. To be placed in the course, students must either pass WRTG-098ESL or, after submitting a writing sample, be placed by a designated faculty member.

WRTG-101 Writing Seminar I: Finding Philadelphia 3-0-3
This course is based on the idea that reading, writing and thinking within a specific context are crucial to successful college work. Students use writing to explore issues in contemporary Philadelphia's social and cultural contexts. Through reading, discussing and writing about full-length books and articles, students learn the rudiments of writing college-level academic papers. Honors and English as Second Language versions of this course are available.

WRTG-211 (Formerly L611) Writing Seminar II: Business 3-0-3
This course has been designed primarily for students of business. Students focus on critical reading, writing, thinking, and researching in print, electronic, observation, and interview formats. Students also consider economic, social, and political perspectives as applied to workplace communication and their professions. Students produce individual and group projects, including oral and visual presentations, as they focus both on the process as well as the final products of their work.
Prerequisites: WRTG-101, HIST-1XX. May not be taken CR/NC.

WRTG-215 (Formerly L612) Writing Seminar II: Design 3-0-3
This course has been designed primarily for students of design. Students focus on critical reading, writing, thinking, and researching in print, electronic, observation, and interview formats. Students also consider economic, social, and political perspectives as applied to workplace communication and their professions. Formal aesthetic concerns are also addressed. Students produce individual and group projects, including oral and visual presentations, as they focus both on the process as well as the final products of their work.
Prerequisites: WRTG-101, HIST-1XX. May not be taken CR/NC.

WRTG-217 (Formerly L613) Writing Seminar II: Science, Engineering, Technology and Health Professions 3-0-3
This course has been designed primarily for students of science, engineering, technology, and the health professions. Students focus on critical reading, writing, thinking, and researching in print, electronic, observation, and interview formats. Students also consider economic, social, and political perspectives as applied to workplace communication and their professions. Students produce individual and group projects, including oral and visual presentations, as they focus both on the process as well as the final products of their work.
Prerequisite: WRTG-101, HIST-1XX. May not be taken CR/NC.

Continuing and Professional Studies
All Continuing and Professional Studies courses are available only in an accelerated format

BE-HLT-341 (Formerly J605) 3-0-3
Behavioral Health and Neurorehabilitation
Focusing on the needs of clients and patients in specific environments, this course integrates behavioral and health
sciences in the description of a range of interventions. Students will study specialized services used in the delivery of neuropsychology, rehabilitation nursing, occupational therapy and a variety of other fields.

**BE-HLT-499 (Formerly J610) Applied Project in Behavioral and Health Services**

Using the principles learned in CPS Core coursework, and/or applied psychology, neuropsychology, or behavioral health, this course requires students to design and develop a program directed toward addressing the health needs of an individual client/patient or group of individuals. Students are encouraged to apply their project to the future work environment where they plan to apply their expertise. Portfolio-based assessment allows students to demonstrate proficiency through display of artifacts related to their plan along with the presentation of documents that either assess the design of the project or describe project implementation.

*Prerequisite: CPS Core coursework*

**BUS-499 (Formerly J525) Business Capstone Seminar**

The process and techniques of strategy formulation, implementation and evaluation are studied and applied. Case studies of domestic and international companies and non-profit organizations will be used to integrate strategic management concepts with knowledge acquired in other classes. This course will include extensive written individual and team assignments and oral presentations.

*Prerequisites: MGMT-401, MKTG-102, ACCT-101 and ACCT-102*

**COMM-310 (Formerly J204) Communication Theory and Practice**

This course is designed to provide viable frameworks in communication and organizational theories and dynamics. Diagnostic criteria and delivery techniques will also be explored, within both theoretical and pragmatic realms. The class will be conducted in an interactive seminar format.

**COMM-320 (Formerly J204) Professional Communication Skills**

This General Education Core course requires students to analyze, produce, and revise professional communication in a variety of written, oral, and multi-model formats. Students produce individual and group projects in print and multimedia settings as they explore how economic, social and political perspectives apply to workplace communications, the professions and the professionals themselves.

**CS-SEM-499 (Formerly J210) Professional Studies Capstone Seminar**

This General Education Core course examines emerging global issues in the areas of politics, economics, technology, and the environment; and explores intercultural communication and the cultural dimensions of international business. Students present their final Continuing and Professional Studies Portfolios and analyze a relevant global trend and its expected impact upon their professional field. Required of all CPS Accelerated Bachelor of Science Degree Completion students.

*Prerequisites: Completion of all General Education and Continuing and Professional Studies Core courses, completion of at least 3 electives and completion of at least 3 courses in the major area of study*

**CS-SEM-300 (Formerly J100) Professional Practice Seminar**

This introductory core course in Continuing and Professional Studies Bachelor of Science Accelerated Degree Completion Program. Course draws on a variety of sources to provide students the opportunity to create their own conceptual framework regarding their professional and personal experiences and understand how to integrate those frameworks into a personal plan for learning. Students are introduced to the requirements of the Continuing and Professional Studies Portfolio and create the first draft of their personalized portfolio. Required of all CPS majors.

*Prerequisites: Admission to CPS Accelerated Baccalaureate Degree Completion program*

**ECON-331 (Formerly J111) Economic Decision Making**

This Continuing and Professional Studies Core course introduces principles underlying the behavior of business firms, resource owners, and consumers within a system of markets. The theory of value and distribution and the implications of international trade on both value and distribution are addressed. Overall purpose of the course is to introduce many of the factors underlying sound economic decision making in the rapidly emerging global economy. There is a strong course focus on critical analysis of cases.

**EMS-310 Emergency Services Law**

This course explores the essential framework of federal, state and local laws that impact on emergency and public safety services. It will provide an overview of the most important federal and state legislation that impact emergency services management and disasters.

**EMS-320 Emergency Management Planning**

Topics covered in this course include: program planning and management, financial planning, managing information, leadership and followership styles, decision making skills, community building skills, intergovernmental relationships, negotiating and communication skills and professionalism.

**EMS-330 Public Health Issues Impacting Emergency Services**

This course explores the relationship of public health and emergency and disaster prevention, response and recovery environments. Discussions examine the changing and unique role of public health in emergency management paying special attention to epidemiology, integration with traditional emergency services, medical and first responders, public safety, bioterrorism preparedness, and the need for comprehensive pre-education of professional and public communities. The class will cultivate insight into the necessary integration of public health in the development of effective emergency response contingencies specific to natural, accidental and intentional disaster events.
**EMS-410**  
**Disaster Response and Recovery Planning**  
3-0-3  
A pro-active rather than reactive approach to disaster preparedness is the best means of mitigating damage from natural disasters or other forms of destruction. This course covers systematic planning efforts for when disaster emergencies occur. Whether small scale or catastrophic, they can be overwhelming. Information in this course provides guidance on business continuity planning and recovery.

**EMS-499**  
**Theoretical Applications and Applied Project in Emergency Services Leadership**  
3-0-3  
Students will explore the relevant scholarly literature and then conduct an in-depth analysis of the emergency services industry and design an innovative project. Knowledge of statistical analysis, process planning, and data gathering will be used to complete their analysis and report on a contemporary topic or aspect of the business. Students will demonstrate their ability to assess the efficacy of program design as well as describe the project planning and implementation processes. Student projects are evaluated based on the capacity to incorporate familiarity with systems and planning in a comprehensive project in the context of their subject. Prerequisites: EMS-310, EMS-320, EMS-410

**FINC-323**  (Formerly J121)  
**Financial Decision-Making**  
3-0-3  
A Continuing and Professional Studies Core course that examines financial decision making both from the corporate and individual points of view. While the emphasis is primarily on the corporation, discussions and analysis will be extended, where appropriate, to the individual. Prerequisite: STAT-311

**HIST-321**  (Formerly J201)  
**Business, Industry and Work in American History**  
3-0-3  
This General Education Core course surveys major themes in the history of work in America, focusing on how economic, technological, and political changes have transformed the nature of work in America. Course readings explore industrialization, the emergence of mass production and modern management, the history of worker organizations, the decline of manufacturing and rise of a service economy, and the impact of globalization on work in America. Throughout the course, students consider connections between changes in the workplace and broader social and political developments, including changing gender roles and the civil rights movement.

**HLTSV-210**  (Formerly J125)  
**Ethical Issues for Health and Human Services Providers**  
3-0-3  
This seminar style course is intended to provide tools necessary for considering and discussing ethical dilemmas in today's multicultural society. Meaningful dialogue requires an understanding of the evolution and development of ethics from the beginning of civilization. Sources used for this course include films and directed readings (text, newspaper articles, and internet resources). The goal of this course is to enhance the understanding and language skills of the provided so that he/she can engage in meaningful discussions of potentially highly charged emotional issues. Prerequisite: WRTG-101

**HLTSV-310**  (Formerly J301)  
**Survey of Health Services Delivery System**  
3-0-3  
This course provides an overview of the history, evolution and major components of U.S. health care systems. Topics covered include the organization of health care services, the hospital, the roles of health care providers, supply and demand in health care, third-party payers, the role of government and managed care and comparisons of health care systems in other countries.

**HLTSV-315**  (Formerly J302)  
**Public Policy and Planning in Healthcare**  
3-0-3  
An analysis of the processes related to the planning, organizing, staffing, directing and controlling of health care services. Specific emphasis is given to the key indicators and organizations that drive policy and planning in health care systems. The course also considers the impact of policy on practitioners in health care. The techniques of effective decision making and problem solving are also addressed.

**HLTSV-325**  (Formerly J303)  
**Emerging Issues in Healthcare**  
3-0-3  
This course explores the current trends in health care and issues affecting the organizational changes in the industry with regard to delivery of health care services in a wide variety of settings. Topics include history of U.S. health care services, current reform proposals, universal health care insurance, ethical issues, gerontological issues, labor relations, the changing workforce in health care, and comparative perspectives of health care in other countries.

**HLTSV-499**  (Formerly J310)  
**Capstone Seminar in Health Services Management**  
3-0-3  
Students use knowledge of statistical analysis, process planning, and data gathering to complete an in-depth analysis and report on a sector or organization in the health care industry. Students’ projects are evaluated based on demonstration of an understanding of systems, planning and dynamics of delivery in the context of their project. Prerequisite: HRM-350, HLTSV-310, HLTSV-315 and HLTSV-325

**HRM-321**  (Formerly J401)  
**Staffing and Resource Management**  
3-0-3  
This course focuses on the recruitment and retention functions of human resource management, including EEO/Affirmative Action and career planning. In addition, the course focuses on the training and development functions inherent in retaining and enhancing a skilled work force. Training development includes needs analysis, programming and evaluation. Prerequisite: MGMT-320

**HRM-336**  (Formerly J402)  
**Compensation, Benefits, and Health and Safety**  
3-0-3  
Focusing on the complex structure of employee benefits programs, this course also introduces students to compensation structures. In addition to the focus on compensation and benefits, the course also develops students’ understanding of the legal and organizational aspects of health, safety and security. Prerequisite: MGMT-320
HRM-350 (Formerly J132) 3-0-3  
Cross-Cultural Communication and Diversity  
This course will examine how to manage the growing multicultural workforce in the United States. Topics include issues of intercultural communication and cross-cultural relations, ethnocentrism, racism and ageism. Students will develop an understanding and appreciation for cultures other than one’s own and will be able to discuss current techniques used in cultural analysis.

HRM-421 (Formerly J403) 3-0-3  
Organizational and Employee Relations  
This course focuses in part on the function of union representation and collective bargaining in managing a large organization. In addition, it focuses on the role of planning, control, and information resources in the practice of human resource professionals.  
Prerequisite: MGMT-320

HRM-499 (Formerly J410) 3-0-3  
Applied Research and Practice in Human Resource Management  
This project-centered course requires students to develop a comprehensive human resource plan for an organization. Plans must include considerations of planning, staff development, compensation and benefit structures, and organizational health and safety requirements. Students will write and present a comprehensive plan, including materials targeted for employee development and relations.  
Prerequisite: HRM-321, HRM-336 and HRM-421

HUMN-310 (Formerly J202) 3-0-3  
Globalization and World Politics  
This course provides an overview of the forces which are shaping global economics and politics. Students will develop an understanding of the roles of international institutions such as the World Trade Organization, the International Monetary Fund and the United Nations, as well as non-governmental groups like Amnesty International and al Qaeda. Students will also examine the process of economic globalization in order to understand its varying impacts on different world regions.

IT-101 (Formerly J114) 3-0-3  
Introduction to Information Systems  
This is an introductory course in Continuing and Professional Studies for students with no prior computer experience. The course is designed to teach students to use informatics that combine computer science, information processing, database management, word processing, spreadsheets and information presentation skills to facilitate management and processing of industry-related data.

IT-315 (Formerly J501) 3-0-3  
Information Technology I  
This course prepares future managers to be effective organizers and users of modern information technologies. Emphasizing a global perspective of information technology and related business issues, students learn to view IT in broad terms and function as “internal consultants” to functional areas in an organization. The course covers office and manufacturing automation, telecommunications, decision-support systems and executive information systems.

Students learn to integrate the informational needs of the organization with suppliers, customers and other decision-making entities. Course introduces management techniques to support effective employees whose actions are guided by the power of modern information technologies.

IT-317 (J502) 3-0-3  
Information Technology II  
This course introduces the fundamentals of computer-application development. Students will develop basic facility in digital media, electronic publishing, and decision support systems. The course also includes the use of information technologies for the automation of both office and factory environments.  
Prerequisite: IT-315

IT-320 (Formerly J503) 3-0-3  
Database Management  
This course will provide an introduction to the creation and management of electronic databases. Topics covered include database design, relationships, normal forms, structured query language, importing data and creating reports and forms. Data-modeling techniques will also be covered.  
Prerequisite: IT-317

IT-410 (Formerly J505) 3-0-3  
Needs Assessment  
This course provides an introduction to assessing the informational needs of an organization. Topics covered include equipment requirements, information design and technology integration as they impact the needs of an organization. Special attention will be given to usability studies and design development.  
Prerequisite: IT-320

IT-499 (Formerly J510) 3-0-3  
Project Management  
This course focuses on strategic management of technology projects. Acting as a project manager, students learn techniques to elicit the support and acceptance of new technologies within organizations. Through the creation of a project plan, students learn how to integrate informational technologies into an organization’s mission.  
Prerequisite: IT-410

LAWEN-301 3-0-3  
Planning for Law Enforcement Organizations  
This course covers strategic and tactical planning broadly conceived. The focus is on law enforcement, however theories, examples and perspectives will be drawn from other fields in the nonprofit sector. Topics to be addressed include forecasting, personnel planning, GIS, and personnel and resource management issues including budgeting and program evaluation.

LAWEN-310 3-0-3  
Contemporary Law Enforcement Strategies  
Understanding that law enforcement professional must attain an in-depth understanding of contemporary policing strategies and critical issues face law enforcement today, students will examine crime analysis, patrol techniques, training, information systems/GIS as well as other issues such as government relations and criminology.
LAWEN-410 3-0-3
Advanced Law Enforcement Theory and Management
This course focuses on the underlying theories of expert practices in police management and administration. Students will examine ethical issues specific to the field of law enforcement. This course builds on knowledge obtained through LAWN-310 and utilizes academic and professional literature to address critical issues in the field.
Prerequisite: LAWEN-310

LAWEN-499 3-0-3
Capstone Seminar and Applied Project in Law Enforcement Leadership
Using concepts learned in CPS Core Coursework and Law Enforcement Leadership courses, students conduct an in-depth analysis of the law enforcement industry and design an innovative law enforcement initiative. Students will use knowledge of statistical analysis, process planning, and data gathering to complete their analysis and report on a sector or organization in the industry. Students will demonstrate their ability to assess the efficacy of a program design as well as describe the project planning and implementation processes. Students’ projects will be evaluated based on the capacity to incorporate familiarity with systems and planning in a comprehensive project analyzing the dynamics of the law enforcement industry in the context of their project.
Prerequisites: LAWEN-301, LAWEN-310, LAWEN-410, MGMT-320

MGMT-330 (Formerly J123) 3-0-3
Organizational Ethics
This Continuing and Professional Studies Core course deals with current controversial issues in organizational ethics. The course will be conducted as a seminar. Students will research specific topics and present this information to other seminar members.

MGMT-351 (Formerly J101) 3-0-3
Leadership Theory
This Continuing and Professional Studies Core course is designed to increase awareness and broaden both knowledge base and application of leadership theory, trends, and applications. Individual leadership styles will be assessed with a focus on viably integrating a full range of leadership skills within the rapidly changing workplace. Designed to provide students with knowledge regarding the managerial process, planning, organization, strategic leadership and change-oriented leadership. Theories related to organizational structure, competition, leadership, management strategy, communication and social responsibility will be examined.

MKTG-320 (Formerly J122)
Visual Literacy
A survey course in which students will examine, appreciate and communicate with visual media. Students will enhance their capacity to look at a design and evaluate what is effective, with an understanding of design language and the process by which good communication is created.

SOC-310 (Formerly J203) 3-0-3
The Social Science of the Workplace
This General Education Core course examines the contemporary world of work using analytic tools from a variety of disciplines, including sociology, psychology, and anthropology. Key themes include: the social organization of work, contemporary changes in occupations and professions, technology and the information age, the impact of globalization on work, the role of class, gender, race and ethnicity in shaping work experiences and worker identities, and the relationship between work and family. Students learn about basic social science research techniques, practice interpreting data and thinking critically about contemporary work issues, and develop their own arguments about the world of work.

STAT-311 (Formerly J112) 3-0-3
Finding and Evaluating Statistical Data
A Continuing and Professional Studies Core course in data gathering and analysis, focusing on the use of demographic and economic data that inform organizational decision making. Students will learn basic descriptive statistical measures and probability theory and develop an understanding of the basis for statistical decision-making techniques. A variety of resources for gathering data related to demographics, socio-economic and sociogeographic trends, economics data, and trends in business and industry will be presented. Students will also review and apply a variety of descriptive and/or inferential statistics to make meaning of these data. Students will learn to manipulate data using statistical software.

The following University courses have been approved for accelerated delivery format (available to students matriculated in accelerated programs only).
Academic Policies and Procedures

Absence Due to Illness

Any student who is unable to attend classes for five consecutive days or more due to illness must report to Student Health Services or a private physician during the period of illness. Once a diagnosis is documented in Student Health, a student may request that a “Verification of Illness Memo” be sent to designated faculty members and the appropriate academic advisor. The diagnosis will not be disclosed in the memo. In certain situations, the memo may state that the student should report to Student Health Services for clearance prior to returning to class. This memo will not supersede the specific attendance policy for an instructor. If a student is diagnosed with a communicable illness that poses a possible threat to the University community, a general notification may be sent to those at risk for exposure to the illness per the recommendation of the Philadelphia Health Department. Efforts will be made not to disclose the infected student’s name. The University cannot assume responsibility for deductions and assumptions made by others, but will make every effort to anticipate and address any concerns.

Students who are diagnosed with a communicable disease and those not immunized against an offending vaccine-preventable disease may be required to leave campus until their illness is resolved. For information, contact the Student Health Center at 215.951.2986.

Access to and Release of Student Records

In accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA), Philadelphia University will neither deny nor effectively prevent current or former students of the University the right to inspect and review their education records. Students will be granted access to their records within a reasonable period of time after filing a request.

Students have the right to request the amendment of their education records to ensure that the records are not inaccurate, misleading or otherwise in violation of their privacy or other rights.

In addition, the University will not release or provide access to education records, except “directory” information, without the written consent of the student to any individual, agency or organization (except as provided by the Act). Philadelphia University designates the following items as “directory” information: student name, addresses, telephone numbers, major field of study, participation in officially recognized activities and sports, dates of attendance, degrees and awards received, most recent previous school attended and photograph. The University may disclose any of those items without prior written consent, unless notified in writing on the form available from the Registrar no later than the fifth day of the fall term, spring term or summer session. Such notice shall be effective only until the end of the academic year.

Confidentiality of information is highly respected at Philadelphia University. If students wish any of their education record available to anyone, a consent form is available in the Office of the Registrar. If there is no consent form, information will not be disclosed except to the appropriate person(s) in connection with an emergency, if the knowledge of such information is necessary to protect the health or safety of the student or other persons.

Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of the Act and the U.S. Department of Education regulations on the Act.

Students should refer to the Student Handbook published and distributed annually by the University and available online at www.PhilaU.edu/studenthandbook to obtain further information about student records, policies and procedures and the FERPA.

Academic Advising

Philadelphia University’s academic-advising model supports students throughout their academic career at the University. Academic advisors assist students in developing suitable educational plans, understanding program requirements and University policies, becoming aware of University resources, evaluating their academic progress, and clarifying realistic life and career goals. Since such advising is viewed as a form of teaching, faculty serve as advisors throughout a student’s tenure at the University.

Advising for first-year students and students who have not declared their majors is provided by the Learning and Advising Center. Advisors in the Learning and Advising Center actively reach out to their advisees in order to assist them in their academic life. Students are expected to check their campus mailboxes and emails regularly for University and advisor communications, to respond to their advisors’ requests for consultation, to meet with their advisors periodically, to review the University catalog and be familiar with the requirements of their programs, and to maintain accurate personal academic records.

Other advising services for students in the Learning and Advising Center include transfer advising for all incoming transfer students and majors advising for students who have not declared a major or who are thinking of changing their major.

Upper-level students who have declared their majors are assigned advisors in their schools. After the first year, students are expected to assume increasing responsibility for their progress toward graduation. While upper-level advisors are available to discuss program requirements and University policies and to refer students to appropriate campus resources, emphasis is placed upon the refinement of educational, personal and career goals.

Advising for all evening-division students is centralized, and advising contacts are made through the Office of Continuing and Professional Studies in The Tuttleman Center.

Academic Honors

Undergraduate students enrolled in at least 12 semester credits, nine of which are graded, and who earn a semester grade point average of 3.60 or better are eligible for the Dean’s List for that semester.
A candidate for graduation who earns a cumulative grade point average of 3.60-3.79 will be graduated "cum laude," or "summa cum laude" if their final average is 3.80 or better.

Additional awards are presented at the annual University Awards Ceremony and during Commencement.

**Academic Integrity**

Students are responsible for the content and integrity of all academic work submitted, such as papers, reports, designs, presentations and examinations. Students are equally responsible for the content and integrity of all group projects.

Briefly, students will be in violation of the Academic Integrity Policy for the following offenses: cheating, fabrication, plagiarism, facilitating academic dishonesty, or denying others access to information or material. The complete text of the Academic Integrity Policy is published in the University’s Student Handbook (www.philaU.edu/studenthandbook) and is also available in the deans’ offices and in the Office of Academic Affairs.

Philadelphia University takes academic integrity very seriously. Instances of academic dishonesty will not be tolerated, and students violating the University’s Academic Integrity Policy will be subject to appropriate sanctions.

**Academic Standing**

**Probation**

Academic probation is a means of emphatically informing students that their record is unsatisfactory while there is still time to remedy the situation. Students will be placed on scholastic probation whenever their records indicate that normal progress toward a degree is in jeopardy. Probation is not meant to be a penalty, but should be interpreted as a serious warning to improve the quality of academic work. Students on probation are not allowed to take more than a normal course load, and may be required to take a reduced course load. Students on probation will not be able to participate in intercollegiate athletics or hold an elected or appointed office in any SGA-recognized student organization. Students on probation should reduce the number of hours of employment whenever possible and limit participation in any other extracurricular activities that interfere with the performance of their academic work.

**Dismissal/Terminal Probation**

If the student is placed on probation at the end of a given semester and remains on probation at the end of the following full-time semester (or fifteen credits if part-time), the student will be dismissed from the University. Students, however, have the opportunity to appeal their dismissals and to have a review of their records and an interview with the Undergraduate Academic Standards Committee (at a specified date) in either January for fall dismissals, or June for spring dismissals.

The committee may agree to place the student on terminal probation and stipulate certain actions that the student must take during the following semester. Details of such actions will be presented to the student as a formal letter after the personal review.

The dismissal, however, may be sustained as a result of the personal review. Dismissal from the University may be appealed to the vice president for Academic Affairs in writing within ten days of written notification. The vice president for Academic Affairs may sustain the dismissal or allow the student to continue on terminal probation.

Should students be readmitted to the University following either appeal to the Undergraduate Academic Standards Committee or the vice president for Academic Affairs, a semester will be stipulated for their readmission. If students wish to enter more than one year from the original semester indicated on their letter, their request must be resubmitted to the Undergraduate Academic Standards Committee for re-evaluation.

Students placed on terminal probation must meet the stipulations established for them. Failure to do so will result in automatic dismissal from the University. This dismissal may be appealed to the vice president for Academic Affairs. See “Re-entry to the University.”

**Address or Name Changes**

It is the student’s responsibility to see that a valid permanent address and current name is on file in the Office of the Registrar. Any change of name or permanent or local address must be reported to the Office of the Registrar when it occurs. A forwarding address should also be given to the U.S. Postal Service.

International students must also contact the director of International Student Programs when changing their name or address.

<table>
<thead>
<tr>
<th>Prior Academic Standing</th>
<th>One Term</th>
<th>New Cumulative GPA</th>
<th>New Academic Standing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>(if full-time)</td>
<td>2.00 or higher</td>
<td>Good</td>
</tr>
<tr>
<td>Probation</td>
<td>or 15 credits</td>
<td>less than 2.00</td>
<td>Probation</td>
</tr>
<tr>
<td>Probation</td>
<td>(if part-time)</td>
<td>2.00 or higher</td>
<td>Good</td>
</tr>
<tr>
<td>Withdrawal/Probation</td>
<td></td>
<td>less than 2.00</td>
<td>Dismissal</td>
</tr>
</tbody>
</table>

The Undergraduate Academic Standards Committee periodically reviews the student’s cumulative record in order to ensure good academic standing. Of primary concern to the committee in determining academic standing is normal progress toward degree requirements. When the committee notes problems in academic performance that may jeopardize a student’s standing, the student will be notified.
## Advanced Placement

Students who have taken an Advanced Placement (AP) exam and received the necessary minimum score will receive credit for the course listed below. These guidelines will go into effect for students entering the University in January 2004.

<table>
<thead>
<tr>
<th>AP Exam Name</th>
<th>Score</th>
<th>Course Equivalents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>4,5</td>
<td>ARTH-101 or ARTH-102</td>
</tr>
<tr>
<td>Art-Studio/Drawing</td>
<td>4,5</td>
<td>DRAW-101</td>
</tr>
<tr>
<td>Art-Studio/General Art</td>
<td>4,5</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Biology (non-science major)</td>
<td>3,4,5</td>
<td>BIOL-101</td>
</tr>
<tr>
<td>Biology (science major)</td>
<td>4,5</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Chemistry (non-science major)</td>
<td>3,4,5</td>
<td>CHEM-101</td>
</tr>
<tr>
<td>Chemistry (science major)</td>
<td>4,5</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Comparative Government &amp; Politics</td>
<td>3,4,5</td>
<td>Social Sciences I (3 cr.)</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3,4,5</td>
<td>MIS-405</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>3</td>
<td>MIS-405</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>4,5</td>
<td>MIS-406</td>
</tr>
<tr>
<td>Economics-Macroeconomics</td>
<td>3,4,5</td>
<td>ECON-205</td>
</tr>
<tr>
<td>Economics-Microeconomics</td>
<td>3,4,5</td>
<td>ECON-206</td>
</tr>
<tr>
<td>English (Language)</td>
<td>4,5</td>
<td>WRTG-101</td>
</tr>
<tr>
<td>English (Literature)</td>
<td>3,4,5</td>
<td>Humanities I (3 cr.)</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3,4,5</td>
<td>SCI-101 or Free elective (3 cr.)</td>
</tr>
<tr>
<td>European History</td>
<td>3,4,5</td>
<td>Historical Understanding I (3 cr.)</td>
</tr>
<tr>
<td>French (Language)</td>
<td>3,4,5</td>
<td>Language Studies (3 cr.)</td>
</tr>
<tr>
<td>French (Literature)</td>
<td>3,4,5</td>
<td>Language Studies (3 cr.)</td>
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<tr>
<td>German (Language)</td>
<td>3,4,5</td>
<td>Language Studies (3 cr.)</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3,4,5</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Latin (Literature)</td>
<td>3,4,5</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Latin (Virgil)</td>
<td>3,4,5</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Mathematics-Calculus AB</td>
<td>3</td>
<td>MATH-102</td>
</tr>
<tr>
<td>Mathematics-Calculus AB</td>
<td>4,5</td>
<td>MATH-111</td>
</tr>
<tr>
<td>Mathematics-Calculus BC</td>
<td>3</td>
<td>MATH-111</td>
</tr>
<tr>
<td>Mathematics-Calculus BC</td>
<td>4,5</td>
<td>MATH-111 and MATH-112</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3,4,5</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Physics B (non-science major)</td>
<td>3,4,5</td>
<td>PHYS-101</td>
</tr>
<tr>
<td>Physics B (science major)</td>
<td>3,4,5</td>
<td>PHYS-101 or Free elective (3 cr.)</td>
</tr>
<tr>
<td>Physics C</td>
<td>3,4,5</td>
<td>PHYS-201 &amp; PHYS-201L or Free elective (3 cr.)</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>Free elective (3 cr.)</td>
</tr>
<tr>
<td>Spanish (Language)</td>
<td>3,4,5</td>
<td>Language Studies (3 cr.)</td>
</tr>
<tr>
<td>Spanish (Literature)</td>
<td>3,4,5</td>
<td>Language Studies (3 cr.)</td>
</tr>
<tr>
<td>Statistics</td>
<td>3,4,5</td>
<td>STAT-201</td>
</tr>
<tr>
<td>United States History</td>
<td>3,4,5</td>
<td>Historical Understanding I (3 cr.)</td>
</tr>
<tr>
<td>U.S. Government &amp; Politics*</td>
<td>3,4,5</td>
<td>Social Sciences I (3 cr.)</td>
</tr>
<tr>
<td>World History</td>
<td>3,4,5</td>
<td>Historical Understanding I (3 cr.)</td>
</tr>
</tbody>
</table>

*If both Comparative Government & Politics and U.S. Government & Politics are taken, one becomes 3 credits free elective*
Appeal of Adverse Decisions

Students have the right to question or appeal any decisions that are made regarding them by any official or committee of the University. The first step of the appeal process is to discuss the decision with the individual or committee responsible for that decision. If a satisfactory resolution of the problem cannot be reached at that level, students should ask what additional avenues of appeal are available.

A specific procedure has been established for students who wish to express concern over academic matters. Students should meet the following persons in this order:

1. **Instructor** Arrange an appointment with the instructor in whose course the concern arises. If the concern involves more than one student, a joint appointment should be arranged so that at least several students are present with the instructor. The concern should be explained in detail and concrete remedies suggested. The instructor should provide a specific response.

2. **School dean** If not satisfied with the instructor’s response to the concern, students should make an appointment with the dean of the appropriate school. Again, the concern should be explained in detail, and the substance of the meeting with the instructor should be reported. The school dean will consult with the instructor in question and provide a concrete response within a week.

3. **Vice president for Academic Affairs** If not satisfied with the response of the school dean, students may arrange an appointment with the vice president to explain the concern and report on the discussions with both the instructor and the school dean. After consulting with either or both of these persons, the vice president should provide a concrete response within a week.

The matter should be handled informally. If no satisfactory resolution is obtained, a formal letter should be written to the vice president setting forth the issue in detail. The vice president should respond in writing within a week.

Attendance

All students are responsible for, and grades may be determined by, all requirements outlined by the instructor’s syllabus. This may include class attendance and participation, as well as the completion of all assignments, the reading of all required materials, the completion of laboratory assignments and/or field trips and the taking of the required examinations.

Any students with absences due to extended illness should contact Health Services. This will not, however, override an instructor’s attendance policy. Students with excessive absences due to personal circumstances should contact the Counseling Center. Students are allowed two absences in physical education courses.

Auditing a Course

A student who wishes to attend a course regularly, but does not wish to receive credit for the course, may request permission to audit from the dean of the school in which the course is offered. The dean will, in turn, obtain permission from the faculty member.

Students are expected to meet the requirements for auditors, which are established by the faculty member teaching the course. Following the completion of the course, the faculty member will determine whether these requirements have been satisfied and, if so, the notation of “AU” will be posted on the transcript.

Tuition and fees to audit the course are the same as those when taking the course for credit.

Students must register for an audit course the same way they would for any other. In addition, they must secure from the Office of the Registrar or Continuing and Professional Studies a “Request for Permission to Audit a Course” form requesting permission to audit, and return the completed form by the last day for schedule changes. At that time, the decision becomes final.

Audit courses cannot be applied toward degree requirements.

See “Schedule Changes.”

Cancellation of Classes

Cancellation is automatic upon failure of the instructor to appear 15 minutes after the normal starting time of that class, unless notice is sent prior to that time that the instructor will be late.

In the event of inclement winter weather, KYW 1060AM will make an announcement of the snow number. The number for cancellation of classes:

<table>
<thead>
<tr>
<th>Day</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evening (announced after 3:00 pm)</td>
<td>112</td>
</tr>
<tr>
<td>Main Campus</td>
<td>2230</td>
</tr>
<tr>
<td>Bucks County Campus</td>
<td>2751</td>
</tr>
</tbody>
</table>

Changing Curriculum (Major)

Students wishing to change their curricula (majors) must obtain the proper form from the Learning and Advising Center, the Office of the Registrar or the Office of Continuing and Professional Studies prior to effecting the change. Curriculum changes require the approval of the director of the Learning and Advising Center or the Office of Continuing and Professional Studies, and the Office of the Registrar.

When students transfer from one curriculum (major) to another, only those courses applicable to the new curriculum need to be counted in the cumulative average.

For elective courses, students may use previously passed courses from the former curriculum (consistent with restrictions placed on elective courses in the new program).

In connection with the formal change of curriculum, students, in consultation with the director of the Learning and Advising Center (or an upper-division advising coordinator, depending on the student’s year of enrollment), will indicate which courses (if any) are not to be retained in the new curriculum. The decision of which, if any, courses are to be removed from the cumulative average must be indicated on
the change of curriculum form when it is submitted. The decision to remove courses can be made only once, and the resulting approved decision will be final. The recalculation of the student’s average will not be done until the end of the first semester in the new curriculum.

International students must also contact the director of International Student Programs when they plan to change majors.

**Compliance with University Regulations**

By accepting registration, students agree to accept responsibility for compliance with academic requirements and conduct regulations.

It is recognized that, once registered, students have basic rights, but the University reserves the right to require students to withdraw at any time if they fail to live up to their responsibilities to maintain the standards of conduct and scholarship.

Due-process procedures will be followed in all violations that could result in the dismissal of a student from the University.

**Computer Resources**

The Office of Information Technology (OIT) is responsible for management, operation, security and support of the information-technology environment at Philadelphia University. In accordance with established policies, all members of the Philadelphia University community are responsible for effective, efficient, ethical and acceptable use of information resources. The complete text of the University’s “Information Technology Policy” is published in the University’s *Student Handbook* and is available online at www.PhilaU.edu/studenthandbook.

**Conduct**

The University tries to minimize the number of specific regulations governing conduct, assuming that students are adults and mature enough to establish a code of conduct that will reflect well on themselves and the University. The University expects students to perform their work honestly, pay debts promptly, comply with public laws and respect the property of the University, the community and fellow students.

All individuals and organizations affiliated with the University or using the name of the University are expected to conduct their affairs in a manner reflecting credit on the University.

The University does have regulations governing certain types of conduct. These are stated in detail in the *Student Handbook*, which is distributed each year to all freshmen and available online at www.PhilaU.edu\studenthandbook.

A Student Conduct Committee reviews serious cases involving violations of conduct standards and regulations, including academic dishonesty. The operation of this committee is outlined in the *Student Handbook*.

**Course-by-Appointment (CBA)**

Students may be permitted to take a “course-by-appointment” for an existing catalog course that anticipates low enrollment. The University registrar lists such courses on the master schedule without indicating days or times. The assigned faculty member subsequently contacts all students who register, and a mutually convenient day and time is established. The course subsequently follows the normal syllabus, assignments, and examinations.

If (enrollment in) an unlisted course-by-appointment is being requested:

- Student obtains the required form from the Office of the University Registrar or the Office of the Dean, prepares a written statement detailing the reason(s) for a CBA at this time, and verifies that the prerequisite(s) is completed.
- Student must make a request to the dean of the School in which the course is offered for permission to take a CBA not listed on the master schedule. If approved, the dean’s office will contact an appropriate faculty member willing to undertake this responsibility. The School reserves the right to identify courses that may not be taken by appointment regardless of scheduling conflict or anticipated date of graduation.
- The completed form, with the signature of the academic advisor and the designated faculty member, will be submitted to the dean of the School in which the course is given, and if approved, will be then signed by the student and presented to the registrar Office of the University Registrar.
- Registration must be completed before the end of the (add/drop) period allowed for schedule changes. See “Independent Study.”

**Course Load and Course Overload**

A regular undergraduate student when registered for 12 or more credits hours per semester achieves a full-time load. A regular undergraduate student when registered for less than 12 credit hours per semester achieves a part-time load.

Comprehensive fees for the term will cover 12 or more credits and fewer than six courses per semester. Undergraduate students registered for six or more courses will be charged at a per credit rate.

A maximum of 18 semester credit hours may be taken in the fall or spring semester. No student may exceed that limit without the permission of the advisor and dean of the School responsible for the student’s degree.

A maximum of 14 total credits may be taken during the summer. The summer restriction pertains to any combination of day, evening and/or approved courses to be taken at another institution. Note that approval will not be given to a student to take more than two courses during the summer term at another institution.

International students must also contact the director of International Student Programs regarding plans to enroll for less than full-time (12 credit) status during a fall or spring semester.

See “Financial Information.”
Courses Taken Elsewhere

From time to time, matriculated students may find it necessary to take courses at another college or university. Students may also seek permission to take courses at another institution during the academic year, if specific courses are not available at Philadelphia University.

Permission to take courses at another institution will only be granted if the courses at the other institution are determined to be equivalent to courses at Philadelphia University by the respective school dean after a faculty review of the corresponding course description. Generally, permission to take courses equivalent to Philadelphia University junior- and senior-level courses will be granted only if the other institution is a four-year college or university. Students may not take junior- and senior-level courses at a two-year or community college.

Students must fulfill their residency requirement at Philadelphia University. See “Residency Requirements.”

If the student earns the equivalent grade of “C-” or higher for an approved course, Philadelphia University will grant credit for the course. Students should not take courses at other institutions on a “Credit/No Credit” or “Pass/Fail” basis, as the University will not accept such a grade toward a Philadelphia University degree. Grades earned at another college or university are NOT made part of the student’s Philadelphia University transcript; rather, only the credits will be considered for transfer credit.

It is the responsibility of the students to:
• Secure a catalog description from the other institution and verify that the intended course will be offered.
• Obtain a “Permission to Take Courses at Another Institution” form at the Learning and Advising Center. Submission of the completed form must be done at least six weeks before courses begin at the other institution.
• Take the form and the catalog course description(s) to the following individuals for review and approval: (1) academic advisor to verify the requested equivalent course is a degree requirement; (2) a faculty member in the appropriate academic area to verify equivalency of the intended course; and (3) the dean who is responsible for similar course offerings at Philadelphia University.
• Submit the completed form to the vice president for Academic Affairs for final review and approval. As a general rule, a student will not be permitted to take a course at another institution if the course is being offered by Philadelphia University and if, at the time the student wishes to take the course, the student is residing within 30 miles of the University. Students should not plan to take more than two courses at another institution in any term, including the summer. Students must be in good academic standing at the University and must be in residence at Philadelphia University during the semester immediate preceding the awarding of the degree.

If the vice president approves the request, a letter will be sent to the college or university for permission to take the course(s). Copies will be supplied to the student, to the student’s advisor, to the registrar and to the dean of the school that has jurisdiction over the student’s curriculum.

The student must make arrangements for an official transcript to be sent to the Office of the Registrar after completion of the off-campus course work. No credit will be evaluated until that office has received an official transcript. No credits will be transferred without prior approval from the vice president for Academic Affairs.

Credit by Examination

The University recognizes the fact that learning also takes place beyond formal classroom situations. Since the function of credit by examination is to provide students the opportunity to be placed in the most advanced courses for which they are qualified, all examinations must be completed within two regular academic semesters (30 credits) of the student’s initial matriculation.

National Testing Agencies

The University will grant credit to students who obtain satisfactory grades in specific subject examinations developed by the Advanced Placement Program (AP) and College Level Examination Program (CLEP). Students who enter the University with AP or CLEP credit will have that credit evaluated in conjunction with the guidelines established for granting transfer credit. Matriculated students should check with the Learning and Advising Center for current CLEP guidelines. Information concerning these agencies can be obtained from the University or the agencies mentioned above.

In cases where several CLEP examinations are taken, credit from the subject examination will be assigned before credit from the general examination. Credit assigned from successful completion of the general examination may not be utilized for free electives or upper-division degree requirements.

See “Advanced Placement.”

Philadelphia University Challenge Examinations

Students who desire credit for courses taken at non-accredited institutions, for industrial/work experience or for other appropriate life experience may arrange for a challenge examination. If the subject is not covered by the national testing agencies listed above, a student may receive credit for courses offered by the University by making arrangements for an examination to be given by the school offering the course. Satisfactory evidence of adequate and appropriate preparation must be presented before the examination is prepared. If it appears that the student has adequate preparation, the student pays a fee, presents the receipt to the school and takes an examination. The school will send the Office of the Registrar the receipt for the examination fee along with written notification of a passing grade for the examination. Only one examination will be allowed for any one course. Students are ineligible for a challenge examination if they have previously enrolled in the same course at Philadelphia University. See “Financial Information.”
Credit/No Credit Option

Students are allowed to take up to four courses during their enrollment in a bachelor’s degree program on a “Credit/No Credit” (CR/NC) basis, not counting any CR/Internship course.

Any course may be taken on this basis except required courses offered by the School of Science and Health and in the School of Liberal Arts (L61X, and L911 Contemporary Perspectives).

To obtain credit, students must earn a “C-” or better in the course. The grade point average will not be affected whether credit is received for the course or not, except in certain cases where the option is used to repeat a course.

Guidelines are available in the Office of the Registrar to suggest when this option is/is not an advisable choice.

See “Repeating Courses” and “Schedule Changes.”

Declaring a Major

Students at Philadelphia University registered as Undeclared are urged to declare a major after completing 30 credits. However, students are required to declare a major after completing 60 credits (30 credits in residence for transfer students). Students who are unsure about their choice of major should take advantage of majors advising at the Learning and Advising Center.

Disability Services

The Office of Services for Students with Disabilities provides, on an individual basis, reasonable accommodations to students with hearing and visual impairments, mobility impairments, learning disabilities and attention deficit disorders, chronic illnesses, and psychological impairments that may affect their ability to fully participate in program or course activities or to meet course or curricular requirements. This office functions to determine qualified disability status and to assist students in obtaining appropriate and reasonable accommodations and services. Accommodations may include, but are not limited to, testing or classroom adjustments, tutoring, and use of adaptive equipment. Services provided are designed to encourage independence and self-advocacy, backed by a comprehensive system of supports.

Students should contact the Office of Services for Students with Disabilities for additional information, guidelines and procedures at 215.951.6830.

Division Change

Students wishing to transfer to Continuing and Professional Studies to finish their degree requirements should complete a Continuing Studies Application for Admission form available at that office in The Tuttleman Center. If a student will ultimately be certified for graduation by the undergraduate division, academic advising will remain the responsibility of the day-division advisor.

Students wishing to transfer to the undergraduate division to finish their degree requirements should complete an Application form available at the Office of Admissions. If the director of Student Services will ultimately certify a student for graduation, academic advising will remain the responsibility of that office.

Students who have been dismissed from the University for academic reasons must apply to the appropriate division and be readmitted by the Undergraduate Academic Standards Committee before registering for additional courses at the University.

See “Academic Standing.”

Double Degree/Second Baccalaureate Degree

Students who have received one baccalaureate degree from Philadelphia University and who wish to seek a second such degree in another curriculum are required to complete all the additional course requirements and fulfill a second residence requirement of a minimum of 33 credits. At least 12 credits must be in the new major. Students interested in this possibility should consult with their faculty advisor or the Office of Continuing and Professional Studies for further information.
Double Majors

Students wishing to earn a double major may do so by meeting all requirements for one “primary” major and completing all required courses in the “secondary” major. Students must complete at least twelve credits in residence in both the primary major and the secondary major. The same course(s) may not be used to satisfy residency requirements in both majors.

Students may utilize credits allocated to a minor or to free electives in the “primary” major to satisfy requirements for the “secondary” major. Students selecting a double major will be exempt from any mandatory minor requirements that would otherwise apply. The combined requirements may necessitate completion of a greater total number of credits than either major taken separately.

Students wishing to pursue a double major should discuss their options first with their faculty advisor and then with a faculty advisor from the “secondary” major. A list of required courses for the “secondary” major, approved by both advisors, must be added to the advising file for certification purposes.

Students must also submit the “Approval of Double Major” form, signed by the certifying officer of the school in which the “primary” major is being completed, to the Office of the Registrar so the student’s transcript will record completion of the two majors’ degree requirements. Only one baccalaureate degree will be conferred.

Dropping Courses

A course must be dropped within 10 weeks of the start of a fall or spring semester, and specific deadlines for dropping special accelerated courses or summer sessions are also published by the Office of the University Registrar and the Office of Continuing and Professional Studies.

A student must submit a signed Drop/Add form to the Office of the University Registrar or the Office of Continuing and Professional Studies. If this is done within the time limit described, the course will not appear on the student’s transcript. If the student fails to officially withdraw within this period, a grade of “WF” will appear on their transcript and affect GPA calculations.

In exceptional cases a student may request special permission from the vice president for Academic Affairs to drop a course after the standard “drop” period. In such cases a grade of “W” will appear on the transcript for that course and will not affect GPA calculations.

Fundamentals courses may not be dropped.

See “Leave of Absence/Withdrawal Policy” and “Refund Policy.”

Final Examinations

Final examinations are scheduled during a one-week period at the end of each semester. Examination periods are two hours in length.

The University has a policy prohibiting the administration of any final examinations during the last “instructional” week of the semester, in place of an examination during the scheduled final exam week.

No student is required to take more than three final examinations during a given day. If, because of this policy, it is necessary for a student to have any examinations rescheduled, arrangements must be made with the University registrar no later than a week in advance of the start of exam week.

If a student must miss a final examination, notice should be given to the course instructor or, if the instructor is unavailable, to the school administrative assistant (or the Office of Continuing and Professional Studies) in advance of the scheduled exam.

Fundamentals Courses

The Fundamentals courses include WRTG 099 (Fundamentals of College Writing), MATH 099 (Fundamentals of College Mathematics) and READ 099 (Fundamentals of College Reading and Study Skills). English as a Second Language (ESL) sections of WRTG and READ 098 are also available.

For purposes of calculating the student’s course load, each of these courses counts as three credit hours. However, they will not count as credits toward graduation. Fundamentals courses may not be used to satisfy the residency requirement.

Students must earn a “C” (2.00) or better to receive credit for Fundamentals courses. Grades in Fundamentals courses enter into the calculation of a student’s grade point average.

Placement into Fundamentals courses is determined by the results of a comprehensive testing program, which is administered during University S.T.A.R.T. sessions. Day division students complete placement examinations in the areas of mathematics, reading and writing.

Full-time students who are required to take Fundamentals courses (WRTG 099 and WRTG 098 ESL Fundamentals of College Writing, MATH 099 Fundamentals of College Mathematics and/or READ 099 and READ 098 ESL Fundamentals of College Reading and Study Skills) must complete these courses within three semesters of matriculation. Full-time students must take at least one of these courses each semester until the requirements are met. Part-time students who are required to take Fundamentals courses must complete these requirements within the first 30 credits for which they register. Part-time students are encouraged to enroll in Fundamentals courses during the first semester for which they register.
Students who are required to take Fundamentals of College Writing must pass that course before taking any other writing or literature courses. Students who are required to take Fundamentals of College Mathematics must pass that course before taking any other mathematics course and certain science courses. Although Fundamentals of College Reading and Study Skills is not a prerequisite for specific courses, it must be completed within three semesters of matriculation.

Students may not withdraw from a Fundamentals course. The director of the Learning and Advising Center must approve any exceptions in writing. Students who do not receive a grade of “C” or better in a Fundamentals course must repeat that course in the next semester in which it is offered. Students who fail to complete a Fundamentals course successfully after two registrations may not register for that course a third time without the permission of the director of the Learning and Advising Center.

Students who fail to complete all Fundamentals course requirements within the prescribed time will be dismissed from the University in accordance with the dismissal procedures outlined by the Undergraduate Academic Standards Committee. A successful appeal may permit students to enroll only in Fundamentals courses for one subsequent semester.

Students must seek permission to take Fundamentals courses at another institution, and they must retake the University’s placement test and receive a passing score before receiving credit for the course and enrolling in any subsequent writing, math or reading courses.

Grade Changes

All grades become part of the permanent records of the University at the end of the tenth week of the semester (a proportional period of time in summer sessions) subsequent to that for which the grades were awarded. Following that time, no grades may be changed without the written approval of the dean of the school offering the course and the vice president for Academic Affairs.

This in no way affects the institutional policy regarding the grade of “Incomplete.”

Grade Point Average

The unit of credit is the semester hour. Quality points are assigned to letter grades according to the following scale:

- A = 4.00
- A- = 3.67
- B+ = 3.33
- B = 3.00
- B- = 2.67
- C+ = 2.33
- C = 2.00
- C- = 1.67
- D+ = 1.33
- D = 1.00
- F = 0.00

The quality points earned are computed by multiplying the numerical value of the letter grade by the number of semester credit hours for the course. The Grade Point Average (G.P.A.) is determined by dividing the total quality points earned by the total semester credit hours attempted.

A sample calculation follows:

<table>
<thead>
<tr>
<th>Course Number/Name</th>
<th>Credits</th>
<th>Letter Grade</th>
<th>Quality Points Value</th>
<th>Quality Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG-101</td>
<td>3</td>
<td>B</td>
<td>3.00</td>
<td>9.00</td>
</tr>
<tr>
<td>MATH-111</td>
<td>4</td>
<td>C+</td>
<td>2.33</td>
<td>9.32</td>
</tr>
<tr>
<td>TEXT-101</td>
<td>3</td>
<td>A</td>
<td>3.67</td>
<td>11.01</td>
</tr>
<tr>
<td>ENGR-104</td>
<td>3</td>
<td>F</td>
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<td>0.00</td>
</tr>
<tr>
<td>CHEM-103</td>
<td>4</td>
<td>D</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>PE-25</td>
<td>.5</td>
<td>CR</td>
<td>——</td>
<td>——</td>
</tr>
</tbody>
</table>

Grade Point Average (GPA) = Quality Points Earned / Credits Attempted = 33.33 / 17 = 1.96

Grade Reports

Academic reports (grades) are available to students at the end of each semester through Web Advisor accounts.

Grading System

The University uses a plus/minus grading system. The passing grades for the University are “CR,” “A,” “B,” “C” and “D.” A grade of “F” signifies that the course has been failed.

Grade descriptions are listed below:

- **A = Excellent.** Awarded to students who demonstrate an excellent understanding of the subject matter, and who have achieved outstanding results in fulfilling the course objectives.
- **B = Above Average.** Awarded to students who demonstrate above-average understanding of the subject matter, and who show consistent achievement beyond the usual requirements of the course.
- **C = Average.** Awarded to students who perform at the satisfactory level, and demonstrate acceptable levels of understanding of the subject matter commensurate for continued study in the next successive course.

(Note: To graduate, a student must have a cumulative grade point average of 2.00 or better.)
D = Below Average.
Awarded to students as evidence of less than average understanding of the subject matter and of weak performance. It indicates insufficient preparation for students to enroll in any course reliant upon an acceptable level of understanding of the particular subject matter. A grade of “D” (1.00) represents a minimum grade necessary to receive credit for the course.

F = Failure.
Awarded to students showing poor understanding of the basic elements of the course.

I = Incomplete.
The “I” grade is used to indicate that a student has missed some portion of the required work because of illness or other emergencies beyond their control. It indicates that the student will most probably complete the missing requirements within the prescribed time limit and, when they do, will probably receive a grade of “D” or better for the course. If there is no way that the student could possibly pass the course, then it is inappropriate to assign an “I” grade. Both the student and faculty member assigning the grade must sign the “Agreement for the Completion of Work Outstanding.” Copies of this form are available in the online public folder, the deans’ offices and the Office of Academic Affairs.

Graduate Courses for Undergraduate Students
Undergraduate students who have earned a minimum of 90 credits and whose cumulative grade point averages are 3.00 and better may enroll in a graduate course with the permission of the respective graduate program director.

Graduation Application Procedures
Students nearing graduation must review graduation requirements with an academic advisor at least two semesters before they plan to graduate, and they must submit an “Application for Graduation” and preliminary certification form to the Office of Academic Affairs. Deadlines are April 15 for a candidate for August or December graduation, and October 15 for a candidate for May graduation. Application for Graduation forms are obtained through the Learning and Advising Center, Office of Academic Affairs and Office of Continuing and Professional Studies.

Graduation Requirements
Certification for a baccalaureate degree may be processed by either the Undergraduate Program or the Continuing and Professional Studies Program, depending on where the majority of the candidate’s credits for the degree were earned. Certification for an associate degree and degree-completion programs administered through the Office of Continuing and Professional Studies will be conducted by that office.

The University holds a Commencement ceremony once each year during the month of May. Students who complete all requirements for graduation by the end of the spring semester may participate in the Commencement ceremony. Degrees are awarded at the end of the term in which all requirements are met. Students who have completed degree requirements in August or December may participate in the Commencement ceremony the following May.

To graduate, students must fulfill the University’s residency requirements, pass all required courses and have a cumulative grade point average of 2.00 or better. A candidate for graduation who earns a cumulative grade point average of 3.60-3.79 will be graduated “cum laude,” or “summa cum laude” if their final cumulative average is 3.80 or better.

Any student who has financial obligations to the University is ineligible for graduation until such obligations have been fulfilled.

Participation in the Commencement ceremony does not necessarily represent conferral of the degree.

See “Residency Requirements.”

Honors Program
The Honors Program welcomes highly motivated students who demonstrated academic excellence in high school or in the first and second semesters at Philadelphia University.

Participants in the Honors Program enjoy advanced levels of inquiry, smaller class sizes, and seminar-style instruction in Honors sections of College Studies courses. In many cases, Honors classes offer opportunities to take advantage of co-curricular experiences in the form of field trips, guest lectures, etc., that help interpret the course material. In addition, Honors Program students can arrange extended borrowing privileges at the University’s library.

Honors Program students are required to complete seven Honors courses. Exciting options for Honors credit range from the traditional Honors courses to individualizing the experience while studying abroad, taking on a leadership role in a community-service project, or tailoring a research project. The senior year capstone course, Contemporary Perspectives, must be taken at the Honors level. In special cases, students can arrange a guided project in courses in
their major (upgrades). Honors course offerings are listed each semester in the University’s master schedule. Students enrolled in Honors courses must take the course for a letter grade. The “pass/fail” or CR/NC option is not available for Honors courses.

Enrollment in Honors courses is designated on the University transcript and remains part of the student’s permanent academic record. Honors Program students’ academic records are reviewed periodically to assure that participants are making acceptable progress toward graduating with the designation of Honors Program Scholar. Students successfully completing all Honors Program requirements with a minimum GPA of 3.3 receive special recognition at graduation, the Honors Medallion and the Honors Certificate.

Human Subjects Policy

Faculty, staff and students at Philadelphia University are occasionally involved in the conduct of research involving human subjects. Any research conducted under the auspices of Philadelphia University must protect the rights of human subjects and requires approval from the University’s Institutional Review Board (IRB). An IRB is a committee of peers that examines human subjects research proposed by Philadelphia University faculty or students for ethical concerns and determines: 1) the rights and welfare of the individual or individuals involved; 2) the appropriateness of the methods used to secure informed consent; and 3) the risks and benefits of the investigation. The IRB approves, denies or recommends changes to the proposed research to assure the protection of the rights of human subjects.

The policies and procedures associated with the review and approval of research involving human subjects at Philadelphia University are established to be consistent with current federal guidelines. The complete text of the “Human Subjects Policy” is published in the University’s Student Handbook.

Independent Study (IS)

In addition to earning credits through formal courses, students may earn credit through a supervised learning experience in which the student plays a significant part in determining the learning objectives and anticipated outcomes. IS provides students a unique opportunity to work closely with a faculty mentor, while studying a subject of their own choice. This learning experience, however, should not duplicate material delivered within an existing catalog course. Only students who are prepared to devote considerable time and effort should undertake IS. Planning of the scope and structure of this learning experience should begin in the semester preceding enrollment, not during the term of the IS.

Before registering for the IS, students must secure the written approval of a faculty member who has agreed to supervise the work. Approval of IS can be expected if the faculty member has the time and the interest to supervise the student’s work and if the supervisor and the student can agree in advance on a suitable subject for independent study. Faculty members may choose which applicants they wish to supervise. The decision will be determined by time available, by their professional interests and by their estimate of an applicant’s prospects for doing suitable work.

Students plan specific activities and goals with the help of the cooperating faculty member. They must then receive approval for their plans from the school dean. The Independent Study agreement form is available from the registrar and from the deans’ offices. The student is responsible for bringing the completed form to the registrar for official enrollment purposes.

Requirements
(additional requirements may exist for each school)
• A student must have completed 15 credits in residence with a minimum grade point average of 2.50 prior to enrolling in independent study.
• Registration must be completed before the end of the (add/drop) period allowed for schedule changes.
• A student may select no more than one course by independent study during a single term.
• A maximum of four courses may be taken by independent study in a degree program.
• A student may not select more than two IS courses under the sponsorship of the same faculty member.
• At the end of the term, students are required to present their work to faculty and student representatives of the University.

See “Course by Appointment.”

Information Literacy

Philadelphia University is committed to graduating students who are effective and creative problem solvers, critical thinkers and creators of new knowledge, team players and lifelong learners. Philadelphia University students learn to be “wise information consumers,” and are empowered to act as both competent employees and informed citizens of the modern global village.

To help achieve this goal, Philadelphia University has developed four institution-wide Information Literacy Outcomes for its students:
• Students will be able to identify and articulate their information needs.
• Students will develop a knowledge base regarding the major formats, delivery mechanisms and organizational structure of information resources.
• Using this knowledge base, students will be able to identify and apply the resources and tools that are most appropriate for specific information problems.
• Students will demonstrate the ability to critically and ethically apply information.

The University’s Information Literacy Initiative, administered through the Paul J. Gutman Library, is a collaborative, campus-wide effort involving classroom faculty, librarians, the University Writing Program, technology and computing
support, and University administrators. Coordinated by the Information Literacy Task Force of the Undergraduate Education Committee, the initiative explores ways to incorporate Information Literacy components into individual courses and assignments, how to assess student achievement of targeted Information Literacy outcomes, and how to support students and faculty throughout the process.

**International Students**

International students should consult with the director of International Student Programs concerning specific policies applicable to them. The director of International Student Programs offers assistance to these students in many areas, such as providing orientation assistance, academic advising assistance, referral to language classes as a result of placement testing and administrative liaison with governmental agencies.

All international students, including transfer students, must report to the International Student Programs office, located in the Student Center, to certify their registration and to provide a local address.

The office is open on a walk-in basis and by appointment.

**Leave of Absence/Withdrawal Policy**

The deadline to withdraw or take a leave of absence from the University without any record of courses or grades from the current semester is the same as the last date to drop a course. When the official form is submitted within the specified deadline, these courses will not appear on the student’s transcript.

Students who need to leave the University after the deadline due to serious extenuating circumstances, must seek permission from the vice president for Academic Affairs for late withdrawal or leave of absence. Students who receive permission will receive “W” grades. These grades will not affect G.P.A. calculations.

When a student withdraws or takes a leave of absence during a semester, the effective date of the leave of absence/withdrawal will be determined when the Office of the University Registrar receives the completed form.

Any student who is in good academic standing is eligible to take a leave of absence from the University for up to one calendar year. A leave of absence allows students to re-enter the University within one calendar year from the date on which the leave was approved without the need for completing a new application.

The leave of absence also enables the student to retain degree requirements from the catalog under which they originally matriculated. Any student may, however, choose to re-enter under requirements in the current catalog. A student whose leave of absence extends beyond two full academic semesters must complete a new application to re-enter the University. Graduation requirements will be determined from the catalog in effect on the date of acceptance for re-entry by the Office of Admissions or the Office of Continuing and Professional Studies.

Students who are not in good academic standing are allowed to apply for withdrawal, but not leave of absence. Under these circumstances, the Undergraduate Academic Standards Committee must approve any application for re-entry before a student registers for any additional courses at the University.

For information about the financial aspects of the leave of absence/withdrawal policy, please refer to the “Refund Policy” included in the “Financial Information” section of the catalog.

**Procedures**

Students begin the process for taking a leave of absence or for withdrawal from the University in the Office of the University Registrar. Students who wish to discuss their decision should meet with their advisor. Evening-division students should contact the Office of Continuing and Professional Studies concerning extended periods of absence or withdrawal.

All students are asked to complete the “Notification of Student Withdrawal/Leave of Absence” form and to return it to the Office of the Registrar. Forms are available in the Office of the University Registrar in Archer Hall. When the effective date of the leave or withdrawal occurs while a semester is in progress, the Office of the University Registrar will notify the student’s instructors about the change in student status. International students must also contact the director of International Student Programs when they plan to withdraw or take a leave of absence from the University.

If it is impossible to process a leave of absence or withdrawal from the University in person, the student should contact the Office of the University Registrar by letter or telephone at 215.951.2991 regarding intentions to take a leave or to withdraw. Official forms will be forwarded to the student to complete with a stamped self-addressed envelope to be returned to the Office of the University Registrar.

**Overload Charges**

If a full-time, undergraduate student is registered for more than five courses (other than physical education or one-credit courses) he/she will be charged at the per-credit rate beyond the five courses.

See “Course Load and Course Overload” and “Financial Information.”

**Part-Time Tuition Charges**

Part-time students (taking fewer than 12 semester credits) are charged at the applicable per-credit rate. See “Financial Information.”
Physical Education

Undergraduates are required to successfully complete two semesters (one credit total) of physical education. These two courses should ordinarily be taken during the freshman or sophomore year.

The University offers a variety of opportunities to earn these credits including traditional instruction, varsity sports or the opportunity to participate in the University’s extensive intramural program.

Additional physical education courses may be taken for elective credit. Grades will be reported as either “Credit” or “No Credit.”

Students who enter the University with an associate or bachelor’s degree, or 54 or more transfer credits, are exempt from this requirement.

See “Attendance.”

Placement Testing

S.T.A.R.T. (for entering undergraduate students)

The University administers a mandatory testing program to all entering undergraduate day-division students. Students complete placement examinations in the areas of reading, writing and mathematics. As a result of these tests, students may be required to take one or more Fundamentals courses. Students must take placement tests before registering for their classes.

See “Fundamental Courses.”

Foreign Language Placement Testing

Students who plan to enroll in French, German, Italian, Japanese or Spanish and who have studied that language for more than two years in high school, or the equivalent level elsewhere, must take the Foreign Language Placement Examination before enrolling in a foreign language course.

Students who have never studied a language or who have had two years or less of the language in which they want to enroll must sign a Foreign Language Placement Examination Exemption Form attesting to this.

It is recommended that students who are native speakers of French, German, Italian, Japanese or Spanish enroll in a language other than their own. Students, however, do have the option of taking challenge examinations to meet this requirement. If after taking the Foreign Language Placement Examination, it appears that the student has adequate preparation, the student may pay a challenge-examination fee, present the receipt to the School of General Studies and complete a challenge examination. Challenge examinations can be taken in French, German, Italian, Japanese or Spanish. Currently enrolled students may not take CLEP examinations for foreign language course credit. Advanced placement credits and transfer credits for appropriate foreign language courses taken at other institutions will be accepted.

See “Advanced Placement,” “Challenge Exam,” and “Transfer Credit.”

Re-entry to the University

A student who wishes to re-enter as a day-division student must submit a Re-entry Application to the Office of Admissions. A student who wishes to re-enter as an evening division student must submit a Continuing Studies Application for Admission form to the Office of Continuing and Professional Studies.

Students who have enrolled at another college or university since their departure from Philadelphia University must present official transcripts from those schools for consideration in re-entry.

Upon receiving their re-entry letter, students must meet with the director of the Learning and Advising Center (day division students) or the director of Student Services (evening students) prior to registering for class.

The Undergraduate Academic Standards Committee will review any application for re-entry from students who were not in good standing when they withdrew (less than 2.00 GPA) or were dismissed from Philadelphia University. During the academic year, the Committee only meets once a month so students should allow adequate time for processing. The subcommittee will also consider applications for re-entry for the fall semester during late May, so students wishing to be evaluated during this summer meeting should submit their requests for re-admission no later than May 15. The Undergraduate Academic Standards Committee must approve any application for re-entry before a student, not in good standing, is allowed to register for additional courses at the University. The student is placed on probation during the first term of re-entry.

See “Academic Standing.”

Refund Policy

Students are considered in attendance until the registrar receives formal written notice of withdrawal.

Tuition refunds will be made to day and online students withdrawing from the University according to the following schedule: 80 percent during the first week of classes, 60 percent during the second week, 40 percent within the third week and no refund thereafter.

Tuition charges for Continuing and Professional Studies students who withdraw from a course will be refunded on the following schedule:

- 100 percent prior to first class meeting,
- 80 percent prior to the second class meeting,
- 60 percent prior to the third class meeting,
- 40 percent prior to the fourth class meeting, and no refund thereafter.

For students taking summer courses, there is a 100 percent refund for courses dropped prior to the first class meeting, 80 percent prior to the second class meeting, 60 percent prior to the third class meeting, and no refund thereafter.

See “Financial Information.”
Registration

Students are expected to register on the published dates for registration. Fees are payable in advance or upon the registration date. Late registrants will be charged a late-registration fee. Students will receive grades for all courses for which they are registered.

Repeating a Course

Students who earn an “F” or “NC” grade are required to repeat the same course during the next term in which it is offered, if the course is the only course that will satisfy the requirement or they wish to have the failing grade replaced on the transcript.

A student will be allowed to enroll in a course for a second time without conditions, regardless of the grade earned in the course previously.

A student will be allowed to re-enroll for a course for a third time when they present the registrar with written approval signed by their academic advisor.

When a course is repeated, the original grade will remain on the transcript, but will be removed from the calculation of the grade point average. The new grade will enter into the calculation of the grade point average — even if it is lower than the grade originally earned. Grades of “NC” or “AUDIT” will not replace a former grade in a repeated course.

A course failed at Philadelphia University may not be repeated at another institution without prior written approval by the vice president for Academic Affairs.

The most recent grade earned is also the one applied to graduation requirements, even if it is lower than the original grade. Any successfully completed course can be applied to graduation requirements only once, no matter how many times it may be taken and passed.

Residency Requirements

To be eligible for graduation with a degree from Philadelphia University, a student must earn a specified minimum number of credits in residence [excluding Fundamentals courses], included in which are six semester credit hours in College Studies courses and 12 semester credit hours in the major core. If a student is pursuing a double major, a second 12 semester credit hours must be completed in residence in the second major core.

To be eligible for graduation with a Bachelor of Science degree:

• Day division students must earn at least 60 semester credit hours in residence at Philadelphia University; and
• Continuing and Professional Studies students must earn a total of at least 33 semester credit hours in residence at Philadelphia University; and
• Students enrolled in the B.S./Health Services Management degree-completion program must earn a total of at least 33 semester credit hours in residence at Philadelphia University.

In the case of transfer from one division to the other, the higher residency requirement will apply.

To be eligible for graduation with an Associate in Science degree [available only through the Division of Continuing Studies], students must earn a total of at least 20 semester-credit hours in residence at Philadelphia University.

Students who need assistance in determining eligible courses in the major core should consult the certifying officers in their respective Schools or division.

Credits earned through challenge exams are applied toward residency requirements.

Unless the Office of Academic Affairs approves a specific exemption, students must be in residence during the semester immediately preceding the awarding of the degree.

Responsibility to Keep Informed

Students are ultimately responsible for their own progress toward graduation; they are expected to use the catalog as a reference handbook and to familiarize themselves with the principal policies and procedures contained in it. The online version of this catalog (www.PhilaU.edu/catalog) will be updated. Students are responsible for monitoring the Web site concerning changes to policies and procedures that might affect their progress toward graduation and regularly check campus mailboxes and Philadelphia University email as a means of keeping informed.

Retention of Student Work

Projects, examinations and assignments completed by students in their required courses may be selected to become part of the University’s collection for purposes of exhibition, assessment and/or accreditation. Student work not selected for that purpose is generally stored for only 30 days into the following semester.

Schedule Changes

Schedule changes must be made within five school days after the start of a semester (a corresponding period of time in summer sessions). Applications for change of program must be completed with the registrar, and no change can be effected without formal approval.

See “Dropping Courses” and “Refund Policy.”

Student Status Based on Completed Credits

Students are generally considered to be classified as freshmen during the first two semesters of full-time study in the University, or as long as they are working toward the completion of their first 30 credits toward the degree. Sophomores are generally considered to have completed more than 30 credits, and to be working toward the completion of up to 60 credits toward the degree. Juniors generally fall in the range of 60 to 90 credits. Students who have completed 90 or more credits are generally classified as seniors.
Time Limit to Degree and Obsolete Credits

Undergraduate students are expected to complete all degree requirements within 10 years from the date of initial matriculation. Students who do not meet this requirement will have their course work, including Philadelphia University credits and previously evaluated transfer credits, reviewed by the appropriate program(s) to determine the currency and appropriateness of courses toward a current degree. As a result of this evaluation, credits may be determined to be “outdated” and removed as earned credit toward the completion of degree requirements. Outdated credits will not be used in the calculation of the cumulative grade point average. Students should note that in some cases, while a particular course may still be offered, a program can determine that material covered by the course has changed substantially enough to determine the original course is outdated. Students are eligible to take a challenge exam for any outdated courses affected by the review process described above.

Students seeking re-entry to Philadelphia University beyond two full academic semesters are subject to the graduation requirements from the catalog in effect at the time of re-entry.

Transcripts

A student may request that an official copy of their transcript be sent to another educational institution or graduate school by the Office of the University Registrar. In addition, unofficial copies of the transcript are available to the student as they may be required.

Requests for a transcript may be made by completing the appropriate form obtained from the Office of the University Registrar or the Office of Continuing and Professional Studies. Alternatively, a request may be mailed to the University registrar containing the following information:

- Student’s full name (including maiden, or other name, if applicable)
- Social Security Number (or student identification number)
- Date of birth
- The last term student was in attendance
- Whether the current semester grades are to be included (when a transcript is ordered before the end of term)
- Agency, college or individual to whom transcript is to be sent, with complete mailing address
- Student’s signature (authorization to release the records)

As a service to students and alumni, transcripts are issued free of charge. A student having financial obligations to the University will not be issued a transcript.

See “Unadjusted Indebtedness.”

Transfer Credit

Transfer credit for coursework at a previously attended institution is generally awarded to the entering transfer student by the Office of Admissions or the Office of Continuing and Professional Studies prior to the student’s initial matriculation at this institution. Transfer credits earned prior to matriculation at Philadelphia University must be submitted within one semester of matriculation.

Undergraduate students should have transcripts sent directly to Admissions. Continuing and Professional Studies students should have transcripts sent to the Office of Continuing and Professional Studies.

The University reserves the right to remove previously awarded transfer credits if a student does not illustrate a proper knowledge of the course material, or if the student does not maintain a satisfactory average.

Credit is usually granted only when the student has earned a grade of “C-” or better in a given course. The University may also consider the age of transfer courses when assigning credits to degree requirements. The appropriate school may be asked to review the credits before awarding transfer credits.

See “Appeal of Adverse Decisions.”

Any student who has questions concerning the transfer-credit evaluation or wishes to appeal a course-equivalency decision should meet with the transfer counselor at the Learning and Advising Center or the director of Student Services as early as possible.

See “Residency Requirements” and “Credit by Examination.”
Unadjusted Indebtedness

No diploma, certificate, official grade report, transcript or recommendation will be granted to any person who has any unadjusted indebtedness to the University.

Withdrawal from the University

It is absolutely essential that students follow the proper withdrawal procedure in order to be assured of an honorable dismissal from the University. Students are considered in attendance until this formal notification is completed and returned to the University Registrar. Withdrawal and leave-of-absence forms are available in the Office of the University Registrar. To return to the University after withdrawal, see the section on “Re-entry to the University.”

See “Leave of Absence/Withdrawal Policy.”
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John Klett  
Director  
B.A., Rider University

Student Life

Mark W. Govoni  
Dean of Students  
B.A., Fairfield University  
M.A., Ph.D., Ohio University

Stephen Spann  
Associate Dean of Students  
B.A., North Carolina State University  
M.A., Appalachian State University

Athletics

Thomas R. Shirley  
Director  
Chair, Department of Physical Education  
B.A., DeSales University  
M.Ed., Temple University

Tony Berich  
Assistant Athletic Director/Director, Sports Information  
B.A., University of Pittsburgh  
M.B.A., Philadelphia University

Angelic Buchanan  
Fitness Center Monitor  
B.S., Temple University

Matthew Connors  
Assistant Sports Information Director/Coordinator of Special Events  
B.A., Vanderbilt University

Brad Koch  
Associate Director of Athletics  
B.A., DeSales University  
M.B.A., Philadelphia University

Amanda Lewis  
Fitness Center Director/Assistant Director of Recreation  
B.S., Ursinus College  
M.S., West Chester University

Herb Magee  
Head Men's Basketball Coach  
B.A., Philadelphia University  
M.Ed., St. Joseph's University

Matt Maust  
Head Athletic Trainer  
B.S., Slippery Rock University  
M.S., West Virginia University

Christopher O'Brien  
Head Coach Men's and Women's Rowing  
Assistant Coordinator of Compliance  
B.A., Villanova University

Erin Pletcher  
Assistant Athletic Trainer  
B.S., University of Pittsburgh  
M.S., James Madison University

Lynn Tubman  
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B.A., DeSales University  
M.Ed., Lehigh University

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Coordinator of Equipment and Facilities  
B.A., Gwynedd Mercy College

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Director  
B.S, M.A., La Salle University

Bryan Barts  
Career Counselor  
B.A., University of Wisconsin at Stout

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Director  
B.A., Marquette University  
M.S.S., Bryn Mawr College
Ron Hathen
Counselor
B.A., Lynchburg College
M.Ed., Antioch – New England Graduate School

Maureen Foy-Tornay
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B.F.A., Indiana University
M.A., Hahnemann University

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B.S., M.S., Thomas Jefferson University

Kristin Patragnoni-Sauter, CRNP
B.S., Georgetown University
M.S., University of California, San Francisco

**International Student Programs**

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**Residence Life**

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B.S., M.S., University of North Dakota

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B.A., Lynchburg College
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B.S., Emerson College

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Executive Sous Chef
Ravenhill Dining Hall

Leon Crockett
Executive Sous Chef
Kanbar

Rick Cuba
Director, Dining Services - Ravenhill

Susan Devine
Retail Manager
B.A., West Chester University

Gerald Hunter
Executive Chef

Jason Lane
Assistant Food Service Director

M. Grace Machaqueiro
Catering Manager
A.S., Antonelli Institute of Art and Photography
Andrew Tran
Assistant Food Service Director
Patricia Viola
Assistant Retail Manager

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Benefits Specialist
B.A. Temple University
Lisa Young
Benefits Specialist

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Director, Mail and Duplicating Services

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Assistant Vice President for Operations
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B.S., Philadelphia University
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Summer Sessions, 2008

Summer-Twelve-week session (SM) Classes begin Monday, May 19
Last day to drop without “W” grade Friday, June 6
Last day to withdraw from course Friday, July 18
Session ends Monday, Aug. 8
Grades due Monday, Aug. 11

Summer 1-Six-week (SM1) Classes begin Friday, May 30
Last day to drop without “W” grade Friday, June 13
Last day to withdraw from course Thursday, June 26
Session ends Friday, July 27
Grades due Monday, Aug. 1

Summer Accelerated (SMA) Classes begin Thursday, July 3
Last day to drop without “W” grade Saturday, Aug. 2
Last day to withdraw from course Monday, Aug. 4
Session ends Monday, Aug. 11
Grades due Friday, July 25

Summer 2-Six-week (SM2) Classes begin Friday, July 11
Last day to drop without “W” grade Friday, Aug. 8
Last day to withdraw from course Monday, Aug. 11
Session ends Monday, Aug. 18
Grades due Monday, Aug. 1

Summer Holidays: No Classes

Academic Calendar

2007/2008

Fall Semester 2007

New day students report Thursday, Aug. 23
Opening academic convocation Thursday, Aug. 23
New day student activities continue Fri, Aug. 24 – Sun, Aug. 26
Residence Halls open for returning students Saturday, Aug. 25
Classes begin, 8:00 AM Monday, Aug. 27
Labor Day: classes in session Monday, Sep. 3
Last day for adding full-term courses, Tuesday, Sep. 4
schedule changes, CR/NC, AU Friday, Sep. 14
Last day to drop without “W” grade Friday, Sep. 21
Summer “I” grades change to failures Saturday, Sept., 22
Yom Kippur: no classes Monday, Oct. 15 - Fri, Oct. 19
Mid-term evaluation week Monday, Oct. 22
Mid-term grades due Friday, Oct. 26
Fall Break: no classes Friday, Nov. 2
Last day to withdraw from a course Wednesday, Nov. 21
Thanksgiving recess: from 5:00 p.m. Wednesday, Nov. 21, 7 p.m.
Thanksgiving recess: Residence Halls close Sunday, Nov. 25, 12 noon
Thanksgiving recess: Residence Halls open Monday, Nov. 26
Classes resume Friday, Dec. 7
Classes end Mon, Dec. 10 – Wed, Dec. 12
Reading / Review Days: no classes Thursday, Dec. 13
Final examinations begin Wednesday, Dec. 19
Final examinations end Thursday, Dec. 20, 10 a.m.
Residence Halls close Thursday, Dec. 20
Grades due/available to students

Spring Semester 2008

Residence Halls open Sunday, Jan. 13
START Program Monday, Jan. 14 – Tuesday, Jan. 15
Classes begin, 8 a.m. Wednesday, Jan. 16
Martin Luther King, Jr. Holiday Thursday, Jan. 17
Last day to add Monday, Jan. 21
Last day to drop without “W” grade Tuesday, Jan. 22
Fall “I” grades change to failures Friday, Feb. 1
Mid-term evaluation week Friday, Feb. 8
Mid-term grades due Monday, Mar. 3
Mid-term recess: classes end, 5 p.m. Friday, Mar. 7
Spring recess: Residence Halls close Monday, Mar. 10
Spring recess: Residence Halls open Friday, Mar. 14
(Good Friday within Spring Break – Mar. 21)
Spring recess: Residence Halls open Friday, Mar. 14, 7 p.m.
Classes resume Sunday, Mar. 23, 12 noon
Classes resume Monday, Mar. 24
Last day to withdraw from a course Friday, Mar. 28
Classes end Friday, May 2
Reading / Review Days: no classes Monday, May 5 – Wednesday, May 7
Final examinations begin Thursday, May 8
Final examinations end Wednesday, May 14
Grades due/available to students Thursday, May 15
Residence Halls close Thursday, May 15, 10 a.m.
Commencement Sunday, May 18

2007 - 2008 Undergraduate Catalog Philadelphia University
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<tr>
<td>Academic Affairs</td>
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